

001 – PM-1055 Rev 0X-Q

Analysis No. PM-1055		Revision 0		Last Page No. 18 Att. L pg 1	
EC/ECR No. PB02-00838		Revision 0			
Title: Calculation of Alternative Source Term (AST) Onsite and Offsite X/Q Values					
Station(s)	Peach Bottom Atomic Power Station	Component(s)			
Unit No.:	2 and 3				
Discipline	SEAQ				
Description Code/	Dispersion				
Keyword					
Safety Class	S				
System Code	912				
Structure	NA				
CONTROLLED DOCUMENT REFERENCES					
Document No.	From/To	Document No.	From/To		
Drawing No. M-7, Rev. 13	From	Calculation No. PM-0856, Rev. 0	To		
Drawing No. M-18, Rev. 11	From	Calculation No. PM-0859, Rev. 0	To		
Drawing No. M-19, Rev. 9	From	Calculation No. PM-0860, Rev. 0	To		
UFSAR, Section 2.3, Rev. 18	From/To				
Calculation No. PM-0857, Rev. 0	To				
Is this Design Analysis Safeguards?		Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			
Does this Design Analysis Contain Unverified Assumptions?		Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> ATI/AR#			
Is a Supplemental Review Required?		Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, complete Attachment 3			
Preparer	Traci Thomas	<u>Traci Thomas</u>	<u>Traci Thomas</u>	03-20-03	
		Print Name	Sign Name	Date	
Reviewer	Jack Robinson	<u>Jack Robinson</u>	<u>Jack Robinson</u>	03-20-03	
		Print Name	Sign Name	Date	
Method of Review	<input checked="" type="checkbox"/> Detailed Review <input type="checkbox"/> Alternate Calculations <input type="checkbox"/> Testing				
Review Notes:					
Approver	Harold Rothstein			03-20-03	
		Print Name	Sign Name	Date	
(For External Analyses Only)					
Exelon Reviewer	Thomas J. McIsaac	<u>Thomas J. McIsaac</u>	<u>Thomas J. McIsaac</u>	3/24/03	
		Print Name	Sign Name	Date	
Approver	James Jordan	<u>James Jordan</u>	<u>James Jordan</u>	3/27/03	
		Print Name	Sign Name	Date	
Description of Revision (list affected pages for partials):					

THIS DESIGN ANALYSIS SUPERCEDES:

6.0 OWNER'S ACCEPTANCE REVIEW CHECKLIST FOR EXTERNAL DESIGN ANALYSIS

DESIGN ANALYSIS NO. PM-1055 REV: 0

	Yes	No	N/A
1. Do assumptions have sufficient rationale?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Are assumptions compatible with the way the plant is operated and with the licensing basis?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Do the design inputs have sufficient rationale?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Are design inputs correct and reasonable?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Are design inputs compatible with the way the plant is operated and with the licensing basis?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Are Engineering Judgments clearly documented and justified?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Are Engineering Judgments compatible with the way the plant is operated and with the licensing basis?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Do the results and conclusions satisfy the purpose and objective of the design analysis?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Are the results and conclusions compatible with the way the plant is operated and with the licensing basis?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Does the design analysis include the applicable design basis documentation?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Have any limitations on the use of the results been identified and transmitted to the appropriate organizations?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Are there any unverified assumptions?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
13. Do all unverified assumptions have a tracking and closure mechanism in place?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

EXELON REVIEWER:

T.J. McIsaac
Print / Sign

DATE:

3/21/03

CALCULATION TABLE OF CONTENTS

1.0	PURPOSE/OBJECTIVE	2
2.0	ARCON96 MODELING ANALYSIS OF CONTROL ROOM X/Q.....	2
2.1	Methodology and Acceptance Criteria	3
2.2	Design Input	4
2.2.1	Source Configuration	4
2.2.2	Receptors.....	4
2.2.3	Meteorological Data.....	4
2.2.4	ARCON96 Run Scenarios	6
2.3	Calculations	7
3.0	PAVAN MODELING ANALYSIS OF CONTROL ROOM, EAB and LPZ X/Q	8
3.1	Methodology and Acceptance Criteria	8
3.2	Design Input	9
3.2.1	Source Configuration	9
3.2.1.1	Releases for Control Room Intake X/Q Evaluation.....	9
3.2.1.2	Releases for EAB and LPZ X/Q Evaluation	9
3.2.2	Receptors.....	10
3.2.3	Meteorological Data.....	11
3.2.4	PAVAN Run Scenarios.....	12
3.2.4.1	Off-Gas Stack	13
3.2.4.2	Reactor Building Stacks	13
3.3	Calculations	14
4.0	SUMMARY AND CONCLUSIONS	17
5.0	REFERENCES	18

ATTACHMENTS:

- A. Location of Meteorological Instruments [Sheet 1]
- B. Elevations of Meteorological Instruments and Gaseous Release Points [Sheet 1]
- C. Drawing: Excerpted from Station Drawing C-21 [Sheet 1]
- D. Drawing: Excerpted from Station Drawing M-5 [Sheet 1]
- E. Wind Roses [Sheets 1-5]
- F. Wind Direction Occurrence Frequency Bar Charts [Sheets 1-2]
- G. Stability Class Occurrence Frequency Bar Chart [Sheet 1]
- H. Joint Frequency Distributions [Sheet 1-5]
- I. ARCON96 Input and Output [Sheets 1-35]
- J. PAVAN Input and Output [Sheets 1-1411]
- K. ARCON96 Computer Disclosure Sheet [Sheet 1]
- L. PAVAN Computer Disclosure Sheet [Sheet 1]

1.0 PURPOSE/OBJECTIVE

This calculation, PM-1055, presents the atmospheric relative concentration (X/Q) values for Alternative Source Term (AST) accident evaluations. The purpose of this calculation is to determine the Control Room, Exclusion Area Boundary (EAB), and the outer boundary of the Low Population Zone (LPZ) relative concentration values (X/Q , in sec/m^3) resulting from certain postulated accidental radiological releases from the Peach Bottom Atomic Power Station (hereinafter, the Station). The values resulting from this calculation will serve as input to the calculation of the radiological doses for use of the Alternative Source Terms (AST) per Regulatory Guide 1.183 (Reference 1).

The X/Q values resulting at the Control Room Intake are calculated using the NRC-sponsored computer codes ARCON96 (Reference 2) and PAVAN (Reference 3), consistent with the procedures in Draft Regulatory Guide DG-1111 (Reference 4). This analysis is presented in Section 2.

The X/Q values resulting at the EAB and LPZ are calculated using the NRC-sponsored computer code PAVAN, consistent with the procedures in Regulatory Guide 1.145 (Reference 5). This analysis is presented in Section 3.

Meteorological data utilized for this calculation were selected from the historical record of the Station meteorological monitoring tower network. Monitoring records dating back to 1967 and extending through 2001 were provided by Exelon (Reference 6). Washington Group International's (WGI) examination of the subject Station release locations and configurations in conjunction with the sharply varying topography (both in the vicinity of the release and at the desired receptor locations to be addressed) resulted in the selection of three (3) different towers from which representative data for the X/Q modeling analyses were used. The topography in the vicinity of the Station and the monitoring tower locations can be observed on the map that is contained in Attachment A (Reference 7). Topographic cross-sectional profiles depicting the meteorological monitoring towers and the station stacks are provided in Attachment B (Reference 8). It was desired that this calculation be based upon a continuous five-year period of data common to all 3 towers, and for which available data meet NRC Regulatory Guide 1.23 (Reference 9) specifications. The period of 1984 through 1988 was selected.

2.0 ARCON96 MODELING ANALYSIS OF CONTROL ROOM X/Q

ARCON96 is a commercial software package designated by WGI as NU-830, an "active" program applicable to nuclear safety related analyses as well as non-safety related studies and evaluations. Its use is principally control room habitability assessments. The NU-830 code has been verified for 0-2 hour, 2-8 hour, and 8-24 hour centerline and sector X/Q averages and the 95% maximum X/Q . This verification is in accordance with Revision 4 of the Washington Group International Nuclear Engineering Standard or Computer Software Control, NEP-09. Revision 0 of NU-830 was verified for ground-level and zero exit velocity uncapped vents, and Revision 1 was verified for zero exit velocity stack releases.

2.1 Methodology and Acceptance Criteria

ARCON96 Program Description [excerpted from NUREG/CR-6331 Rev. 1]

ARCON96 is a straight line Gaussian dispersion model used in control room habitability assessments for estimating dispersion in the vicinity of buildings to calculate relative concentrations at control room air intakes that would be exceeded no more than five percent of the time. The basic diffusion model implemented in the ARCON96 code is a straight-line Gaussian model that assumes the release rate is constant for the entire period of release. This assumption is made to permit evaluation of potential effects of accidental releases without having to specify a complete release sequence. Ambient atmospheric conditions measured in accordance with Regulatory Guide 1.23 are input to ARCON96 by way of a sequential hour-by-hour meteorological database of jointly measured wind speed, wind direction, and Pasquill stability class, as derived from the vertical temperature difference recorded at a representative location and elevation (i.e., tower level).

ARCON96 permits evaluation of ground-level, vent, and elevated releases. Building wake effects are considered in the evaluation of relative concentrations from ground-level releases. The proportion of the mixture is determined by the ratio between the effluent vertical velocity and the release-height wind speed using the procedure included in the NRC XOQDOQ code (Reference 10). An elevated release, defined as a stack more than 2.5 times the height of structures in the immediate vicinity, is treated in the usual manner with correction for stack downwash and differences in terrain elevation between the stack and the control room intake. With an assumed zero (0) vertical exit velocity, vents are treated as ground-level releases. Otherwise, a vent release is treated as a mixed ground-level and elevated release.

Diffusion coefficients used in ARCON96 have three components. The first component is the diffusion coefficient used in other NRC models, for example XOQDOQ, and PAVAN. The other two components are corrections to account for enhanced dispersion under low wind speed conditions and in building wakes. Derivations of the low wind speed and building wake corrections are described by Ramsdell and Fosmire (Reference 11).

Parameter values for the correction factors are based on analysis of diffusion data collected in various building wake diffusion experiments. The experiments were conducted under a wide range of meteorological conditions. However, a large number of experiments were conducted during low wind speeds, when wake effects are minimal. The wake correction model included in ARCON96 treats diffusion under these conditions much better than previous models. Thus, the diffusion coefficients in ARCON96 account for both low-wind speed meander and wake effects.

ARCON96 calculates relative concentrations using hourly meteorological data. It then combines the hourly averages to estimate concentrations for periods ranging in duration from 2 hours to 30 days. Wind direction is considered as the averages are formed. As a result, the averages account for persistence in both diffusion conditions and wind direction. Cumulative frequency distributions are prepared from the average relative concentrations. Relative concentrations that are exceeded no more than five percent of the time (95th percentile relative concentrations) are determined from the cumulative frequency distributions for each averaging period. Finally, the relative concentrations for five standard averaging periods used in control room habitability assessments are calculated from the 95th percentile relative concentrations.

2.2 Design Input

2.2.1 Source Configuration

The Off-Gas Stack and the Units 2 and 3 Reactor Building Stacks are executed by ARCON96 as an elevated stack release and vent releases, respectively. As depicted in Attachments A and B, the Off-Gas Stack has a physical height of 500 ft and is located to the west-southwest of the Station on terrain that is 280 ft msl (164 ft above station grade of 116 ft msl, per Reference 16). This stack is greater than 2.5 times the 174 ft high Reactor Buildings (i.e., the highest adjacent building), and therefore, per Regulatory Guide 1.145, it is modeled as an 'elevated' release, which is not subject to building-induced downwash effects. The Reactor Building Stacks, both having a height of 189 ft above station grade, and located at the center of the east face of their respective 174 ft high Reactor Buildings, were modeled as 'vent releases'.

Both the Off-Gas Stack and the Reactor Building Stacks are conservatively assumed to have a zero (0) flow, for which ARCON96 requires that the exit velocity and stack diameter each be assigned an input value of zero (0). The Reactor Building vertical cross-sectional area of 2584 m² (calculated as height = 54.3 m, and w = 47.6 m, based on References 12 and 13), was required to be input to ARCON96.

Attachment C shows the location of the Off-Gas Stack (highlighted in green) and Attachment D shows the Units 2 and 3 Reactor Building Stacks (highlighted in pink and yellow, respectively).

2.2.2 Receptors

The model ARCON96 was executed for X/Q at the Control Room Intake (highlighted orange in Attachments C and D), which is centered on the west face of the Radwaste Building at a height of 69 ft above grade.

The direction, relative to true north (assumed 0°) of a straight line extending from the Control Room Intake towards the stack source location, is also an input parameter required by ARCON96. Attachments C and D depict the three (3) separate intake-to-stack direction scenarios analyzed in this calculation. They are as follows:

	Direction (degrees)	Distance (m)
	<u>Intake to Stack</u>	<u>Intake to Stack</u>
• Off-Gas Stack (highlighted green)	244	209
• Unit 2 Reactor Building Stack (highlighted pink)	113	58.4
• Unit 3 Reactor Building Stack (highlighted yellow)	15	58.4

2.2.3 Meteorological Data

As described in Section 1.0, the Station's meteorological data from the five-year period, 1984-1988, as supplied by Exelon, were applied in the ARCON96 modeling analysis. Data measured at two meteorological towers were used.

Meteorological Tower 2 is seen in Attachments A and B to be located on a hill approximately 2600 ft (800) meters from the Reactor Building Stacks. Tower 2 has a grade elevation of 367 ft above mean sea level (msl), or 251 feet (76.5 meters) above station grade. Tower 1A, on the other hand, is located at 119 ft msl approximately 1300 m southeast of the Reactor Building stacks, and is also topographically situated very similarly to the Station; i.e., at the Susquehanna River's edge and immediately adjacent to the steeply higher terrain in the westerly, southwesterly, and southerly directions.

Attachment E, Sheets 1, 2, and 3 of 5, includes the five-year wind rose diagrams for each of the three (3) primary wind speed and direction databases used for the ARCON96 analysis identified below in Section 2.2.4, Table 2-1. These are as follows:

Wind

- Tower 2: 320 ft level
- Tower 2: 75 ft level
- Tower 1A: 92 ft level

The designation of 'calm' is made to all wind speed observations of less than 0.5 mph. The higher of the starting speeds of the Climatronics® wind vane and anemometer equipment on each of the towers (i.e. 0.50 mph) was used as the threshold for calm winds, per Regulatory Guide 1.145, Section 1.1.

Attachment F, Sheet 1 of 2, provides a bar chart for comparing the percentage occurrence frequencies of each wind direction sector with respect to the three different wind databases used in the ARCON96 analysis. This chart shows that the two Tower 2 levels are very similar, while the Tower 1A wind directions show much deviation from Tower 2. In particular, the location of Tower 1A, based in the River Valley near river level, experiences a noticeably higher frequency of east-southeast and southeast winds, reflective of the Valley's wind channeling effect. Also, the significantly higher frequency of west and west-southwesterly winds likely reflects the local channeling by the small contributory valley seen in Attachment A between two hills centered just several hundred feet to the southwest and west-northwest of Tower 1A.

The stability class percentage occurrence frequency distributions are presented as a bar chart in Attachment G, based on each of the three (3) five-year delta temperature databases used in the ARCON96 analysis.

Stability Class

- Tower 2: 316 - 33 ft level
- Tower 2: 150 - 33 ft level
- Tower 1A: 89 - 33 ft level

It must be noted that the 0 % occurrence of 'B' stability class associated with Tower 1A, as shown in Attachment G results from the fact that the temperature was recorded and reported with a precision of tenths (rather than hundredths) of a degree Fahrenheit. The range in the delta temperature value that is assigned to the 'B' stability class by NRC Regulatory Guide 1.23 is non-inclusive of a value that would result from the conversion from Fahrenheit, given in tenths precision, to Centigrade.

Attachment G shows an extremely high 'G' stability class occurrence frequency of 27.1 %, which is derived from the Tower 1A delta temperature data. This value is much larger than those of Tower 2. This reflects the prevalent cold air drainage flow into the River Valley from

the higher terrain during nocturnal, light wind speed, temperature inversion conditions. Some exaggeration of this difference in comparison to Tower 2 (e.g., 5.5 % G stability for 150-33 ft delta temperature) would also be expected, however, because of the larger vertical spread between the two lower temperature measurement levels of Tower 2 (i.e., 117 ft) versus the Tower 1A levels (i.e., 56 ft). (That is, within the atmosphere's surface boundary layer, vertical temperature gradient (positive or negative) normally increases with proximity to the ground.) This effect also partially accounts for the large difference in the percentage of 'A' stability occurrence between Tower 1A and Tower 2. The fact that no 'B' stability cases are possible in the Tower 1A database (as noted above), of course, also acts to somewhat inflate the 'A' and 'C' occurrences. It is important to note, however, that these unstable classes (A, B, and C) are relatively insignificant contributors in the design basis X/Q calculations for ground and vent releases.

Finally, Attachment H, Sheets 1, 2, and 3 of 5, contains the joint wind direction, wind speed, and stability class distribution tables, based on the five-year period for each of the following three joint wind-stability databases used in the ARCON96 modeling analysis.

Wind	Stability Class
• Tower 2: 320 ft level	Tower 2: 316 - 33 ft
• Tower 2: 75 ft level	Tower 2: 150 - 33 ft
• Tower 1A: 92 ft level	Tower 1A: 89 - 33 ft

The relatively high percentage of 'G' stability occurrences in the Tower 1A joint wind-stability distribution are very direction-dependent. A total of 91.5% of all 'G' stability occurrence frequencies in the Tower 1A data can be determined from Attachment H, Sheet 3, to be associated with winds from the southeast clockwise through the west-northwest 180° directional range from the Tower. This directional range essentially encloses the high terrain from which the relatively cold near-surface air during nocturnal inversion conditions drains into the Valley. (See Attachment A for the topographic map of terrain in the vicinity of the Station.) Attachment H also reveals that nearly all of the total 'G' stability occurrences are associated with wind speed of less than 7.5 mph.

2.2.4 ARCON96 Run Scenarios

Control Room Intake X/Q values were calculated by ARCON96 for various source/receptor scenarios. Three (3) Off-Gas Stack and Reactor Building Stack release scenarios were analyzed using the five-year hourly meteorological joint wind and stability databases, as identified in Table 2-1.

TABLE 2-1

ARCON96 RELEASE SCENARIO	METEOROLOGICAL DATABASE SCENARIOS		
	Wind Speed and Direction		Stability Class (Delta Temperature)
	Primary	Secondary*	
1: Off-Gas Stack	Tower 2: 320'	Tower 2: 75'	Tower 2: 316 - 33'
2: Unit 2 Reactor Building Stack	Tower 1A: 92' Tower 2: 75'	Tower 1A: 34' Tower 2: 33'	Tower 1A: 89 - 33' Tower 2: 150 - 33'
3: Unit 3 Reactor Building Stack	Tower 1A: 92' Tower 2: 75'	Tower 1A: 34' Tower 2: 33'	Tower 1A: 89 - 33' Tower 2: 150 - 33'

* Secondary data used only for those hours when primary data are missing.

The upper level of Tower 2 is the obvious most representative location of choice for wind data representing the Off-Gas Stack release point, and the 316–33 foot delta temperature is the appropriate parameter for deriving stability class to represent the influence of atmospheric diffusion on such a release.

As noted in Section 2.2.1, the Reactor Building Stacks are not tall enough to avoid building-induced downwash; therefore, with zero (0) exit velocity having been assumed, ARCON96 treats their releases as a 'ground-level' type. Accordingly, the Tower 1A data would appear to be the representative database for the Reactor Building stacks. However, since these stack tops are at 305 ft msl, and thus, are actually nearer in the vertical to the Tower 2 grade elevation (367 ft msl) than they are to the Tower 1A grade elevation (119 ft msl), an ARCON96 analysis is also performed using the most appropriate Tower 2 data, as indicated in Table 2-1 above.

2.3 Calculations

The X/Q values resulting from the ARCON96 modeling analysis of each release and meteorological database scenario for the required time intervals are presented in Table 2-2 as follows:

TABLE 2-2

ARCON96 X/Q (sec/m³) RESULTS*

RELEASE / INTAKE & METEOROLOGICAL SCENARIO	0-2 hour	2-8 hour	8-24 hour	1-4 day	4-30 day
1. Off-Gas Stack to Control Room Intake: • Wind: Tower 2 320° Stability: Tower 2 316–33°	1.00E-15	1.00E-15	1.00E-15	7.25E-15	5.92E-15
2. Unit 2 Reactor Building Stack To Control Room Intake: • Wind: Tower 1A 92° Stability: Tower 1A 89–33° • Wind: Tower 2 75° Stability: Tower 2 150–33°	1.17E-03 1.18E-03	9.08E-04 8.55E-04	4.14E-04 3.50E-04	2.90E-04 2.36E-04	2.26E-04 1.67E-04
3. Unit 3 Reactor Building Stack To Control Room Intake: • Wind: Tower 2 92° Stability: Tower 2 89–33° • Wind: Tower 2 75° Stability: Tower 2 150–33°	1.02E-03 1.18E-03	5.02E-04 8.91E-04	2.38E-04 4.00E-04	1.62E-04 2.51E-04	1.36E-04 1.98E-04

* For the Units 2 and 3 stack release scenarios, the higher of the X/Q values associated with the two meteorological databases analyzed is in bold.

3.0 PAVAN MODELING ANALYSES OF CONTROL ROOM, EAB AND LPZ X/Q

The model PAVAN is a commercial software package designated by WGI as MC-131, an "active" program applicable to nuclear safety related analyses as well as non-safety related studies and evaluations. The PAVAN code Revision 0 verification was performed for the 0-2 hour, 0-8 hour, 8-24, 1-4 day, and 4-30 day 0.5-percentile, and annual average direction-specific X/Q values, and the overall site 95-percentile maximum X/Q for each of the 0-2 hour, 0-8 hour, 8-24 hour, 1-4 day, and 4-30 day time-averaging periods. This verification was performed with WGI (formerly Raytheon Engineers & Constructors, Inc.) corporate standards, and is consistent with Computer Software Control, NEP-09. Revision 0 of MC-131 was verified for ground-level (i.e., non-elevated) releases, as well as elevated releases, with zero (0) vertical exit velocity assumed.

While its use is principally for EAB and LPZ X/Q evaluations, PAVAN is also referenced for use in accordance with NRC DG-1111 methodology for control room habitability assessments of elevated releases. In supplement to the use of ARCON96 for this purpose, NRC recommends that PAVAN also be executed, and its results incorporated into the determination of the 0-2 hour, and the 1-4 and 4-30 day X/Q time intervals. The maximum PAVAN X/Q at ground-level (excluding the 'fumigation' condition) replaces the corresponding ARCON96 0-2 hour value if the PAVAN value is greater. For deriving the two longer interval X/Q values, the maximum PAVAN 1-4 day X/Q is added to the product of 23 times the maximum 1-4 day ARCON96 value, and then the total is divided by 24, resulting in the final X/Q value for the 1-4 day interval value; and similarly, the maximum PAVAN 4-30 day X/Q is added together with the product of 23 times the maximum 4-30 day ARCON96 value and then divided by 24 to obtain the X/Q value for the 4-30 day interval value.

3.1 Methodology and Acceptance Criteria

The computer code PAVAN is a straight line Gaussian dispersion model utilized to estimate relative ground-level air concentrations (X/Q) for potential accidental releases of radioactive material from nuclear facilities. Such assessment is required by 10 CFR 100 and 10 CFR 50. The program implements the NRC guidance provided in Regulatory Guide 1.145. The technical basis for the program is presented by Snell and Jubach (Reference 14). Utilizing joint frequency of occurrence distributions of wind direction, wind speed and Pasquill atmospheric stability class, PAVAN calculates X/Q values as a function of direction for various time-averaging periods at the EAB and the outer boundary of the LPZ. Calculations are made from assumed ground-level (i.e., non-elevated) releases (such as vents and building penetrations), which are less than 2.5 times the height of adjacent solid structures, and from elevated releases (i.e., stacks). Three (3) procedures are utilized for calculating X/Q: a direction-dependent approach, a direction-independent approach, and an overall site X/Q approach.

The PAVAN model contains certain model options for executing the program. Table 3-1 below summarizes the options invoked for the Control Room, EAB and LPZ X/Q calculations.

TABLE 3-1

Option No.	Description	Option Invoked?
1	Calculate σ_y and σ_x based on desert diffusion.	No
2	X/Q values include evaluation for no building wake.	No
3	ENVLOP calculations printed which describe upper envelope curve.	No
4	Print points used in upper envelope curve and calculation.	Yes
5	Null	---
6	Joint frequency distribution in % frequency format.	No
7	Print X/Q calculation details	Yes
8	Distribute calm winds observations into first wind speed category.	Yes
9	Use site-specific terrain adjustment factors for the annual average calculations.	Yes*
10	Assume a default terrain adjustment factor for the average annual calculations. Option 10 is applied, which together with application of Option 9 means that site specific terrain factors will be used.	Yes

* A uniform value of 1.0 is used.

3.2 Design Input

3.2.1 Source Configuration

3.2.1.1 Releases for Control Room Intake X/Q Evaluation

The Off-Gas Stack and the Units 2 and 3 Reactor Building Stacks are the assumed release points. Because the Units 2 and 3 Reactor Building Stacks do not qualify as 'elevated' releases as defined by Regulatory Guide 1.145, in accordance with DG-1111 methodology no PAVAN modeling (i.e., only ARCON96 modeling) is appropriate for the Control Room assessment.

The Off-Gas Stack, however, does qualify as an elevated release and was executed as such by PAVAN, per DG-1111. Also per DG-1111, the effective height of the stack was calculated from the height of the Control Room Intake instead of station grade. The Off-Gas Stack, as seen highlighted in green in Attachment C, has a height of 500 ft and is located 209 m on terrain that is 280 ft msl (i.e., 164 ft above station grade) to the west-northwest of the Control Room Intake. PAVAN does not have the capability to account for the difference between the station grade and the much higher Off-Gas Stack grade. Therefore, assuming zero (0) grade difference between release and intake is a very conservative measure.

The vertical cross-sectional area of 2584 m² for each Reactor Building calculated based on References 12 and 13, was utilized. A value of zero (0) meters above the assumed common grade elevation of the Off-Gas stack and the Station was input to PAVAN to represent the maximum terrain height for each of the downwind sectors at all modeled distances.

3.2.1.2 Releases for EAB and LPZ X/Q Evaluation

The Off-Gas Stack and the Units 2 and 3 Reactor Building Stacks were executed by PAVAN as a 'stack' type and 'ground' type releases, respectively.

As previously stated, the Off-Gas Stack has a physical height of 500 ft and is located to the west-southwest of the Station on terrain that is 280 ft msl (164 ft above station grade). As described in 3.2.1.1 for the Control Room Intake, in modeling the EAB and LPZ scenarios, the station grade was also assumed equal to the Off-Gas Stack grade.

The 189 ft Reactor Building Stacks for Units 2 and 3, located at the center of the east face of their respective Reactor Buildings, do not qualify as elevated releases per Regulatory Guide 1.145. Therefore, PAVAN requires that each of these stack heights be assigned an input value of 10 m. The Reactor Building height of 54.3 m and calculated Reactor Building vertical cross-sectional area of 2584 m² were used for each of the scenarios.

3.2.2 Receptors

For the Off-Gas Stack to Control Room Intake scenario, PAVAN was executed in elevated release mode with a stack-to-intake horizontal distance of 209 m. For conservatism in modeling this scenario, the Off-Gas Stack was assumed to have the same grade elevation as the Station. Review of this output was then performed in accordance with NRC DG-1111 guidance to determine at which approximate distance the actual 0-2 hour maximum X/Q is predicted to occur in each given downwind sector. Following this, a new set of PAVAN runs was executed for several distances ranging out to and exceeding the approximated distance. The initial predicted approximate distance to the maximum 0-2 hour X/Q was 4000 m. Therefore, in all, the distances modeled to determine the actual maximum X/Q are as follows: 209 (actual), 280, 300, 500, 750, 1000, 1500, 2000, 3000, 4000, 5000, and 6000 meters.

The PAVAN model was also executed to determine the ground-level X/Q at the EAB and LPZ located at distances of 823 m and 7300 m, respectively, as defined in Reference 15. For the assumed non-elevated Reactor Building Stack scenario, receptor terrain is not considered. For the elevated Off-Gas Stack scenario, the highest terrain value within a given directional sector between the Station and the EAB was assigned to the EAB receptor in that given direction. The LPZ terrain heights were analogously assigned. These terrain heights are provided in Table 3-2 below.

TABLE 3-2

HIGHEST INTERVENING TERRAIN BETWEEN SITE AND EAB, AND LPZ
(Meters Above Off-Gas Stack Grade)

DOWNWIND DIRECTION	EAB (823 m)	LPZ (7300 m)	DOWNWIND DIRECTION	EAB (823 m)	LPZ (7300 m)
N	0	110	S	31	55
NNE	0	85	SSW	31	61
NE	0	85	SW	18	128
ENE	0	67	WSW	12	104
E	0	48	W	24	73
ESE	0	67	WNW	31	98
SE	0	43	NW	31	104
SSE	0	43	NNW	24	85

3.2.3 Meteorological Data

As described in Section 1.0, Peach Bottom meteorological data from the five-year period, 1984-1988, as supplied by Exelon, were used in the PAVAN analysis. Data monitored at three meteorological towers were used.

The format of PAVAN meteorological input consists of a joint wind direction (based on sixteen 22.5 degree sectors), wind speed (7 intervals), and stability class (7 classes) occurrence frequency distribution.

Each such meteorological joint frequency distribution for input to PAVAN was prepared by using the WGI pre-qualified program ARCONtoPAVANMET (Program Number NU-840) to transform the data to a joint wind-stability occurrence frequency distribution. The seven wind speed categories were defined according to Regulatory Guide 1.23 with the first category identified as "calm". The higher of the starting speeds of the Climatronics® wind vane and anemometer equipment on each of the towers (i.e. 0.50 mph) was used as the threshold for calm winds, per Regulatory Guide 1.145, Section 1.1. A midpoint was also assumed between each of the Regulatory Guide 1.23 wind speed categories, Nos. 2-6, as to be inclusive of all monitored wind speeds. The Regulatory Guide 1.23 wind speed categories have, therefore, been refined in Table 3-3 as follows:

TABLE 3-3

DEFINED WIND SPEED CATEGORY RANGES FOR PAVAN MODELING

Category No.	Regulatory Guide 1.23 Speed Interval (mph)	PAVAN-Assumed Speed Interval (mph)
1 (Calm)	0 to < 1	0 to < 0.50
2	1 to 3	>= 0.50 to < 3.5
3	4 to 7	>= 3.5 to < 7.5
4	8 to 12	>= 7.5 to < 12.5
5	13 to 18	>= 12.5 to < 18.5
6	19 to 24	>= 18.5 to < 24
7	> 24	>= 24

Attachment E, Sheets 1, 4, and 5 includes the five-year wind rose diagrams for each of the following three wind speed and direction modeling databases applied in the PAVAN analysis:

- Tower 2: 320 ft level
- Tower 2: 33 ft level
- River Tower: 45 ft level

Attachment F, Sheet 2 provides a bar chart comparing the percentage occurrence frequencies of each wind direction sector with respect to the three wind databases. As expected, the Tower 2 upper (320 ft) and lower level (33 ft) wind direction occurrence distributions are very similar to each other, but the River Tower data are clearly much more indicative of the influence of the Valley in channeling air within it predominantly along a northwest – southeast orientation. The very high correspondence in the Tower 2 lower level with the upper level is strong evidence that

the lower level conditions are far more representative of the air flow in the larger scale non-valley region surrounding the Station than within the local valley setting of the station proper.

The same three (3) delta temperature stability class databases utilized for the ARCON96 analysis described above in Section 2.2.3 were also adopted for the PAVAN analysis. These are the Tower 2 316 – 33 ft, the Tower 2 150 – 33 ft, and the Tower 1A 89 – 33 ft delta temperature databases. Attachment G presented earlier in Section 2.2.3 shows the percentage occurrence frequencies of each class.

Finally, Attachment H, Sheets 1, 4, and 5 of 5 provide the joint occurrence frequency distribution tables based on the five-year period for each of the following three joint wind-stability databases used in the PAVAN modeling analysis:

<u>Wind</u>	<u>Stability Class</u>
• Tower 2: 320 ft level	Tower 2: 316 - 33 ft
• Tower 2: 33 ft level	Tower 2: 150 - 33 ft
• River Tower: 45 ft level	Tower 1A: 89 - 33 ft

As discussed in Section 2.2.3 with respect to the ARCON96 X/Q analysis at the Control Room Intake, there is a relatively high percentage of G stability occurrences monitored at Tower 1A, reflecting the prevalent nocturnal drainage wind from directions of immediately adjacent higher terrain into the Valley. However, for the PAVAN modeling analysis of X/Q at receptors away from the immediate station site (i.e., that is, the two rings of receptors associated with the EAB and LPZ), the Tower 1A location is not well-located for monitoring representative wind data, particularly wind direction; and therefore, the Tower 2 data are primarily relied upon. One exception is for modeling the Reactor Building stack at the EAB distance in those downwind directions extending part-way over the River, the Tower 1A delta temperature-derived stability class may well be more representative than the Tower 2 stability data. Consequently, the River Tower wind data are adopted jointly with the Tower 1A stability data and used as an additional meteorological database scenario to be analyzed by PAVAN for the EAB. (See Section 3.2.4.2.)

3.2.4 PAVAN Run Scenarios

The following Off-Gas Stack and Reactor Building stack release scenarios were identified for the purpose of applying the PAVAN model using the selected representative meteorological wind and stability class databases to predict the X/Q values that result at the Control Room Intake as described in 3.2.1.1, and at the EAB and LPZ as described in Section 3.2.1.2. They are listed in Table 3-4 as follows:

TABLE 3-4

PAVAN X/Q SCENARIOS		
RELEASE/RECEPTOR SCENARIO	METEOROLOGICAL DATABASE SCENARIOS (Tower ID: Measurement Height above Tower Grade)	
	Wind Speed and Direction	Stability Class (Delta Temperature)
CONTROL ROOM:		
• Off-Gas Stack	Tower 2: 320'	Tower 2: 316 – 33'
FAB:		
• Off-Gas Stack	Tower 2: 320'	Tower 2: 316 – 33'
• Unit 2 Reactor Building Stack	River Tower: 45' Tower 2: 33'	Tower 1A: 89 – 33' Tower 2: 150 – 33'
• Unit 3 Reactor Building Stack	River Tower: 45' Tower 2: 33'	Tower 1A: 89 – 33' Tower 2: 150 – 33'
LPZ:		
• Off-Gas Stack	Tower 2: 320'	Tower 2: 316 – 33'
• Unit 2 Reactor Building Stack	Tower 2: 33'	Tower 2: 150 – 33'
• Unit 3 Reactor Building Stack	Tower 2: 33'	Tower 2: 150 – 33'

3.2.4.1 Off-Gas Stack

The Meteorological Tower 2 upper level (320 ft) wind and 316 – 33 ft delta temperature data monitoring levels, as described in Section 2.2.3, are clearly appropriate representative locations from which to derive all required meteorological input for the PAVAN modeling of the Off-Gas Stack release X/Q for each subject receptor.

3.2.4.2 Reactor Building Stacks

LPZ

The vast majority of the region bounded by the LPZ distance of 7300 meters in all directions from the Station is removed from the local influences of the immediate river valley setting of the Station. Thus, Tower 1A, which is based at river level within the Valley and adjacent to the Station, is not appropriate for measuring the conditions that occur at the LPZ and most intervening distances. The top of the Reactor Building stacks at 305 ft msl is at an elevation vertically nearer to the Tower 2 grade elevation (367 ft msl) than to the River (116 ft msl), and is within an airflow regime more typical of overall wind and stability conditions in the region bounded by the LPZ than the local station site conditions influenced by the River Valley. Therefore, the Tower 2 lower level (33 ft) winds and the 150 – 33 ft delta temperature-based stability class were used for all PAVAN model runs to predict the X/Q at the LPZ resulting from

Reactor Building stack releases. It should also be noted that the Tower 2 33 ft level wind speeds were used instead of the Tower 2 75 ft winds, even though it might be otherwise expected that the 75 ft level winds would better represent the 189 ft Reactor Building stack tops. This is because PAVAN requires that any non-elevated release be assumed as a 'ground level' release, which accordingly requires that whatever the release elevation may actually be, it is reassigned a value of 10 meters above station grade. Thus, using actual 10-meter monitored data (i.e., data from the 33 ft level on Tower 2) is considered to be superior to using data from another level (i.e., 75 feet) that PAVAN would subsequently adjust (but imprecisely so, by power law extrapolation) down to 10 meters.

EAB

The choice of the appropriate meteorological database to best represent the dispersion of releases from the Reactor Building stacks out to the EAB distance, however, is not as straightforward as for the LPZ. As apparent in Attachment A, this is due to the great variation in local topography within the EAB radius (823 m) of the Station, which influences the dispersion of a release from these stacks. The EAB distance extends well into the River in a number of directions from the Station. Thus, winds measured 45 ft above the river level on the River Tower, approximately 1200 meters north-northeast of the Station as shown in Attachment A, would clearly be the most representative. Stability class based on the delta temperature parameter, in accordance with NRC Regulatory guide 1.23, is not monitored on the River Tower; however, Tower 1A prior to its decommissioning in 1993, monitored 89 – 34 ft delta temperature. Tower 1A is ideally situated adjacent to and based at essentially the same grade elevation as the Station so as to best represent the local dispersion conditions to which the Reactor Building stack releases are subject for over-river trajectories out to the EAB.

In other directions from the Station, the region enclosed by the EAB distance is likely best represented by the lower level of Tower 2 meteorology (i.e., 33 ft winds, and 150 – 33 ft delta temperature-based stability class), using the same reasoning as used immediately above in this section for the LPZ.

Thus, the joint wind-stability occurrence frequency distributions derived from both of the joint wind-stability databases are individually executed in the PAVAN analysis of the Reactor Building stacks at the EAB. The higher resulting X/Q values are adopted.

3.3 Calculations

The X/Q values predicted by PAVAN for the Control Room Intake, as resulting from a release by the Off-Gas Stack, are presented below in Table 3-5 for each time interval required by NRC Regulatory Guide 1.145. The highlighted values are the maxima with respect to their indicated time periods. It is only the underlined subset of these values which are then incorporated with the ARCON96 results into the final determination of the Control Room Intake X/Q according to NRC DG-1111 prescribed methodology (see Section 3.0).

TABLE 3-5

PAVAN Maximum X/Q (sec/m³) Results**Off-Gas Stack to Control Room Intake**

Modeled Horizontal Distance from Stack to Receptor (m)												
Averaging Period	209 (Actual Distance)	280	300	500	750	1000	1500	2000	3000	4000	5000	6000
0-2 hr	2.72E-06	2.72E-06	2.72E-06	<u>2.72E-06</u>	2.31E-06	2.06E-06	1.95E-06	1.83E-06	1.77E-06	1.71E-06	1.70E-06	1.60E-06
0-8 hr	4.10E-07	8.86E-07	9.80E-07	1.23E-06	1.02E-06	8.87E-07	8.16E-07	7.96E-07	8.02E-07	8.02E-07	7.97E-07	7.49E-07
8-24 hr	1.59E-07	5.06E-07	5.88E-07	8.27E-07	6.79E-07	5.83E-07	5.29E-07	5.26E-07	5.46E-07	5.49E-07	5.45E-07	5.23E-07
1-4 day	2.03E-08	1.50E-07	1.94E-07	3.50E-07	2.80E-07	2.34E-07	2.07E-07	2.15E-07	2.50E-07	2.59E-07	2.58E-07	2.47E-07
4-30 day	1.06E-09	2.60E-08	3.95E-08	1.01E-07	7.83E-08	6.31E-08	5.35E-08	6.38E-08	8.36E-08	8.93E-08	8.86E-08	8.43E-08

Notes:

1. Maxima indicated in bold.
2. Underlined values incorporated into ARCON96 determination of Control Room Intake per NRC DG-1111.
3. Maximum hourly X/Q (which is assigned to represent the 0-2 hour period) is actually predicted to occur at 500 m; however, in accordance with PAVAN model methodology for elevated releases, this maximum value is conservatively also assigned to any lesser desired boundary distance.

The X/Q values for the EAB and LPZ distances predicted by the PAVAN modeling analysis of each release scenario are presented below in Table 3-6 for each time interval required by NRC Regulatory Guide 1.145. These include the X/Q for the EAB and LPZ distances predicted for an Off-Gas Stack release under 'fumigation' conditions for 0 - 0.5 hours.

TABLE 3-6

PAVAN X/Q (sec/m³) Results

Off-Gas Stack and Reactor Building Stacks to EAB and LPZ

RELEASE LOCATION	X/Q PARAMETER (sec/m ³)	0-0.5 hour	0-2 hour	0-8 hour	8-24 hour	1-4 day	4-30 day
EAB (823 m)							
Off Gas Stack	Direction-Specific Max	NA	5.50E-06 (N)	1.76E-06 (WSW)	1.06E-06 (WSW)	3.53E-07 (W)	8.86E-08 (W)
	Site Limit	NA	8.89E-06	3.14E-06	1.87E-06	6.03E-07	1.19E-07
	Max Fumigation	5.30E-05 (S, W, WNW, SSE)	N/A	N/A	N/A	N/A	N/A
Units 2 and 3 Reactor Building Stacks • Tower 2 33' wind; 150'-33' stability	Direction-Specific Max	NA	3.46E-04 (ENE)	1.79E-04 (ENE)	1.29E-04 (ENE)	6.33E-05 (ENE)	2.27E-05 (ENE)
	Site Limit	NA	2.45E-04	1.34E-04	9.95E-05	5.19E-05	2.04E-05
• River Tower wind; Tower 1A stability	Direction-Specific Max	NA	4.25E-04 (E)	2.26E-04 (SE)	1.66E-04 (SE)	8.45E-05 (SE)	3.22E-05 (SE)
	Site Limit	NA	4.05E-04	2.19E-04	1.61E-04	8.28E-05	3.18E-05
LPZ (7300 m)							
Off Gas Stack	Direction-Specific Max	NA	5.29E-06 (N)	2.56E-06 (N)	1.78E-06 (N)	8.08E-07 (N)	2.60E-07 (N)
	Site Limit	NA	8.87E-06	3.94E-06	2.62E-06	1.09E-06	3.06E-07
	Max Fumigation	1.75E-05 (SW, WSW, NW, N)	N/A	N/A	N/A	N/A	N/A
Units 2 and 3 Reactor Building Stacks	Direction-Specific Max	NA	4.81E-05 (ENE)	2.08E-05 (ENE)	1.37E-05 (ENE)	5.49E-06 (ENE)	1.49E-06 (ENE)
	Site Limit	NA	3.07E-05	1.43E-05	9.74E-06	4.25E-06	1.29E-06

* The higher of the direction specific and the site limit values are indicated in bold.

4.0 SUMMARY AND CONCLUSIONS

The ARCON96 and PAVAN X/Q modeling calculation results are summarized below for the Control Room, EAB and LPZ for the regulated time-averaging periods. Control Room intake results are calculated using the ARCON96 model, supplemented with PAVAN according to NRC DG-1111 methodology. The EAB and LPZ results have been calculated using the PAVAN model according to Regulatory Guide 1.145. All input and output files for ARCON96 and PAVAN are provided in Attachments I and J, respectively.

TABLE 4-1
X/Q RESULTS SUMMARY
(sec/m³)

RECEPTOR	RELEASE POINT	0 - 0.5 hour	0-2 hour	2-8 hour	8-24 hour	1-4 day	4-30 day
Control Room Intake	Off-Gas Stack		2.72E-06	1.00E-15	1.00E-15	1.46E-08	4.21E-09
	Unit 2 Reactor Building Stack		1.18E-03	9.08E-04	4.14E-04	2.90E-04	2.26E-04
	Unit 3 Reactor Building Stack		1.18E-03	8.91E-04	4.00E-04	2.51E-04	1.98E-04
EAB (823 m)	Off-Gas Stack	5.30E-05	8.89E-06	3.14E-06*	1.87E-06	6.03E-07	1.19E-07
	Units 2 and 3 Reactor Building Stack		4.25E-04	2.26E-04*	1.66E-04	8.45E-05	3.22E-05
LPZ (7,300 m)	Off-Gas Stack	1.75E-05	8.87E-06	3.94E-06*	2.62E-06	1.09E-06	3.06E-07
	Units 2 and 3 Reactor Building Stack		4.81E-05	2.08E-05*	1.37E-05	5.49E-06	1.49E-06

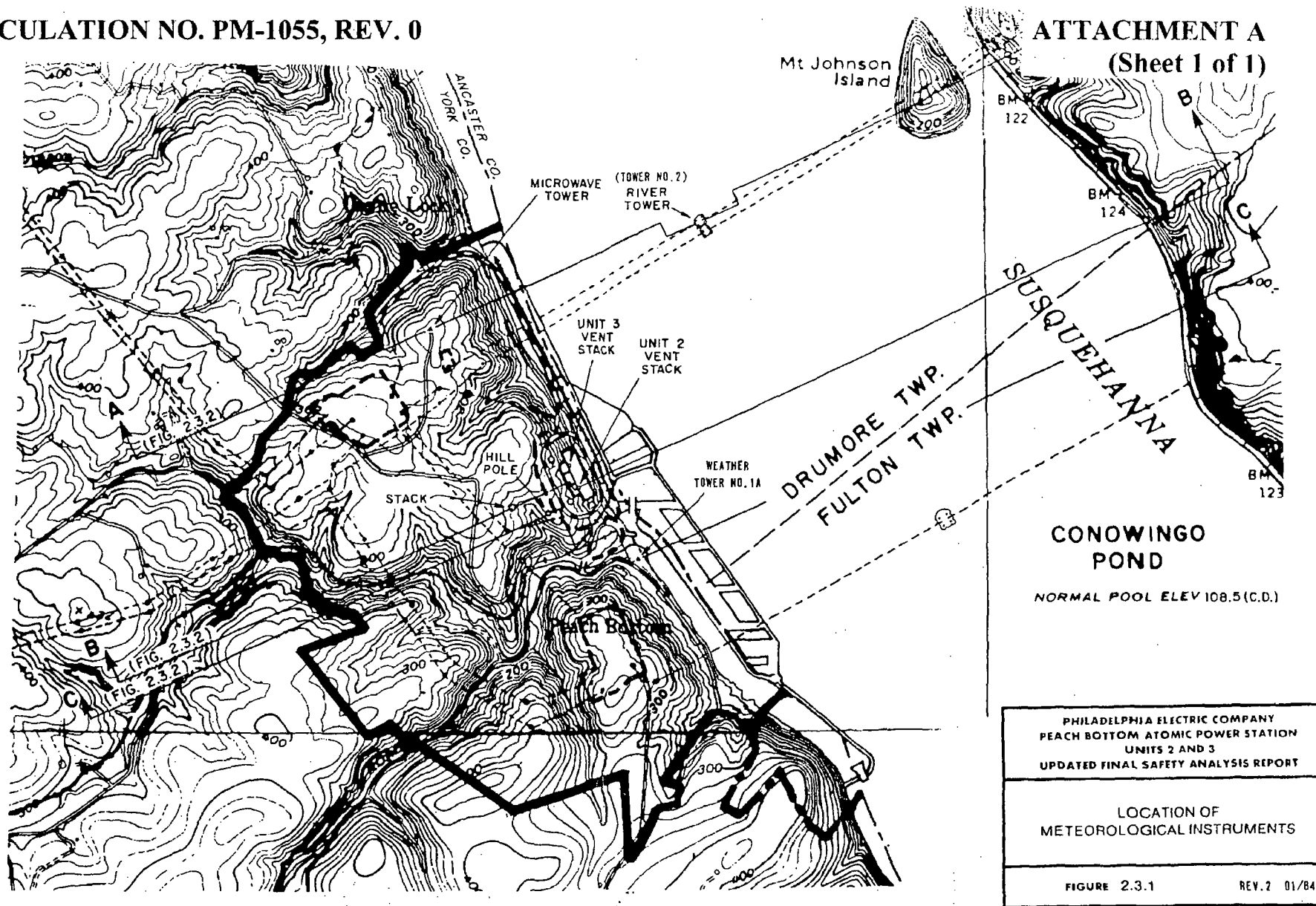
*PAVAN result representing 0-8 hour time period.

Attachments K and L provide WGI Computer Disclosure Sheets associated with the ARCON96 and PAVAN analyses, respectively.

5.0 REFERENCES

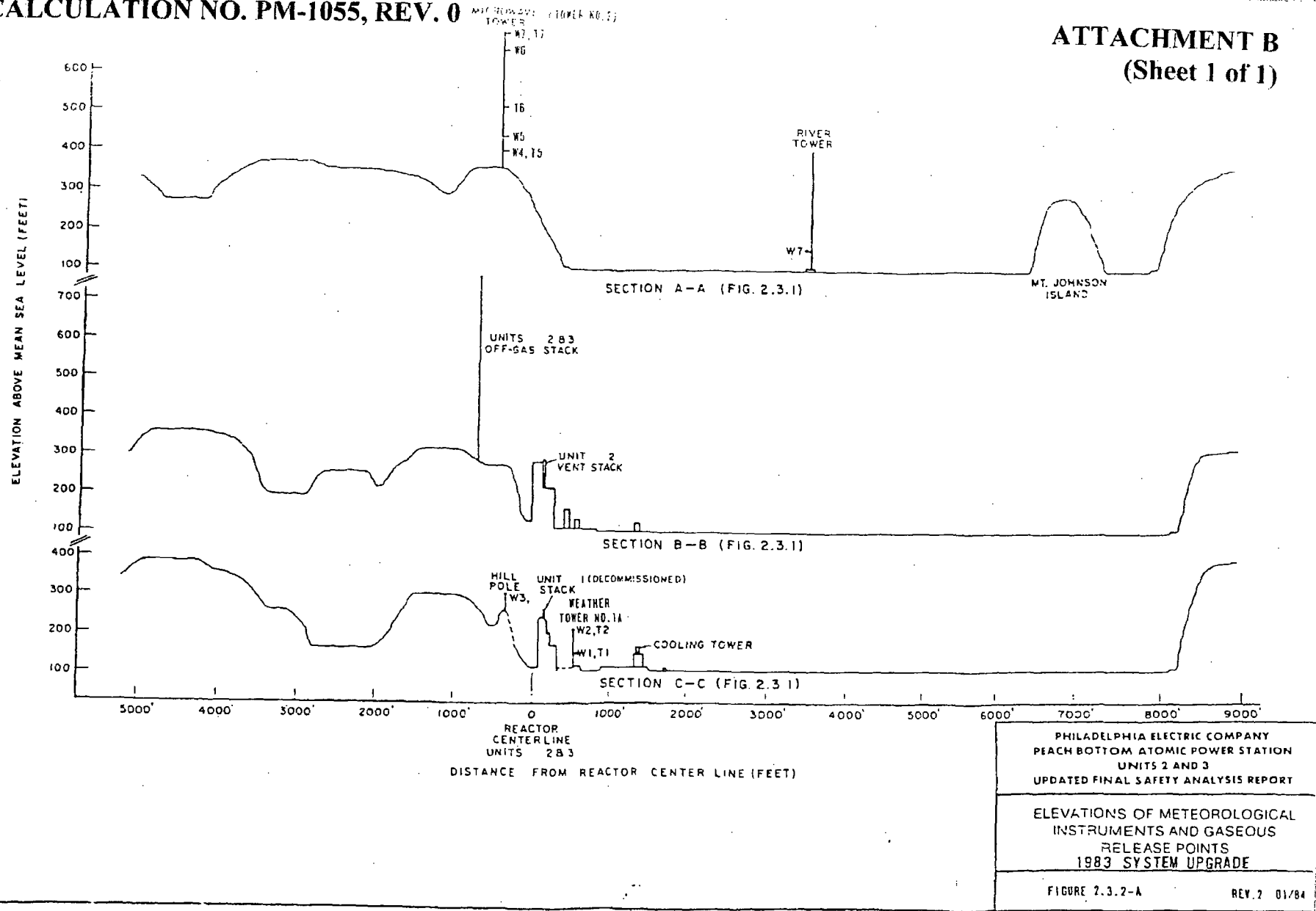
- 1) *Regulatory Guide 1.183, "Alternative Radiological Source Terms For Evaluating Design Basis Accidents At Nuclear Power Reactors"*; U.S. Nuclear Regulatory Commission; July 2000
- 2) *Atmospheric Relative Concentrations in Building Wakes*; NUREG/CR-6331, PNNL-10521, Rev. 1; prepared by J. V. Ramsdell, Jr., C. A. Simmons, Pacific Northwest National Laboratory; prepared for U.S. Nuclear Regulatory Commission; May 1997 (Errata, July 1997).
- 3) *Atmospheric Dispersion Code System for Evaluating Accidental Radioactivity Releases from Nuclear Power Stations*; PAVAN, Version 2; Oak Ridge National Laboratory; U.S. Nuclear Regulatory Commission; December 1997.
- 4) *Draft Regulatory Guide DG-1111; Atmospheric Relative Concentrations for Control Room Radiological Habitability Assessments at Nuclear Power Plants*; U.S. Nuclear Regulatory Commission; December 2001.
- 5) *Regulatory Guide 1.145; Atmospheric Dispersion Models for Potential Accident Consequence Assessments at Nuclear Power Plants (Revision 1)*; U.S. Nuclear Regulatory Commission; November 1982.
- 6) Peach Bottom 1967-2001 Meteorological Tower data; provided on behalf of Exelon by Pat Brennen of MES under cover letters "PBAPS Meteorological Data, 1967-2001", October 22, 2002 and "PBAPS Tower 1A Meteorological Data, 1983-1992", November 13, 2002.
- 7) Peach Bottom UFSAR, Figure 2.3.1, Rev. 18; *Location of Meteorological Instruments*.
- 8) Peach Bottom UFSAR, Figure 2.3.2-A, Rev. 18; *Elevations of Meteorological Instruments and Gaseous Release Points-1983 System Upgrade*.
- 9) *Regulatory Guide 1.23 (Safety Guide 23), Onsite Meteorological Programs*; U. S. Nuclear Regulatory Commission; USNRC Office of Standards Development; Washington, D.C.; 1972.
- 10) *XOQDOQ: Computer Program for the Meteorological Evaluation of Routine Releases at Nuclear Power Stations*; NUREG/CR-2919; J. F. Sagendorf, J. T. Goll, and W. F. Sandusky, U.S. Nuclear Regulatory Commission; Washington, D.C.; 1982.
- 11) *Atmospheric Dispersion Estimates in the Vicinity of Buildings*; J. V. Ramsdell and C. J. Fosmire, Pacific Northwest Laboratory; 1995.
- 12) Peach Bottom Atomic Power Station Drawing No. M-18, Rev. 11; Equipment Location-Reactor and Radwaste Building Unit No. 2, Plan at 234'.
- 13) Peach Bottom Atomic Power Station Drawing No.M-19, Rev. 9; Equipment Location-Reactor and Radwaste Building Unit No.2, Sec. C-C.
- 14) *Technical Basis for Regulatory Guide 1.145, Atmospheric Dispersion Models for Potential Accident Consequence Assessments at Nuclear Power Plants*; NUREG/CR-2260; W. G. Snell and R. W. Jubach, U.S. Nuclear Regulatory Commission, Washington, D.C; 1981.
- 15) Peach Bottom UFSAR, Section 2.3, Rev. 18.
- 16) Peach Bottom Atomic Power Station Drawing No.M-7, Rev. 13; Sections A-A, B-B, & C-C.

CALCULATION NO. PM-1055, REV. 0

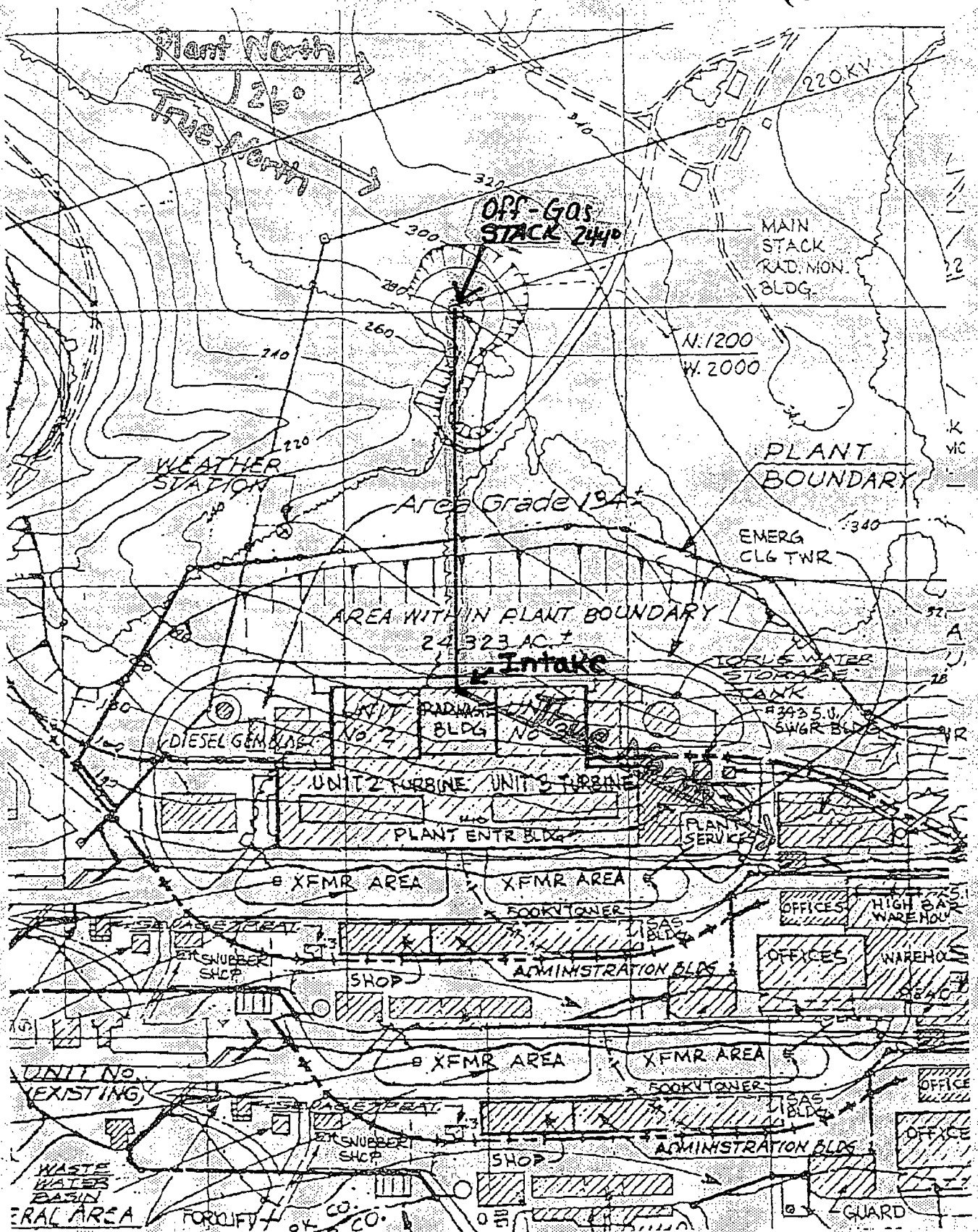


CALCULATION NO. PM-1055, REV. 0

ATTACHMENT B
(Sheet 1 of 1)

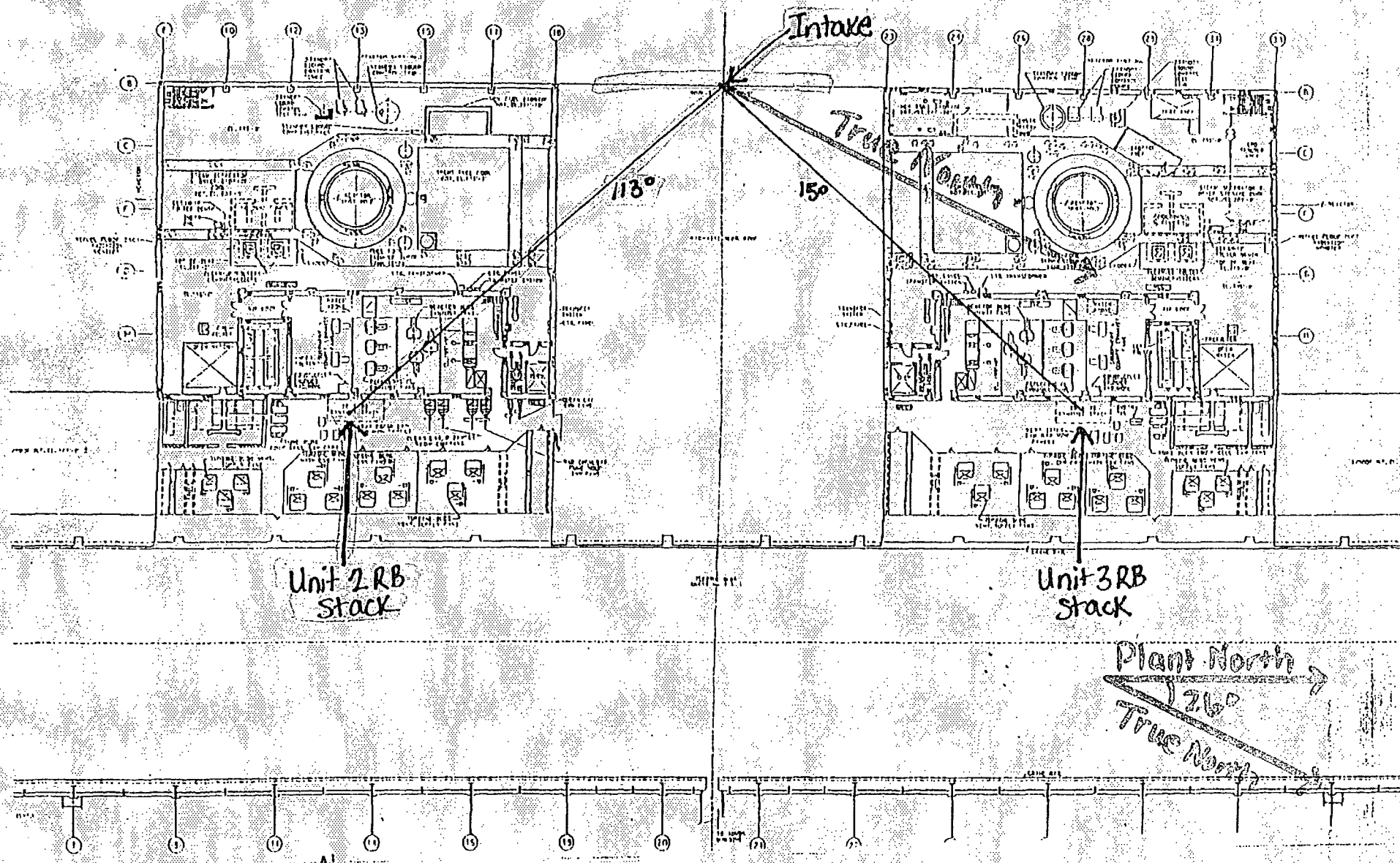


CALCULATION NO. PM-1055, REV. 0 ATTACHMENT C
(Sheet 1 of 1)



CALCULATION NO. PM-1055, REV. 0

ATTACHMENT D (Sheet 1 of 1)



PB 1984-1988 T2a 320'

January 1

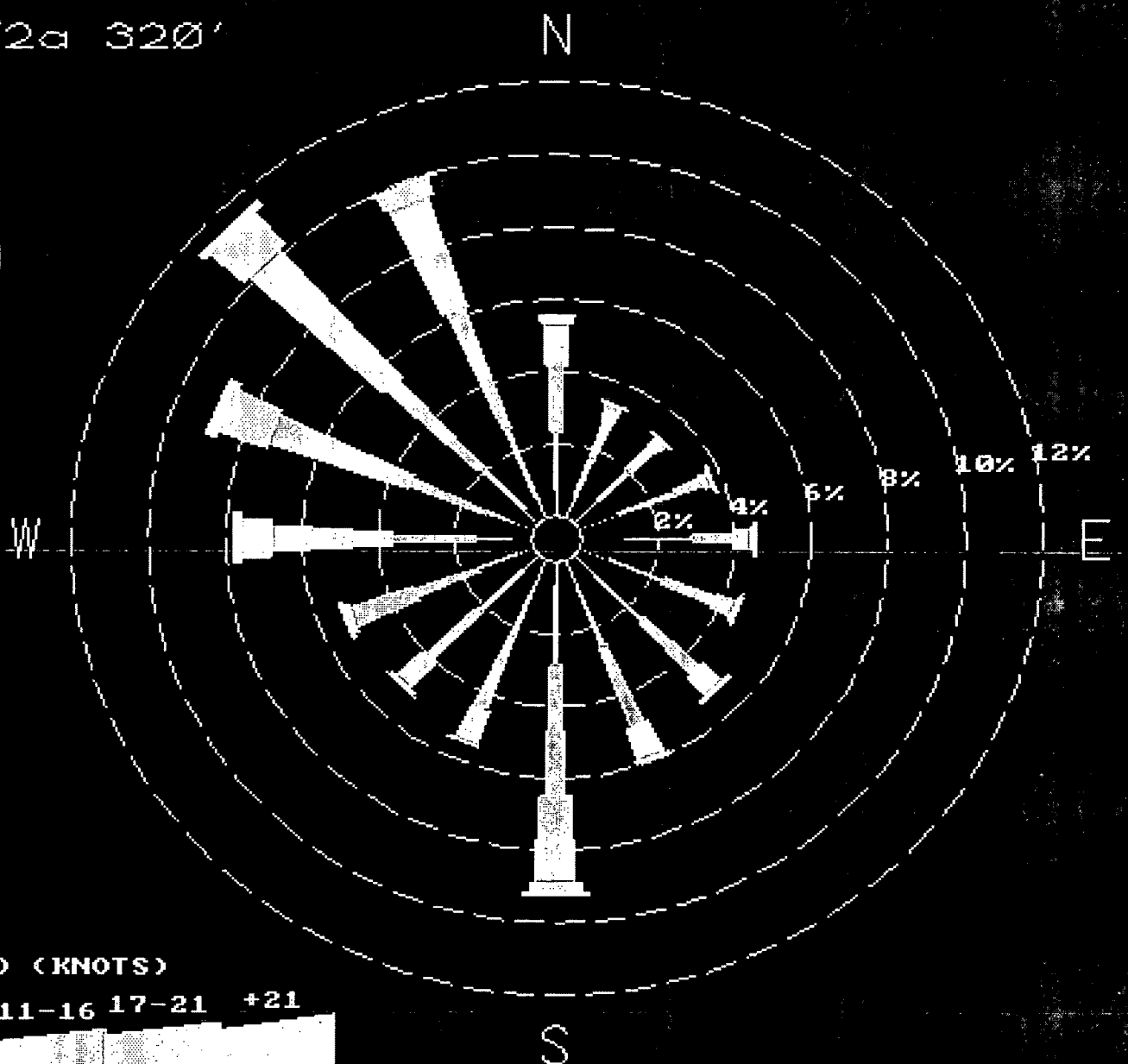
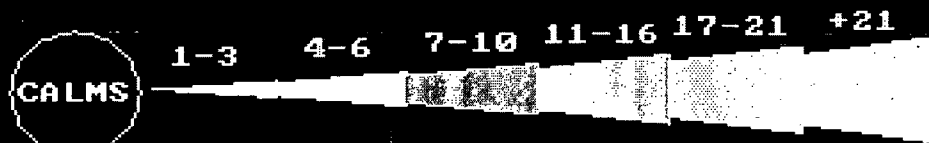
December 31

Midnight-11 PM

NOTE: Frequencies
indicate direction
from which the
wind is blowing.

CALM WINDS 0.26%

WIND SPEED (KNOTS)



PB 1984-1988 T2a 75'

January 1

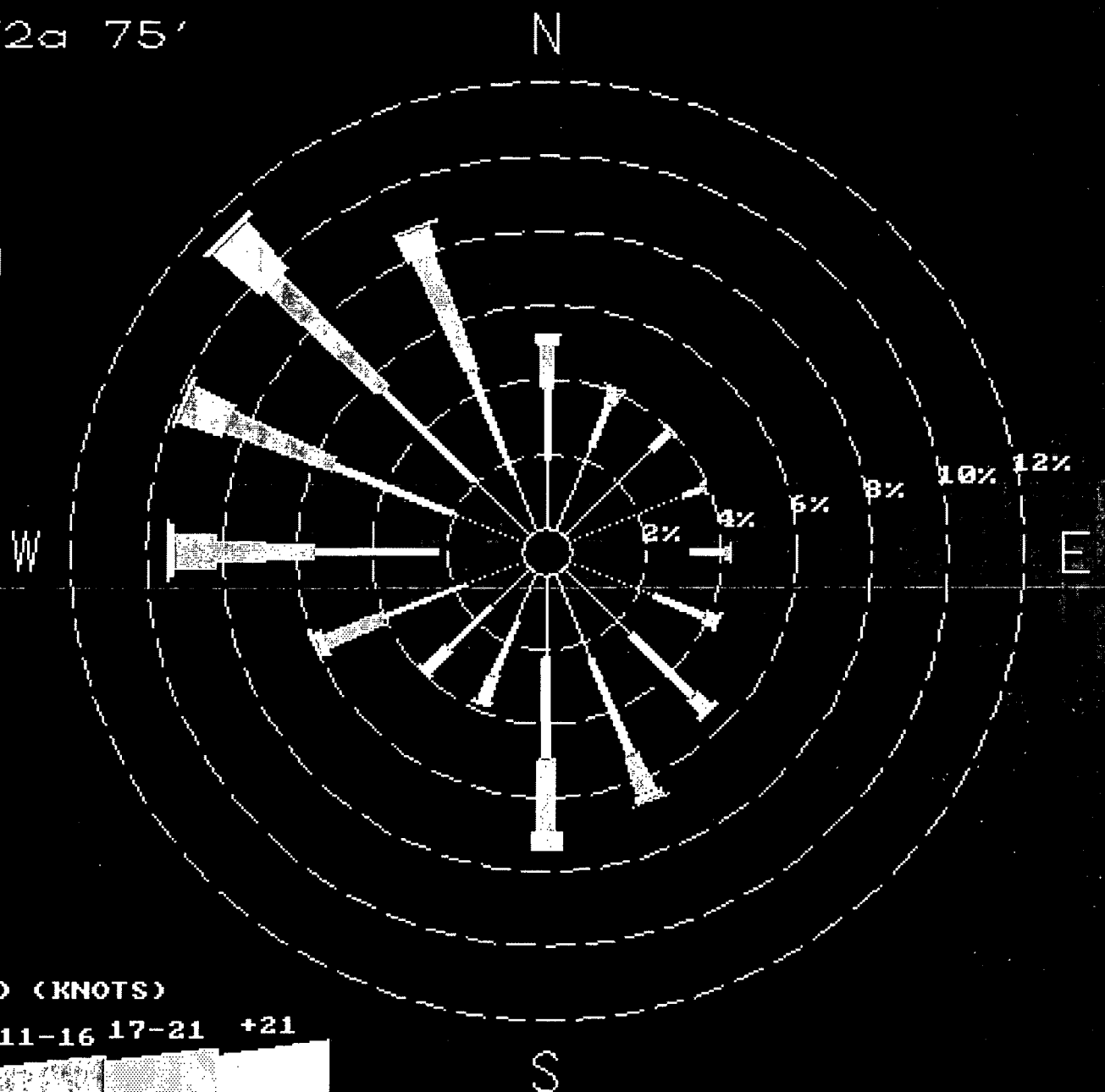
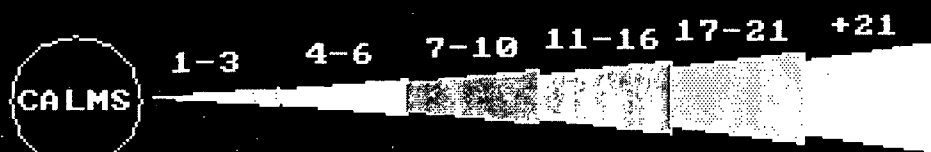
December 31

Midnight-11 PM

NOTE: Frequencies
indicate direction
from which the
wind is blowing.

CALM WINDS 1.18%

WIND SPEED (KNOTS)



PB 1984-1988 T1A 92'

January 1

December 31

Midnight-11 PM

NOTE: Frequencies
indicate direction
from which the
wind is blowing.

CALM WINDS 2.86%

WIND SPEED (KNOTS)

CALMS

1-3

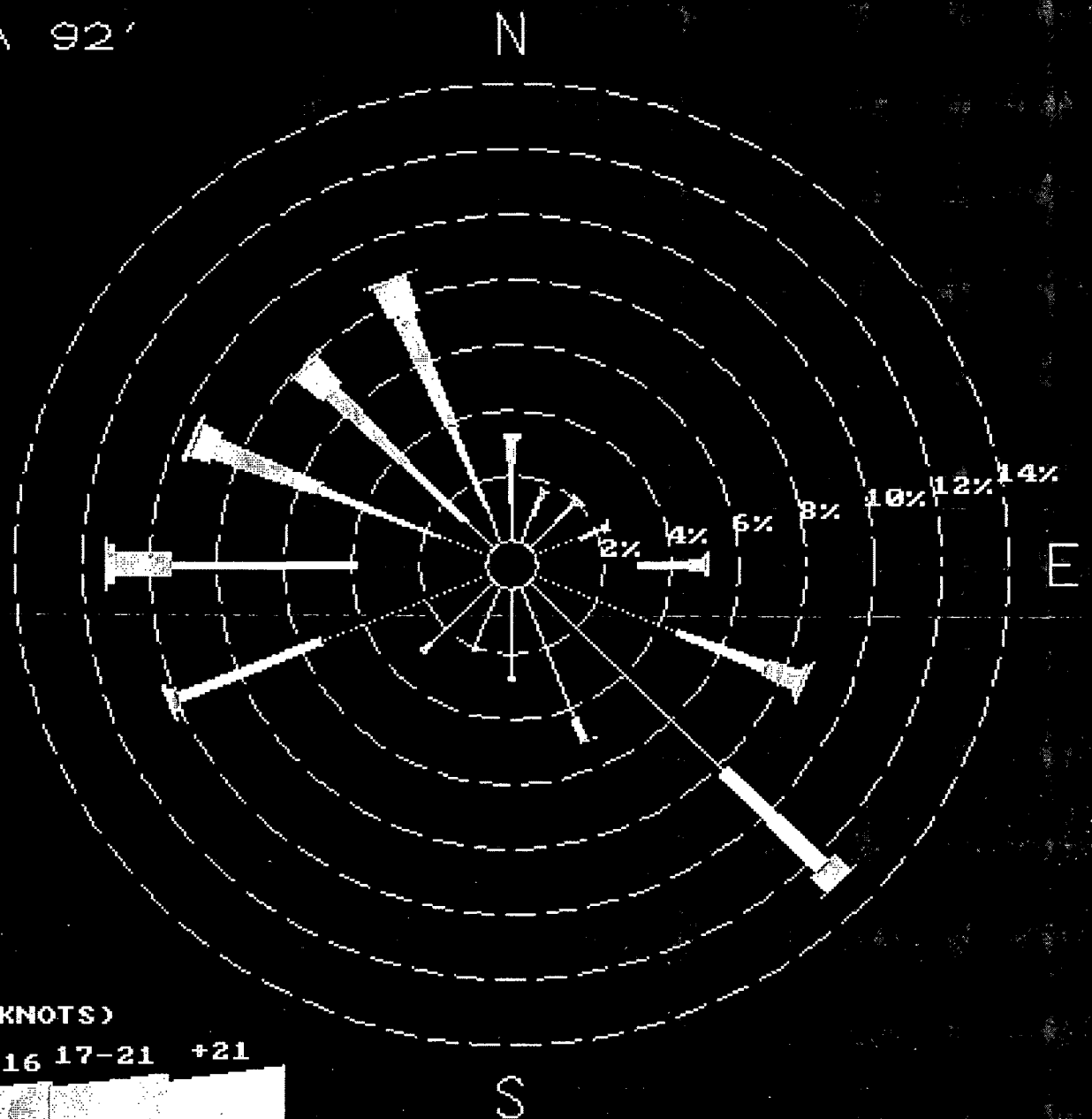
4-6

7-10

11-16

17-21

+21



PB 1984-1988 T2b 33'

January 1

December 31

Midnight - 11 PM

NOTE: Frequencies indicate direction from which the wind is blowing.

CALM WINDS 3.96%

WIND SPEED (KNOTS)



1-3

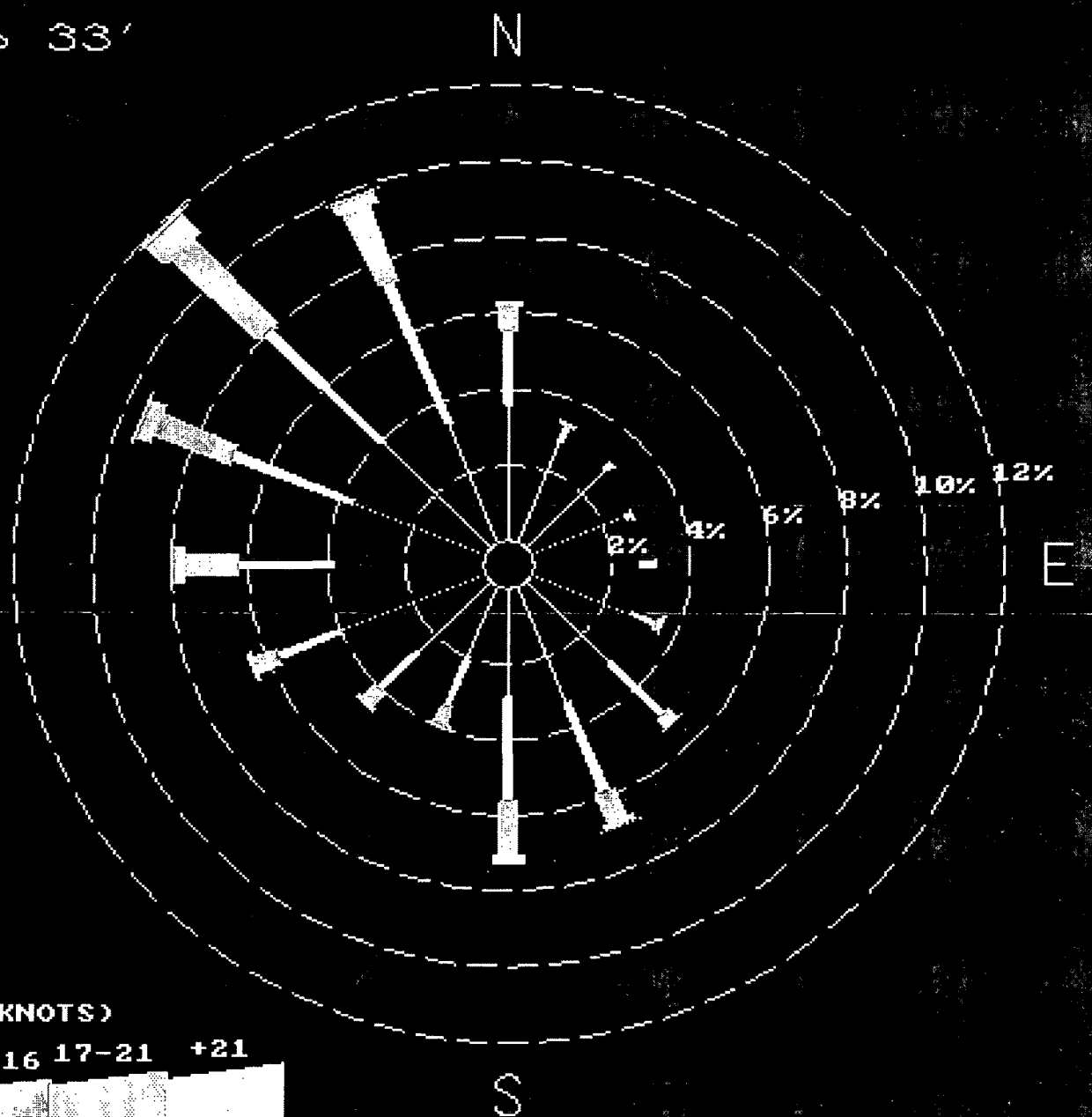
4-6

7-10

11-16

17-21

+21



PB 1984-1988 T1A/RT 45'

January 1

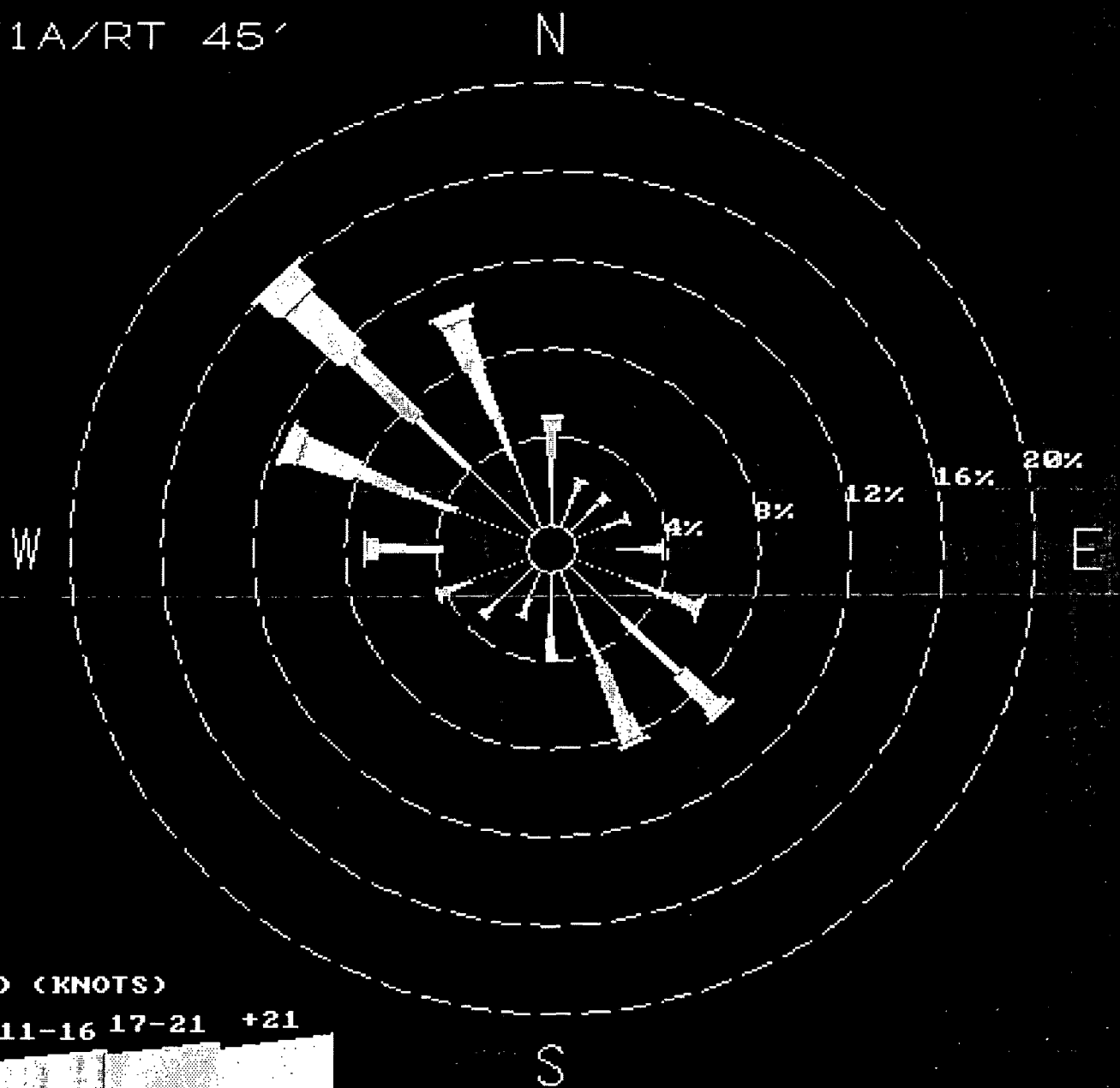
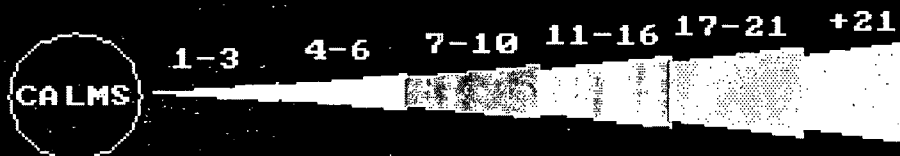
December 31

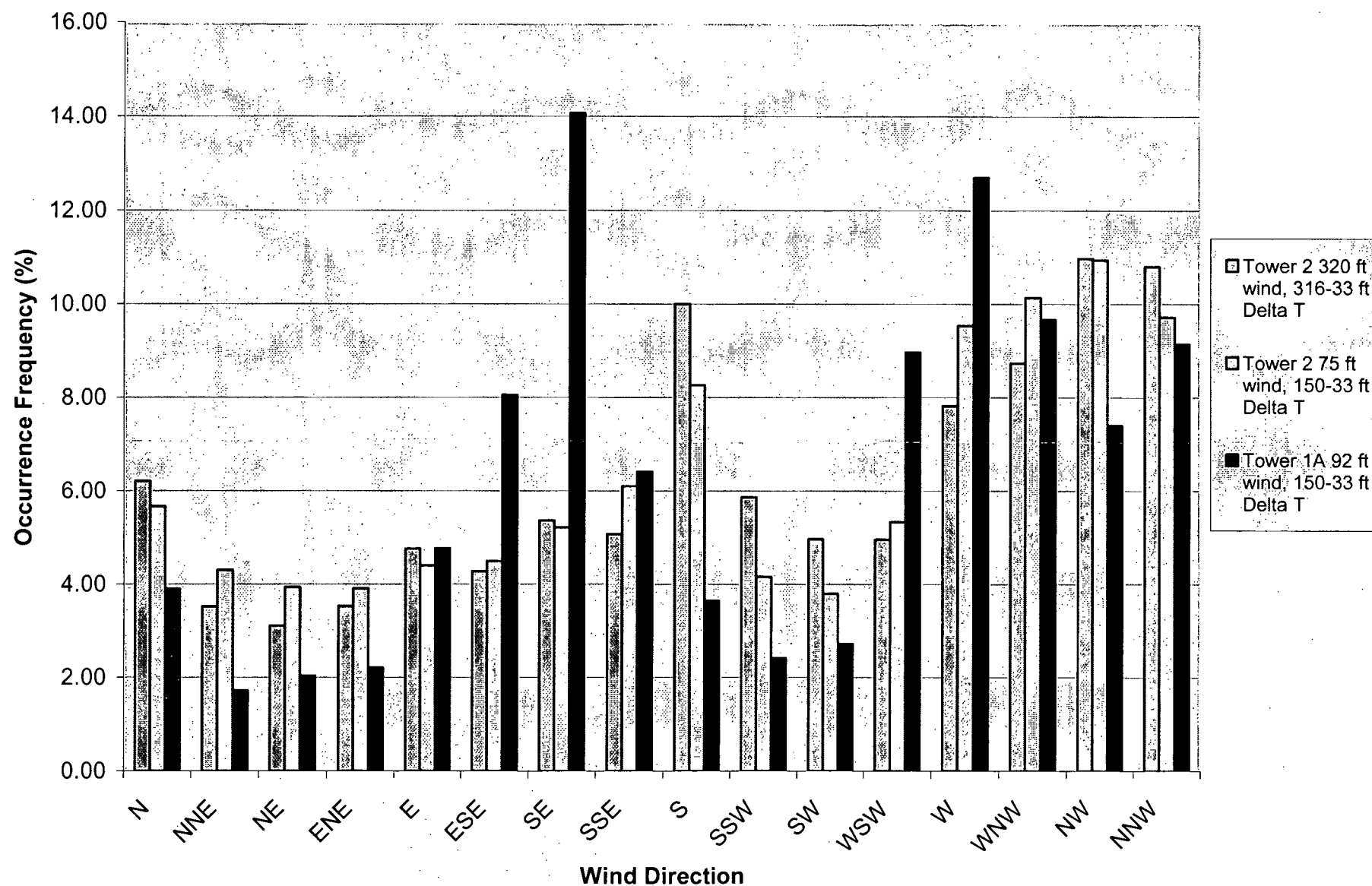
Midnight-11 PM

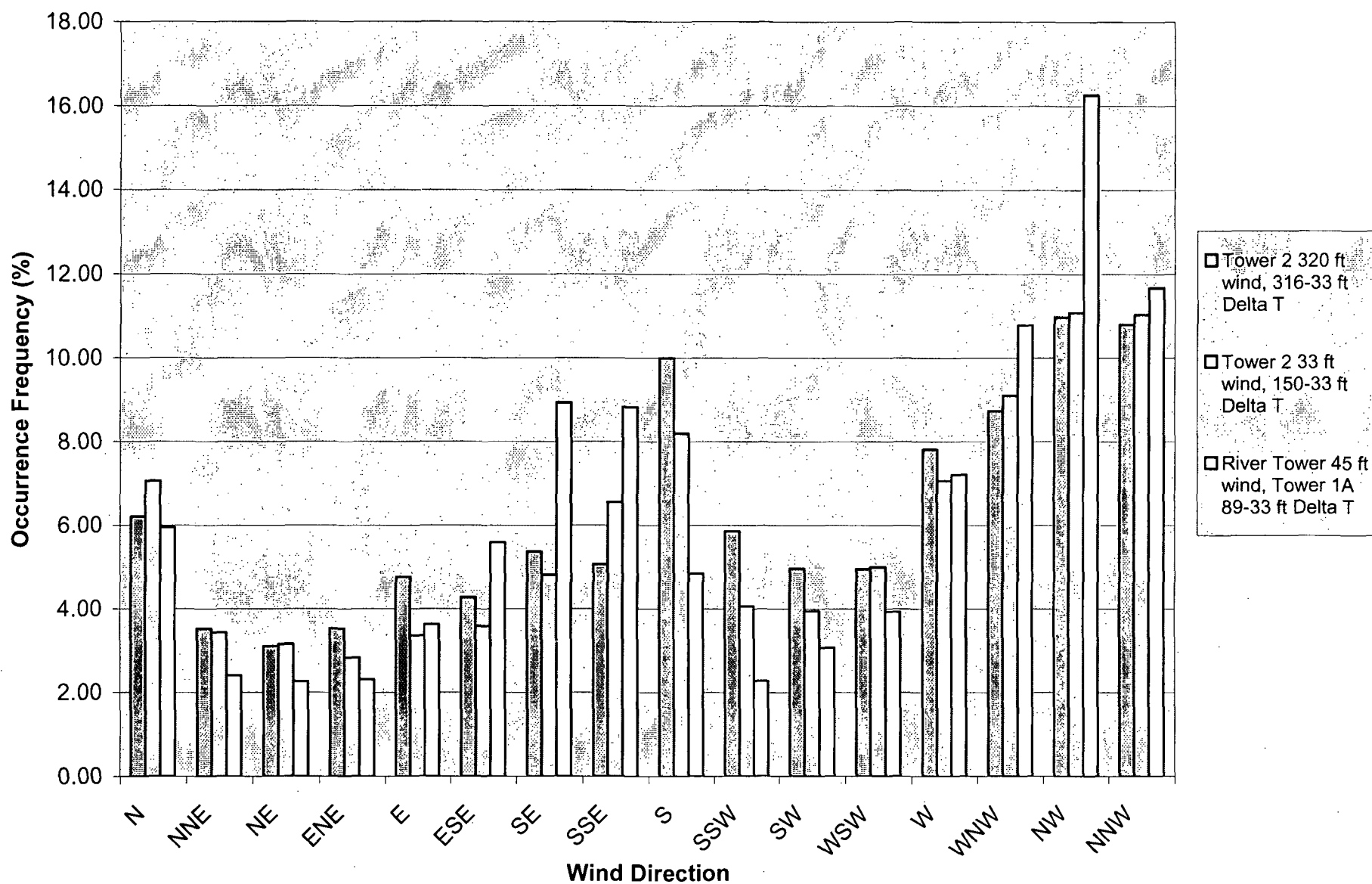
NOTE: Frequencies
indicate direction
from which the
wind is blowing.

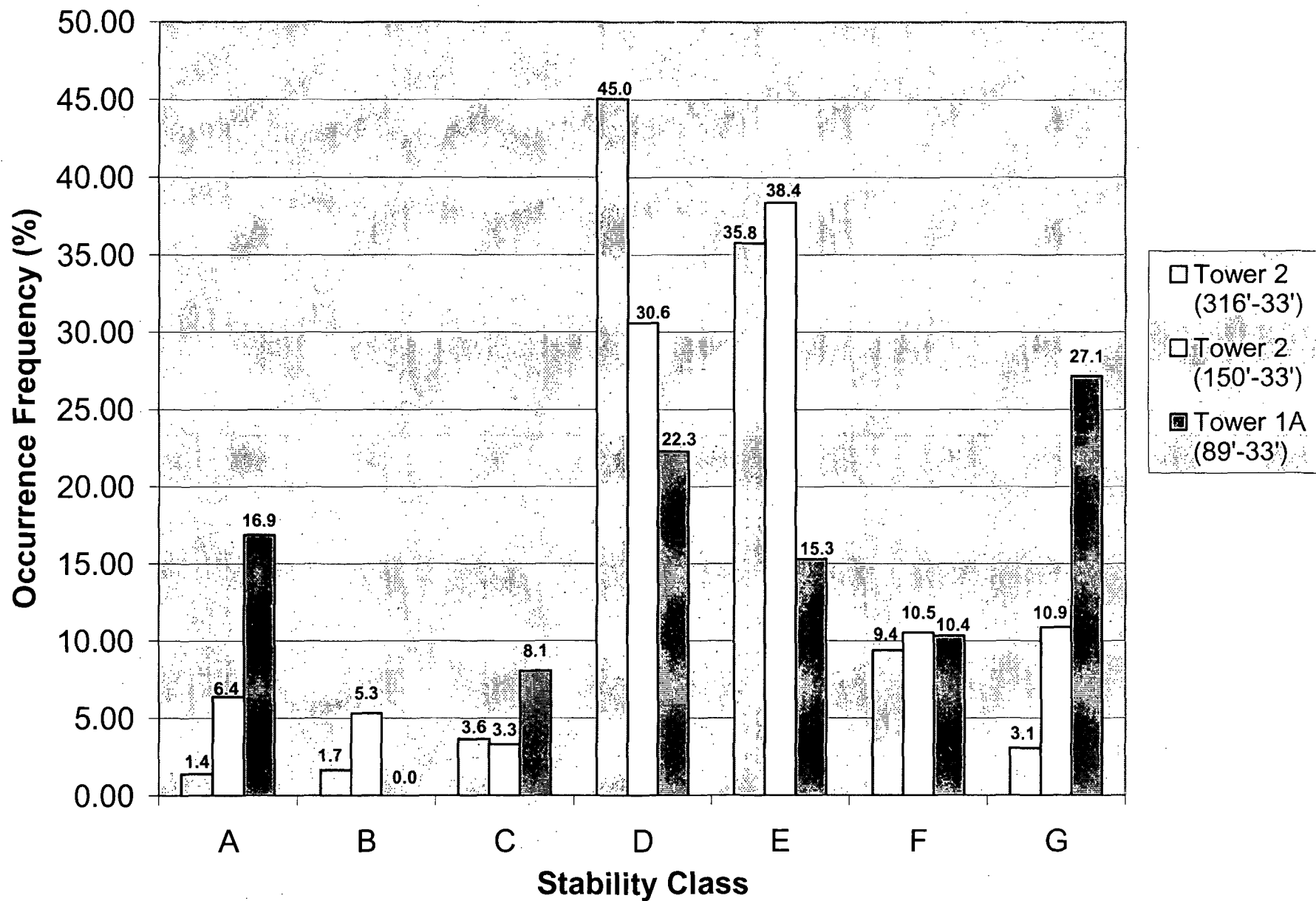
CALM WINDS 1.12%

WIND SPEED (KNOTS)



1984-1988 Wind Direction Occurrence Frequency

1984-1988 Wind Direction Occurrence Frequency

1984-1988 Stability Class Occurrence Frequency

Peach Bottom

Joint Frequency Distribution

1984-1988

Tower 2

320' wind

316°-33° Delta T

		Wind Direction Category																		
	Wind Speed Category ⁽¹⁾	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Calm	Total	
1 (A)	1 (Calm)																		0.000	0
	2	0	0	0	0	0.006998		0	0	0	0	0	0	0	0	0	0	0	0.006998	0
	3	0.013995148	0.020993	0.053648	0.090968	0.20293	0.102631	0.00933	0.004665	0	0.004665	0	0.004665	0	0.002333	0	0	0.002333	0.513155	0
	4	0	0.020993	0.04665	0.067643	0.107296	0.102631	0.04665	0.004665	0.02799	0.016328	0.011663	0.016328	0.01866	0.020993	0.004665	0.01866	0.004665	0.531816	0
	5	0.004665049	0.00933	0.020993	0.041985	0.016328	0.006998	0.030323		0	0.016328	0.006998	0.004665	0.006998	0.048983	0.020993	0.006998	0.034988	0.27757	0
	6	0.004665049	0.004665	0	0.002333	0	0.002333	0	0	0	0	0	0	0.004665	0.032655	0.004665	0	0.002333	0.058313	0
	7	0	0	0	0	0	0.002333	0	0	0	0	0	0	0.004665	0.004665	0.011663	0.002333	0.002333	0.02799	0
	Subtotal	0.023325247	0.055981	0.121291	0.20293	0.333551	0.216925	0.086303	0.00933	0.044318	0.02799	0.020993	0.032655	0.107296	0.058313	0.013995	0.060646	0	1.415843	0
2 (B)	1 (Calm)																		0.000	0
	2	0	0.004665	0.004665	0.020993	0.011663	0	0.004665	0	0	0	0	0	0	0	0	0	0	0.004665	0
	3	0.030322821	0.053648	0.041985	0.058313	0.130621	0.067643	0.023325	0.006998	0.006998	0.00933	0.006998	0.002333	0.00933	0.006998	0.00933	0.006998	0.00933	0.47117	0
	4	0.009330099	0.034988	0.030323	0.034988	0.02799	0.058313	0.02978	0.01866	0.058313	0.032655	0.030323	0.01866	0.048983	0.020993	0.004665	0.051316	0.004665	0.543478	0
	5	0.023325247	0.006998	0.004665	0.002333	0.002333	0.004665	0.01866	0.01866	0.072308	0.020993	0.013995	0.044318	0.062978	0.04665	0.020993	0.076973	0.004665	0.440847	0
	6	0.002332525	0.004665	0.002333	0	0	0.002333	0.002333	0.002333	0.011663	0.004665	0.002333	0.004665	0.02799	0.032655	0.00933	0.011663	0.004665	0.121291	0
	7	0	0	0	0	0	0	0	0	0.002333	0	0	0.002333	0.013995	0.016328	0	0.004665	0.034988	0.02799	0
	Subtotal	0.065310692	0.104964	0.083971	0.116626	0.172607	0.132954	0.111961	0.04665	0.151614	0.067643	0.053648	0.072308	0.163277	0.123624	0.044318	0.146949	0	1.658425	0
3 (C)	1 (Calm)																		0.000	0
	2	0	0.011663	0.02799	0.034988	0.002333	0	0	0	0	0	0	0	0	0	0	0	0	0.011663	0
	3	0.072308266	0.051316	0.065311	0.086303	0.116626	0.151614	0.032655	0.02799	0.044318	0.011663	0.016328	0.006998	0.011663	0.011663	0.006998	0.051316	0.006998	0.765068	0
	4	0.097986038	0.044318	0.020993	0.039653	0.032655	0.060646	0.144617	0.051316	0.167942	0.086303	0.069976	0.060646	0.07966	0.060646	0.060646	0.233252	0.060646	1.329539	0
	5	0.041985445	0.01866	0.00933	0.006998	0.006998	0.00933	0.025658	0.023325	0.156279	0.055981	0.048983	0.072308	0.130621	0.137619	0.081638	0.216925	0.081638	1.042639	0
	6	0.009330099	0.002333	0	0	0.002333	0.004665	0	0	0.002333	0.020993	0	0.00933	0.00933	0.067643	0.069976	0.065311	0.039653	0.303228	0
	7	0.002332525	0.00933	0	0	0	0	0	0	0.002333	0	0.002333	0.002333	0.002333	0.030323	0.062978	0.013995	0	0.125956	0
	Subtotal	0.223922374	0.137619	0.123624	0.167942	0.160944	0.226255	0.20293	0.104964	0.391864	0.153947	0.146949	0.151614	0.338216	0.342881	0.228587	0.541146	0.005	0.004665	0
4 (D)	1 (Calm)																		0.005	0
	2	0.137618959	0.135286	0.251913	0.27757	0.26824	0.200597	0.104964	0.081638	0.095634	0.053648	0.074641	0.034988	0.060646	0.088636	0.083971	0.116626	0.083971	2.066617	0
	3	0.769733159	0.492163	0.555141	0.783728	1.014648	0.709088	0.790726	0.566804	0.699757	0.445512	0.361541	0.298563	0.328886	0.226255	0.450177	0.898022	0.898022	9.390745	0
	4	1.215245382	0.814051	0.585464	0.648442	0.772066	0.718418	1.114947	0.086957	1.651428	0.991323	0.669435	0.492163	0.70209	0.828046	1.264228	2.164583	1.164583	15.71888	0
	5	0.923679791	0.359209	0.198265	0.156279	0.307893	0.326553	0.375536	0.275238	1.124277	0.387199	0.293898	0.44318	0.921347	1.572122	2.423493	2.141258	1.22943	12.22943	0
	6	0.170274305	0.062978	0.030323	0.025658	0.074641	0.060646	0.032655	0.025658	0.23092	0.03732	0.03732	0.051316	0.524818	1.044971	1.266561	0.564471	0.564471	4.24053	0
	7	0.034987871	0.016328	0.02799	0.004665	0.01866	0.004665	0.016328	0.016328	0.067643	0.020993	0.006998	0.013995	0.209927	0.352211	0.429185	0.146949	0.146949	1.387852	0
	Subtotal	3.251539466	1.880015	1.649095	1.896343	2.456149	2.019966	2.435156	2.052622	3.869659	1.935996	1.443833	1.334204	2.747714	4.112241	5.917615	6.031909	0.004665	45.03872	0
5 (E)	1 (Calm)																		0.015	0
	2	0.139951483	0.102631	0.083971	0.142284	0.139951	0.139951	0.142284	0.137619	0.163277	0.130621	0.137619	0.125956	0.125956	0.083971	0.090968	0.079306	0.079306	1.966318	0
	3	0.54814331	0.382534	0.349879	0.510823	0.660104	0.466505	0.804721	0.725415	1.014648	0.746408	0.655439	0.436182	0.403527	0.321888	0.396529	0.473503	0.473503	8.896249	0
	4	0.856036574	0.468837	0.363874	0.235585	0.375536	0.599459	0.814051	1.033308	2.07828	1.345867	0.825714	0.69276	0.921347	0.825714	1.21058	1.198918	1.198918	13.84587	0
	5	0.363873857	0.088636	0.060646	0.025658	0.135286	0.146949	0.228587	0.384867	1.203583	0.531816	0.503825	0.632114	1.250233	1.359862	1.518474	1.091622	1.091622	9.526031	0
	6	0.053648069	0.01866	0.01866	0.00933	0.02799	0.048983	0.03732	0.025658	0.149282	0.044318	0.041985	0.069976	0.181937	0.25891	0.207595	0.100299	0.100299	1.294551	0
	7	0.016327673	0.002333	0.002333	0.002333	0.04665	0.00933	0.02799	0.004665	0.013995	0.00933	0.004665	0.002333	0.020993	0.02799	0.013995	0.023325	0.023325	0.228587	0
	Subtotal	1.977980967	1.063631	0.879362	0.926012	1.38552	1.411177	2.054954	2.311532	4.623064	2.80836	2.169248	1.959321	2.903993	2.878336	3.438141	2.966971	0.013995	35.7716	0
6 (F)	1 (Calm)																		0.012	0
	2	0.060645643	0.044318	0.051316	0.060646	0.072308	0.053648	0.065311	0.074641	0.053648	0.074641	0.074641	0.076973	0.069976	0.065311	0.060646	0.051316	0.051316	1.009983	0
	3	0.230919948	0.088636	0.079306	0.067643	0.079306	0.121291	0.188935	0.209927	0.312558	0.328886	0.363874	0.272905	0.198265	0.153947	0.219257	0.226255	0.226255	3.141911	0
	4	0.188934503	0.058313	0.030323	0.01866	0.030323	0.055981	0.111961	0.184269	0.303228	0.25891	0.366206	0.412857	0.46184	0.326553	0.415189	0.293898	0.293898	3.517447	0
	5	0.009330099	0.002333	0.002333	0	0	0.004665	0.016328	0.01866	0.102631	0.053648	0.090968	0.254245	0.391864	0.321888	0.209927	0.074641	0.074641	1.553461	0
	6	0.002332525	0	0	0	0	0	0	0	0	0	0	0.041985	0.055981	0.041985	0	0.011663	0.160944	0	
	7	0	0	0	0	0	0.00933	0.002333	0	0	0	0	0	0	0	0	0	0.011663	0	
	Subtotal	0.492162717	0.1936	0.163277	0.146949	0.191267	0.237918	0.382534	0.487498	0.772066	0.723083	0.895689	1.058966	1.177925	0.909685	0.90502	0.657772	0.011663	9.407072	0
7 (G)	1 (Calm)																		0.000	0
	2	0.025657772	0.032655	0.025658	0.023325	0.030323	0.011663	0.00933	0.020993	0.039653	0.020993	0.013995	0.041985	0.030323	0.032655	0.030323	0.044318	0.044318	0.43385	0
	3	0.109628662	0.044318	0.051316	0.044318	0.030323	0.013995	0.065311	0.023325	0.079306	0.072308	0.083971	0.079306	0.093301	0.081638	0.163277	0.137619	0.137619	1.17326	0
	4	0.037320396	0.011663	0.00933	0.004665	0.004665	0.0046658													

Category	Wind Speed (mph)
1 (Calm)	< 0.5
2	>= 0.5 to < 3.5
3	>= 3.5 to < 7.5
4	>= 7.5 to < 12.5
5	>= 12.5 to < 18.5
6	>= 18.5 to < 24
7	>= 24

Peach Bottom
Joint Frequency Distribution
1984-1988
Tower 1A
92° wind
89°-33' Delta T

		Wind Direction Category																	Calm	Total
		Wind Speed Category ⁽¹⁾	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW		
1 (A)	1 (Calm)																	0.00462	0.00462	
	2	0.13629	0.18018	0.26334	0.39732	0.794641	0.524371	0.18018	0.0462	0.02079	0	0.01386	0.01848	0.02541	0.00462	0.01617	0.04158		2.663433	
	3	0.743821	0.30492	0.26796	0.32109	0.732271	1.476091	1.841072	0.40656	0.0693	0.02772	0.03234	0.1155	0.18711	0.08316	0.13398	0.614461		7.357357	
	4	0.510511	0.07392	0.04389	0.06006	0.11088	0.510511	0.46662	0.00924	0	0	0	0	0.27489	0.34419	0.512821	2.261492		5.179025	
	5	0.1155	0.00693	0.00924	0.00693	0	0.04158	0.00924	0	0	0	0	0	0.03927	0.13629	0.31185	0.910141		1.586972	
	6	0.01386	0	0.00231	0	0	0.00231	0	0	0	0	0	0	0	0	0	0.05082		0.0693	
	7	0	0	0	0	0	0.00231	0	0	0	0	0	0	0	0	0	0.01155		0.01386	
	Subtotal	1.519982	0.565951	0.586741	0.785401	1.837792	2.557173	2.497112	0.462	0.09009	0.02772	0.0462	0.13398	0.526681	0.568261	0.974821	3.890044	0.00462	16.87457	
2 (B)	1 (Calm)																	0.0000	0	
	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	
	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	
	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	
	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	
	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	
	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	
	Subtotal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
3 (C)	1 (Calm)																	0.0000	0	
	2	0.05313	0.07392	0.07854	0.10857	0.22407	0.23331	0.11781	0.04851	0.01155	0.00924	0.00693	0.01617	0.01848	0.00924	0.00924	0.02541		1.044121	
	3	0.27258	0.12936	0.12012	0.15939	0.31647	0.540541	0.683761	0.15015	0.0231	0.01386	0.03234	0.12474	0.24486	0.13398	0.1386	0.35805		3.441903	
	4	0.16632	0.01386	0.07161	0.0231	0.09009	0.21252	0.16401	0.00231	0	0	0	0.00231	0.29106	0.47586	0.48741	0.766921		2.767383	
	5	0.03234	0	0.00231	0.00693	0	0.03234	0.01848	0	0	0	0	0.03234	0.19635	0.17325	0.27258		0.766921		
	6	0	0	0	0	0	0	0.00231	0	0	0	0	0	0	0.00462	0.00693	0.01848		0.03234	
	7	0	0	0	0	0	0	0	0	0	0	0	0	0.00231	0.00231	0		0.00462		
	Subtotal	0.524371	0.21714	0.27258	0.29799	0.630631	1.018711	0.986371	0.20997	0.03465	0.0231	0.03927	0.14322	0.589051	0.822361	0.815431	1.441441	0	8.057288	
4 (D)	1 (Calm)																	0.0023	0.00231	
	2	0.17094	0.10395	0.1386	0.1848	0.43659	0.626011	0.857011	0.30261	0.12705	0.08316	0.10395	0.15939	0.17556	0.0693	0.05082	0.07623		3.665974	
	3	0.43428	0.33033	0.37653	0.37884	0.704551	0.960961	1.954262	0.572881	0.0924	0.0462	0.06006	0.36036	1.120351	0.836221	0.787711	0.803881		9.81982	
	4	0.28182	0.06237	0.10395	0.05775	0.20328	0.39963	0.46431	0.01155	0	0.00231	0.00462	0.02772	0.887041	2.134442	1.748672	1.074151		7.463617	
	5	0.04158	0.00924	0.01155	0.00231	0.03465	0.06468	0.03234	0.00231	0	0	0	0	0.08547	0.38346	0.37653	0.21714		1.261261	
	6	0	0	0	0	0	0	0	0	0	0	0	0	0.01848	0.00693	0.00693	0.02079		0.05313	
	7	0	0.00231	0.00462	0	0.00231	0	0.00231	0	0	0	0	0.00231	0	0.00231	0	0.00231		0.01848	
	Subtotal	0.928621	0.508201	0.635251	0.623701	1.381381	2.051282	3.310233	0.889351	0.21945	0.13167	0.16863	0.549781	2.286902	3.432663	2.970663	2.194502	0.00231	22.28459	
5 (E)	1 (Calm)																	0.0208	0.02079	
	2	0.15477	0.08316	0.13167	0.0924	0.26103	0.764611	1.667822	0.616771	0.28182	0.20328	0.22869	0.32571	0.31416	0.12936	0.12243	0.13167		5.509356	
	3	0.21252	0.12474	0.17787	0.14553	0.231	0.28644	1.286671	0.48279	0.08316	0.03696	0.06006	0.44352	1.157311	1.145761	0.639871	0.35343		6.867637	
	4	0.18942	0.03465	0.03465	0.04851	0.12705	0.17325	0.14091	0.02772	0	0.00231	0	0.02079	0.18711	0.831601	0.48972	0.36729		2.674983	
	5	0.0231	0	0	0	0.03234	0.03234	0.01155	0	0	0	0	0	0.00924	0.03465	0.03465	0.02079		0.19866	
	6	0	0	0	0	0.00231	0.00693	0	0	0	0	0	0	0.00231	0.00462	0	0		0.01617	
	7	0	0	0	0	0	0	0	0	0.00462	0	0	0	0.00231	0	0	0		0.00693	
	Subtotal	0.579811	0.24255	0.34419	0.28644	0.653731	1.263571	3.106953	1.127281	0.3696	0.24255	0.28875	0.790021	1.672442	2.145992	1.286671	0.873181	0.02079	15.29453	
6 (F)	1 (Calm)																	0.0323	0.03234	
	2	0.09933	0.06237	0.06006	0.09009	0.18018	0.549781	1.480711	0.783091	0.39732	0.2772	0.31647	0.39039	0.40656	0.19866	0.16632	0.15246		5.610996	
	3	0.07161	0.01617	0.04851	0.03927	0.03696	0.08316	0.46431	0.2772	0.07392	0.02772	0.0693	0.688381	0.972511	0.709171	0.39732	0.1848		4.160314	
	4	0.01386	0.00231	0.00462	0.00462	0.03927	0.01386	0	0	0	0	0.00231	0.03234	0.11319	0.15246	0.07854	0.05775		0.515131	
	5	0	0	0	0	0.01155	0	0	0	0	0	0	0	0	0.00231	0.00231	0.00462		0.0231	
	6	0	0	0	0	0.00462	0	0	0	0	0	0	0	0	0	0	0		0.00462	
	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	
	Subtotal	0.1848	0.08085	0.11319	0.13398	0.27258	0.846801	1.945022	1.060291	0.47124	0.30492	0.38808	1.111111	1.494571	1.062601	0.644491	0.39963	0.03234	10.3465	
7 (G)	1 (Calm)																	0.1132	0.11319	
	2	0.1155	0.09933	0.08316	0.07392	0.18249	0.4851	1.970432	2.453222	2.353892	1.621622	1.607762	2.145992	1.707092	0.586741	0.32571	0.19866		16.01063	
	3	0.03696	0.00693	0.00231	0.00924	0.01155	0.02772	0.24255	0.21483	0.10857	0.06699	0.18249	3.883114	3.987064	0.907831	0.34881	0.11781		10.15477	
	4	0.01386	0	0	0	0	0.00231	0.01155	0	0	0	0	0	0.2079	0.43197	0.14091	0.03234		0.863941	
	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	
	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	
	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	
	Subtotal	0.16632	0.10626	0.08547	0.08316	0.19404	0.515131	2.224532	2.668053	2.462462	1.688612	1.790252	6.237006	6.126126	1.635482	0.706861	0.33957	0.11319	27.14253	
Total		3.903904	1.720952	2.037422	2.210672	4.770155	8.052668	14.07022	6.407946	3.847494	2.418572	2.721183	8.965119	12.69577	9.86736	7.398937	9.138369	0.17325	100	

Notes:

(1) Wind Speed Categories defined as follows:

Category	Wind Speed (mph)
1 (Calm)	<0.5
2	>=0.5 to <3.5
3	>=3.5 to <7.5
4	>=7.5 to <12.5
5	>=12.5 to <18.5
6	>=18.5 to <24
7	>=24

Peach Bottom
Joint Frequency Distribution
1984-1988
Tower 2
33' wind
150'-33' Delta T

		Wind Direction																Calm	Total
Wind Speed Category ⁽¹⁾		N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW		
1 (Calm)																		0	0
2		0.205732	0.313274	0.32964	0.334315	0.238463	0.184692	0.116893	0.074812	0.018703	0.007014	0.009351	0.016365	0.035068	0.037406	0.056109	0.093515		2.071352
3		0.392762	0.189367	0.072474	0.06546	0.102866	0.226773	0.254828	0.184692	0.165989	0.100528	0.126245	0.091177	0.217422	0.243138	0.180016	0.472249		3.085987
4		0.06546	0.002338	0.002338	0	0	0.018703	0.014027	0.067798	0.229111	0.072474	0.091177	0.06546	0.135596	0.084163	0.058447	0.210408		1.117501
5		0.002338	0	0	0	0	0	0	0.011689	0.030392	0.002338	0.007014	0.002338	0.009351	0.018703	0.007014	0.002338		0.093515
6		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
7		0	0.002338	0.002338	0	0.004676	0	0	0	0	0	0	0	0	0	0	0		0.009351
Subtotal		0.666293	0.507318	0.406789	0.399776	0.346005	0.430168	0.385748	0.338991	0.444195	0.182354	0.233787	0.17534	0.397438	0.38341	0.301585	0.77851	0	6.377706
1 (Calm)																		0	0
2		0.140272	0.130921	0.149624	0.156637	0.14261	0.102866	0.053771	0.030392	0.028054	0.004676	0.014027	0.014027	0.035068	0.028054	0.021041	0.088839		1.14088
3		0.336653	0.093515	0.025717	0.035068	0.028054	0.072474	0.130921	0.168327	0.212746	0.105204	0.149624	0.09819	0.149624	0.165989	0.158975	0.388086		2.319166
4		0.088839	0.004676	0	0	0.002338	0.014027	0.021041	0.079488	0.338991	0.107542	0.06546	0.056109	0.119231	0.165989	0.20807	0.392762		1.664563
5		0.004676	0	0	0	0	0	0	0.016365	0.051433	0.002338	0.007014	0	0.004676	0.037406	0.049095	0.021041		0.194043
6		0	0	0	0	0	0	0	0	0	0	0	0	0	0.002338	0	0		0.002338
7		0	0	0	0	0	0	0.002338	0	0	0	0	0	0	0	0	0		0.002338
Subtotal		0.57044	0.229111	0.17534	0.191705	0.173002	0.189367	0.20807	0.294571	0.631225	0.21976	0.236125	0.168327	0.308599	0.399776	0.437181	0.890728	0	5.323327
1 (Calm)																		0	0
2		0.074812	0.107542	0.060785	0.112218	0.081825	0.063122	0.025717	0.011689	0.014027	0	0.011689	0.009351	0.014027	0.016365	0.021041	0.07715		0.701361
3		0.135596	0.023379	0.007014	0.018703	0.021041	0.023379	0.07715	0.123907	0.154299	0.056109	0.056109	0.049095	0.09819	0.086501	0.107542	0.292234		1.330247
4		0.037406	0.002338	0	0	0.002338	0.002338	0.011689	0.039744	0.17534	0.072474	0.051433	0.051433	0.081825	0.123907	0.18703	0.292234		1.131528
5		0.002338	0	0	0	0	0.002338	0	0.007014	0.018703	0	0	0	0.007014	0.028054	0.046757	0.037406		0.149624
6		0	0	0	0	0	0	0	0.002338	0	0	0	0	0	0	0	0		0.002338
7		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
Subtotal		0.250152	0.133259	0.067798	0.130921	0.105204	0.091177	0.114556	0.184692	0.36237	0.128583	0.119231	0.10988	0.201057	0.254828	0.36237	0.699023	0	3.15098
1 (Calm)																		0.018703	0.018703
2		0.909431	0.7902	1.021649	0.743442	0.692009	0.409127	0.360032	0.535372	0.413803	0.215084	0.182354	0.245476	0.28522	0.299247	0.448871	0.556413		8.107729
3		1.334923	0.374059	0.154299	0.081825	0.151961	0.338991	0.890728	1.384018	1.271801	0.544723	0.439519	0.409127	0.694347	1.009959	1.730023	2.155515		12.96582
4		0.514331	0.018703	0	0	0.004676	0.018703	0.180016	0.35068	0.759807	0.25249	0.182354	0.173002	0.500304	1.344275	2.155515	1.851592		8.306448
5		0.053771	0	0	0	0	0	0.004676	0.028054	0.105204	0.023379	0.011689	0.009351	0.100528	0.133259	0.3951	0.308599		1.17361
6		0	0	0	0	0	0	0	0	0.004676	0	0	0	0	0.002338	0	0		0.007014
7		0.004676	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.007014		0.011689
Subtotal		2.817132	1.182962	1.175948	0.825268	0.848646	0.766821	1.435451	2.298125	2.550615	1.040352	0.815916	0.836957	1.580399	2.789077	4.729509	4.879132	0.018703	30.59101
1 (Calm)																		0.126245	0.126245
2		1.208678	0.972553	0.970216	0.895404	1.204002	1.098798	1.269463	1.402721	1.482209	0.876701	0.759807	0.923458	1.047365	1.164259	1.423762	0.99827		17.69767
3		1.047365	0.215084	0.177678	0.173002	0.247814	0.413803	0.923458	1.582737	1.802497	0.914107	0.757469	1.014635	1.561696	2.34722	2.2163	1.779118		17.17398
4		0.170664	0.009351	0.002338	0	0.014027	0.039744	0.121569	0.165989	0.472249	0.126245	0.107542	0.119231	0.287558	0.451209	0.600832	0.49329		3.181839
5		0.009351	0	0	0	0	0	0.002338	0.014027	0.058447	0.009351	0	0	0.014027	0.018703	0.021041	0.023379		0.170664
6		0	0	0	0	0	0	0	0	0.002338	0	0	0	0	0	0	0.002338		0.004676
7		0.002338	0	0	0	0	0	0	0	0	0	0	0	0	0	0.014027	0		0.016365
Subtotal		2.438397	1.196989	1.150231	1.068406	1.465844	1.552345	2.316828	3.165474	3.81774	1.926404	1.624819	2.057325	2.910647	3.981391	4.261935	3.310422	0.126245	38.37144
1 (Calm)																		0.060785	0.060785
2		0.303923	0.189367	0.173002	0.215084	0.420816	0.523683	0.301585	0.231449	0.282882	0.458222	0.687333	1.054379	1.168934	0.972553	0.773835	0.378735		8.135783
3		0.016365	0	0.011689	0.004676	0.007014	0.03273	0.056109	0.042082	0.114556	0.107542	0.226773	0.589143	0.497966	0.31795	0.212746	0.088839		2.326179
4		0	0	0	0	0	0	0	0	0	0	0.002338	0.007014	0	0.002338	0.002338	0.004676		0.018703
5		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
6		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
7		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
Subtotal		0.320288	0.189367	0.184692	0.21976	0.42783	0.556413	0.357694	0.273531	0.397438	0.565764	0.916445	1.650535	1.6669	1.292841	0.988919	0.472249	0.060785	10.54145
1 (Calm)																		0	0
2		0.081825	0.070136	0.067798	0.114556	0.205732	0.128583	0.074812	0.063122	0.053771	0.07715	0.388086	1.150231	0.993594	0.547061	0.278206	0.135596		4.430261
3		0.002338	0.009351	0	0	0.007014	0.011689	0.004676	0	0	0.016365	0.137934	0.593819	0.165989	0.037406	0.016365	0.007014		1.009959
4		0	0	0	0	0	0	0	0	0	0	0	0.002338	0	0	0	0.002338		0.004676
5		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
6		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
7		0.084163	0.079488	0.067798	0.114556	0.212746	0.140272	0.079488	0.063122	0.053771	0.093515	0.52602	1.746388	1.159583	0.584467	0.294571	0.144948		5.444896
Subtotal		0.168327	0.158975	0.135596	0.229111	0.425492	0.280544	0.158975	0.126245	0.107542	0.18703	1.052041	3.452776	2.319166	1.168934	0.589143	0.289896	0	10.88979
Total		7.062702	3.439005	3.160799	2.835835	3.366531	3.566291	4.818348	6.565384	8.203582	4.063216	3.946323	4.998383	7.06504	9.101323	11.0815	11.03006	0.205732	94.52004

Category	Wind Speed (mph)
1 (Calm)	<0.5
2	>=0.5 to <3.5
3	>=3.5 to <7.5
4	>=7.5 to <12.5
5	>=12.5 to <18.5
6	>=18.5 to <24
7	>=24

Peach Bottom
Joint Frequency Distribution
1984-1988
Tower 1A/River Tower
45' River Tower Wind
89'-33' Tower 1A Delta T

Wind Speed Category ⁽¹⁾	Wind Direction Category																	Calm	Total
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW			
1 (A)	1 (Calm)																0	0	
	2	0.209295	0.197403	0.192646	0.209295	0.290158	0.313942	0.292537	0.118917	0.137944	0.073729	0.068972	0.078485	0.087999	0.099891	0.076107	0.168863	2.616182	
	3	0.371022	0.242591	0.192646	0.242591	0.468534	0.744423	1.003663	0.390049	0.164106	0.080864	0.040432	0.030919	0.066594	0.080864	0.387671	0.387671	4.894639	
	4	0.530371	0.104647	0.085621	0.085621	0.156971	0.206916	0.684964	0.692099	0.373401	0.083242	0.076107	0.073729	0.126052	0.166484	0.827665	0.994149	5.26804	
	5	0.294915	0.04281	0.011892	0.009513	0.002378	0.023783	0.047567	0.390049	0.154593	0.023783	0.002378	0.004757	0.073729	0.225943	0.832422	1.101175	3.241688	
	6	0.068972	0	0.002378	0	0	0.004757	0	0.02854	0	0.002378	0	0	0.059459	0.349617	0.275888	0.79199		
	7	0.002378	0.007135	0.002378	0	0.002378	0	0.002378	0	0	0	0	0	0.011892	0.095134	0.040432	0.164106		
	Subtotal	1.476954	0.594587	0.487561	0.54702	0.92042	1.293821	2.031109	1.619655	0.830043	0.263997	0.187889	0.187889	0.354374	0.644532	2.566615	2.968178	0 16 97664	
2 (B)	1 (Calm)																0	0	
	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Subtotal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
3 (C)	1 (Calm)																0.002378	0.002378	
	2	0.083242	0.078485	0.078485	0.068972	0.085621	0.104647	0.114161	0.045189	0.030919	0.009513	0.011892	0.023783	0.023783	0.030919	0.05708	0.073729	0.92042	
	3	0.161728	0.087999	0.099891	0.164106	0.268753	0.28778	0.325834	0.133187	0.064215	0.04281	0.038054	0.035675	0.054702	0.05708	0.214051	0.185511	2.221377	
	4	0.237835	0.080864	0.083242	0.023783	0.109404	0.192646	0.24497	0.225943	0.142701	0.040432	0.099891	0.076107	0.145079	0.225943	0.354374	0.325834	2.609047	
	5	0.135566	0.009513	0.011892	0.002378	0.002378	0.035675	0.047567	0.123674	0.02854	0.007135	0.011892	0.009513	0.059459	0.318699	0.516101	0.399562	1.719545	
	6	0.007135	0	0.002378	0	0	0.004757	0.002378	0.019027	0	0.002378	0	0.002378	0.002378	0.140323	0.197403	0.126052	0.506586	
	7	0	0	0.002378	0	0	0	0	0.002378	0	0	0	0	0	0.01427	0.073729	0.038054	0.130809	
	Subtotal	0.625505	0.256862	0.278267	0.25924	0.466156	0.625505	0.734909	0.549398	0.266375	0.102269	0.161728	0.147458	0.285402	0.787233	1.412738	1.148742	0.002378 8.110165	
4 (D)	1 (Calm)																0.002378	0.002378	
	2	0.218808	0.147458	0.166484	0.192646	0.218808	0.221186	0.24497	0.114161	0.080864	0.040432	0.059459	0.066594	0.076107	0.095134	0.145079	0.166484	2.254673	
	3	0.406697	0.242591	0.375779	0.390049	0.516101	0.635019	0.856205	0.390049	0.27351	0.149838	0.166484	0.197403	0.240213	0.294915	0.520858	0.406697	6.062408	
	4	0.494696	0.204538	0.123674	0.114161	0.290158	0.494696	0.703991	0.872854	0.354374	0.135566	0.171241	0.20216	0.459021	0.853827	1.163012	0.884964	7.327689	
	5	0.180754	0.052324	0.016648	0.007135	0.052324	0.107026	0.104647	0.382914	0.090377	0.033297	0.033297	0.026162	0.211673	1.334253	1.32474	0.756315	4.713885	
	6	0.021405	0.004757	0	0	0.004757	0.009513	0.016648	0.087999	0.002378	0	0	0	0.01427	0.292537	0.642154	0.27351	1.369928	
	7	0.004757	0.002378	0	0	0	0	0.002378	0	0	0	0	0	0.002378	0.040432	0.159349	0.07135	0.283023	
	Subtotal	1.327118	0.654046	0.682586	0.703991	1.082148	1.472197	1.92884	1.847976	0.801503	0.35913	0.430481	0.492318	1.003663	2.911097	3.955192	2.359321	0.002378 22.01398	
5 (E)	1 (Calm)																0.009513	0.009513	
	2	0.249726	0.142701	0.107026	0.133187	0.152214	0.25924	0.368644	0.187889	0.087999	0.107026	0.145079	0.116539	0.154593	0.147458	0.195024	0.382914	2.937259	
	3	0.363887	0.140323	0.164106	0.221186	0.223565	0.423346	0.813395	0.516101	0.363887	0.121296	0.21643	0.221186	0.323455	0.35913	0.599344	0.35913	5.429767	
	4	0.390049	0.095134	0.07135	0.054702	0.099891	0.283023	0.468534	0.789611	0.233078	0.05708	0.07135	0.049945	0.173619	0.727774	0.908529	0.428103	4.901774	
	5	0.104647	0.016648	0	0.004757	0.059459	0.054702	0.047567	0.24497	0.040432	0.002378	0.002378	0.002378	0.016648	0.313942	0.516101	0.254483	1.681492	
	6	0.004757	0	0	0	0.011892	0	0.002378	0.052324	0.01427	0	0	0	0.030919	0.104647	0.045189	0.266375		
	7	0.004757	0.002378	0	0	0	0.004757	0.002378	0	0	0	0	0	0.01427	0.007135	0.002378	0.038054		
	Subtotal	1.117823	0.397184	0.342482	0.413832	0.54702	1.025068	1.702897	1.790896	0.739666	0.28778	0.435238	0.390049	0.668316	1.593493	2.330781	1.472197	0.009513 15.26123	
6 (F)	1 (Calm)																0.009513	0.009513	
	2	0.21643	0.123674	0.114161	0.099891	0.142701	0.228321	0.397184	0.283023	0.235456	0.121296	0.178376	0.209295	0.28778	0.235456	0.411454	0.418589	3.703087	
	3	0.214051	0.066594	0.085621	0.045189	0.099891	0.235456	0.542263	0.58983	0.304428	0.104647	0.126052	0.195024	0.304428	0.404319	0.51848	0.351995	4.18827	
	4	0.083242	0.011892	0.019027	0.019027	0.011892	0.07135	0.159349	0.435238	0.156971	0.033297	0.009513	0.026162	0.049945	0.368644	0.542263	0.221186	2.218998	
	5	0.002378	0	0	0.002378	0.02854	0	0	0.04281	0.011892	0	0	0.002378	0.030919	0.05708	0.047567	0.225943		
	6	0	0	0	0	0.004757	0	0	0	0	0	0	0.002378	0	0.002378	0.004757	0.01427		
	7	0	0	0	0	0	0.002378	0	0	0	0	0	0	0.007135	0	0.004757	0	0.01427	
	Subtotal	0.516101	0.20216	0.218808	0.166484	0.28778	0.537507	1.098797	1.350901	0.708748	0.25924	0.313942	0.430481	0.654046	1.039338	1.536413	1.044095	0.009513 10.37435	
7 (G)	1 (Calm)																0.009513	0.009513	
	2	0.459021	0.180754	0.149836	0.192646	0.211673	0.313942	0.637397	0.746801	0.84907	0.649289	1.055986	1.412738	2.195215	1.9003	2.17381	1.403225	14.5317	
	3	0.33059	0.111782	0.087999	0.030919	0.114161	0.268753	0.744423	0.746801	0.556533	0.335347	0.482805	0.839557	1.88408	1.42463	1.74095	1.089283	10.78294	
	4	0.097512	0.007135	0.01427	0	0	0.059459	0.052324	0.147458	0.076107	0.016648	0.007135	0.016648	0.142701	0.447129	0.508966	0.168863	1.762356	
	5	0	0.002378	0	0	0	0	0.021405	0.011892	0	0	0.002378	0	0.011892	0.026162	0.016648	0.092756		
	6	0	0	0	0	0	0	0.002378	0.004757	0	0	0	0	0	0	0	0.007135		
	7	0	0	0	0	0	0	0.002378	0	0	0.002378	0.009513	0.019027	0.021405	0.007135	0.002378	0.064215		
	Subtotal	0.887124	0.30205	0.252105	0.223565	0.325834	0.642154	1.434144	1.667222	1.498359	1.001284	1.548304	2.280835	4.24535	3.805358	4.457023	2.680398	0.009513 27.26062	
Total		5.950626	2.406888	2.261808	2.314132	3.629358	5.956252	8.930695	8.826048	4.844694	2.2737	3.077582	3.92903	7.21115	10.78105	16.26076	11.67293	0.033297 100	

Notes:

(1) Wind Speed Categories defined as follows:

Category	Wind Speed (mph)
1 (Calm)	<0.5
2	>=0.5 to <3.5
3	>=3.5 to <7.5
4	>=7.5 to <12.5
5	>=12.5 to <18.5
6	>=18.5 to <24
7	>=24

ARCON96 Input**Off –Gas Stack to Control Room Intake (Tower 2 320’and 75’ wind, Tower 2 316’-33’ Delta T)**

5

D:\TRACIP~1\ARCON\PEACHB~1\T2A84A~1.MET

D:\TRACIP~1\ARCON\PEACHB~1\T2A85A~1.MET

D:\TRACIP~1\ARCON\PEACHB~1\T2A86A~1.MET

D:\TRACIP~1\ARCON\PEACHB~1\T2A87A~1.MET

D:\TRACIP~1\ARCON\PEACHB~1\T2A88A~1.MET

22.90

97.50

2

3

152.40

2583.60

0.00

0.00

0.00

244 90

208.80

21.00

49.90

OGStoCR.log

OGStoCR.cfd

.1

0.22

4.00

1 2 4 8 12 24 96 168 360 720

1 2 4 8 11 22 87 152 324 648

0.00 0.00

n

ARCON96 Output

Off –Gas Stack to Control Room Intake (Tower 2 320'and 75' wind, Tower 2 316'-33' Delta T)

Program Title: ARCON96.

Developed For: U.S. Nuclear Regulatory Commission
Office of Nuclear Reactor Regulation
Division of Reactor Program Management

Date: June 25, 1997 11:00 a.m.

NRC Contacts: J. Y. Lee Phone: (301) 415 1080
e-mail: jy11@nrc.gov
J. J. Hayes Phone: (301) 415 3167
e-mail: jjh@nrc.gov
L. A. Brown Phone: (301) 415 1232
e-mail: lab2@nrc.gov

Code Developer: J. V. Ramsdell Phone: (509) 372 6316
e-mail: j_ramsdell@pnl.gov

Code Documentation: NUREG/CR-6331 Rev. 1

The program was prepared for an agency of the United States Government. Neither the United States Government nor any agency thereof, nor any of their employees, makes any warranty, expressed or implied, or assumes any legal liability or responsibilities for any third party's use, or the results of such use, of any portion of this program or represents that its use by such third party would not infringe privately owned rights.

Program Run 12/30/2002 at 15:35:22

***** ARCON INPUT *****

Number of Meteorological Data Files = 5

Meteorological Data File Names

D:\TRACIP~1\ARCON\PEACHB~1\T2A84A~1.MET
D:\TRACIP~1\ARCON\PEACHB~1\T2A85A~1.MET
D:\TRACIP~1\ARCON\PEACHB~1\T2A86A~1.MET
D:\TRACIP~1\ARCON\PEACHB~1\T2A87A~1.MET

Calculation No. PM-1055 Revision 0**Attachment I****Sheet 3 of 35**

D:\TRACIP~1\ARCON\PEACHB~1\T2A88A~1.MET

Height of lower wind instrument (m) = 22.9

Height of upper wind instrument (m) = 97.5

Wind speeds entered as miles per hour

Elevated release

Release height (m) = 152.4

Building Area (m²) = 2583.6

Effluent vertical velocity (m/s) = .00

Vent or stack flow (m³/s) = .00

Vent or stack radius (m) = .00

Direction .. intake to source (deg) = 244

Wind direction sector width (deg) = 90

Wind direction window (deg) = 199 - 289

Distance to intake (m) = 208.8

Intake height (m) = 21.0

Terrain elevation difference (m) = 49.9

Output file names

OGStoCR.log

OGStoCR.cfd

Minimum Wind Speed (m/s) = .2

Surface roughness length (m) = .10

Sector averaging constant = 4.0

Initial value of sigma y = .00

Initial value of sigma z = .00

Expanded output for code testing not selected

Total number of hours of data processed = 43800

Hours of missing data = 559

Hours direction in window = 10538

Hours elevated plume w/ dir. in window = 525

Hours of calm winds = 13

Hours direction not in window or calm = 32690

DISTRIBUTION SUMMARY DATA BY AVERAGING INTERVAL

AV. PER.	1	2	4	8	12	24	96	168	360	720
----------	---	---	---	---	----	----	----	-----	-----	-----

Calculation No. PM-1055 Revision 0
Attachment I
Sheet 4 of 35

UPPER LIM.	1.00E-11	1.00E-11	1.00E-11	1.00E-11	1.00E-11	1.00E-11	1.00E-11	1.00E-11	1.00E-11	1.00E-11	1.00E-11
LOW LIM.	1.00E-15	1.00E-15	1.00E-15	1.00E-15	1.00E-15	1.00E-15	1.00E-15	1.00E-15	1.00E-15	1.00E-15	1.00E-15
ABOVE RANGE	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
IN RANGE	83.	123.	202.	350.	497.	909.	2800.	4142.	6016.	6470.	
BELOW RANGE	0.	0.	0.	0.	0.	0.	0.	0.	611.	2404.	
ZERO	43158.	43061.	42868.	42496.	42408.	41837.	39284.	37296.	35868.	33254.	
TOTAL X/Qs	43241.	43184.	43070.	42846.	42905.	42746.	42084.	41438.	42495.	42128.	
% NON ZERO	.19	.28	.47	.82	1.16	2.13	6.65	10.00	15.59	21.06	

95th PERCENTILE X/Q VALUES

1.00E-15	1.00E-15	1.00E-15	1.00E-15	1.00E-15	1.00E-15	1.00E-15	5.69E-15	6.80E-15	6.04E-15	5.89E-15
----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------

95% X/Q for standard averaging intervals

0 to 2 hours	1.00E-15
2 to 8 hours	1.00E-15
8 to 24 hours	1.00E-15
1 to 4 days	7.25E-15
4 to 30 days	5.92E-15

HOURLY VALUE RANGE

MAX X/Q	MIN X/Q
---------	---------

CENTERLINE	1.40E-12	3.10E-38
------------	----------	----------

SECTOR-AVERAGE	8.78E-13	1.94E-38
----------------	----------	----------

NORMAL PROGRAM COMPLETION

X/Q CUMULATIVE FREQUENCY DISTRIBUTIONS

XOQ	1	2	4	8	XOQ	12	24	96	168	360	720
Abv. Lim.	0.	0.	0.	0.	Abv. Lim.	0.	0.	0.	0.	0.	0.
9.120E-12	0.	0.	0.	0.	9.120E-12	0.	0.	0.	0.	0.	0.
8.318E-12	0.	0.	0.	0.	8.318E-12	0.	0.	0.	0.	0.	0.
7.586E-12	0.	0.	0.	0.	7.586E-12	0.	0.	0.	0.	0.	0.
6.918E-12	0.	0.	0.	0.	6.918E-12	0.	0.	0.	0.	0.	0.
6.310E-12	0.	0.	0.	0.	6.310E-12	0.	0.	0.	0.	0.	0.
5.754E-12	0.	0.	0.	0.	5.754E-12	0.	0.	0.	0.	0.	0.
5.248E-12	0.	0.	0.	0.	5.248E-12	0.	0.	0.	0.	0.	0.
4.786E-12	0.	0.	0.	0.	4.786E-12	0.	0.	0.	0.	0.	0.
4.365E-12	0.	0.	0.	0.	4.365E-12	0.	0.	0.	0.	0.	0.
3.981E-12	0.	0.	0.	0.	3.981E-12	0.	0.	0.	0.	0.	0.
3.631E-12	0.	0.	0.	0.	3.631E-12	0.	0.	0.	0.	0.	0.
3.311E-12	0.	0.	0.	0.	3.311E-12	0.	0.	0.	0.	0.	0.
3.020E-12	0.	0.	0.	0.	3.020E-12	0.	0.	0.	0.	0.	0.
2.754E-12	0.	0.	0.	0.	2.754E-12	0.	0.	0.	0.	0.	0.
2.512E-12	0.	0.	0.	0.	2.512E-12	0.	0.	0.	0.	0.	0.
2.291E-12	0.	0.	0.	0.	2.291E-12	0.	0.	0.	0.	0.	0.
2.089E-12	0.	0.	0.	0.	2.089E-12	0.	0.	0.	0.	0.	0.
1.905E-12	0.	0.	0.	0.	1.905E-12	0.	0.	0.	0.	0.	0.
1.738E-12	0.	0.	0.	0.	1.738E-12	0.	0.	0.	0.	0.	0.
1.585E-12	0.	0.	0.	0.	1.585E-12	0.	0.	0.	0.	0.	0.
1.445E-12	0.	0.	0.	0.	1.445E-12	0.	0.	0.	0.	0.	0.
1.318E-12	2.	1.	0.	0.	1.318E-12	0.	0.	0.	0.	0.	0.
1.202E-12	3.	2.	0.	0.	1.202E-12	0.	0.	0.	0.	0.	0.
1.096E-12	4.	2.	0.	0.	1.096E-12	0.	0.	0.	0.	0.	0.
1.000E-12	6.	2.	0.	0.	1.000E-12	0.	0.	0.	0.	0.	0.
9.120E-13	10.	3.	2.	0.	9.120E-13	0.	0.	0.	0.	0.	0.
8.318E-13	11.	4.	2.	0.	8.318E-13	0.	0.	0.	0.	0.	0.
7.586E-13	19.	9.	2.	0.	7.586E-13	0.	0.	0.	0.	0.	0.
6.918E-13	22.	12.	4.	0.	6.918E-13	0.	0.	0.	0.	0.	0.
6.310E-13	35.	22.	5.	0.	6.310E-13	0.	0.	0.	0.	0.	0.
5.754E-13	45.	30.	10.	0.	5.754E-13	0.	0.	0.	0.	0.	0.
5.248E-13	52.	34.	15.	0.	5.248E-13	0.	0.	0.	0.	0.	0.
4.786E-13	56.	37.	21.	0.	4.786E-13	0.	0.	0.	0.	0.	0.
4.365E-13	62.	45.	27.	6.	4.365E-13	0.	0.	0.	0.	0.	0.
3.981E-13	72.	59.	30.	6.	3.981E-13	0.	0.	0.	0.	0.	0.
3.631E-13	74.	62.	44.	6.	3.631E-13	0.	0.	0.	0.	0.	0.
3.311E-13	79.	72.	53.	17.	3.311E-13	0.	0.	0.	0.	0.	0.
3.020E-13	82.	83.	64.	34.	3.020E-13	6.	0.	0.	0.	0.	0.
2.754E-13	83.	91.	70.	46.	2.754E-13	7.	0.	0.	0.	0.	0.

2.512E-13	83.	95.	75.	49.	2.512E-13	7.	0.	0.	0.	0.	0.
2.291E-13	83.	99.	86.	68.	2.291E-13	18.	0.	0.	0.	0.	0.
2.089E-13	83.	104.	93.	77.	2.089E-13	31.	0.	0.	0.	0.	0.
1.905E-13	83.	113.	112.	101.	1.905E-13	47.	0.	0.	0.	0.	0.
1.738E-13	83.	117.	117.	111.	1.738E-13	57.	0.	0.	0.	0.	0.
1.585E-13	83.	118.	139.	130.	1.585E-13	76.	0.	0.	0.	0.	0.
1.445E-13	83.	123.	152.	146.	1.445E-13	95.	6.	0.	0.	0.	0.
1.318E-13	83.	123.	160.	148.	1.318E-13	103.	7.	0.	0.	0.	0.
1.202E-13	83.	123.	168.	156.	1.202E-13	131.	7.	0.	0.	0.	0.
1.096E-13	83.	123.	175.	182.	1.096E-13	156.	18.	0.	0.	0.	0.
1.000E-13	83.	123.	187.	206.	1.000E-13	178.	38.	0.	0.	0.	0.
9.120E-14	83.	123.	189.	217.	9.120E-14	186.	69.	0.	0.	0.	0.
8.318E-14	83.	123.	193.	239.	8.318E-14	197.	75.	0.	0.	0.	0.
7.586E-14	83.	123.	201.	259.	7.586E-14	238.	107.	0.	0.	0.	0.
6.918E-14	83.	123.	202.	286.	6.918E-14	245.	144.	0.	0.	0.	0.
6.310E-14	83.	123.	202.	297.	6.310E-14	281.	206.	0.	0.	0.	0.
5.754E-14	83.	123.	202.	307.	5.754E-14	287.	248.	0.	0.	0.	0.
5.248E-14	83.	123.	202.	324.	5.248E-14	328.	278.	0.	0.	0.	0.
4.786E-14	83.	123.	202.	333.	4.786E-14	356.	326.	6.	0.	0.	0.
4.365E-14	83.	123.	202.	336.	4.365E-14	372.	345.	8.	0.	0.	0.
3.981E-14	83.	123.	202.	337.	3.981E-14	401.	406.	37.	0.	0.	0.
3.631E-14	83.	123.	202.	350.	3.631E-14	415.	440.	39.	0.	0.	0.
3.311E-14	83.	123.	202.	350.	3.311E-14	439.	490.	50.	0.	0.	0.
3.020E-14	83.	123.	202.	350.	3.020E-14	450.	519.	70.	6.	0.	0.
2.754E-14	83.	123.	202.	350.	2.754E-14	458.	537.	152.	24.	0.	0.
2.512E-14	83.	123.	202.	350.	2.512E-14	478.	569.	204.	31.	0.	0.
2.291E-14	83.	123.	202.	350.	2.291E-14	484.	643.	251.	224.	0.	0.
2.089E-14	83.	123.	202.	350.	2.089E-14	490.	683.	337.	234.	0.	0.
1.905E-14	83.	123.	202.	350.	1.905E-14	491.	709.	368.	260.	2.	0.
1.738E-14	83.	123.	202.	350.	1.738E-14	493.	746.	571.	274.	18.	0.
1.585E-14	83.	123.	202.	350.	1.585E-14	497.	781.	720.	417.	37.	0.
1.445E-14	83.	123.	202.	350.	1.445E-14	497.	827.	1061.	507.	369.	0.
1.318E-14	83.	123.	202.	350.	1.318E-14	497.	844.	1107.	565.	408.	0.
1.202E-14	83.	123.	202.	350.	1.202E-14	497.	869.	1249.	738.	452.	0.
1.096E-14	83.	123.	202.	350.	1.096E-14	497.	887.	1399.	759.	582.	0.
1.000E-14	83.	123.	202.	350.	1.000E-14	497.	890.	1486.	1170.	733.	7.
9.120E-15	83.	123.	202.	350.	9.120E-15	497.	892.	1667.	1326.	846.	407.
8.318E-15	83.	123.	202.	350.	8.318E-15	497.	893.	1803.	1775.	926.	509.
7.586E-15	83.	123.	202.	350.	7.586E-15	497.	909.	1886.	1851.	1465.	1202.
6.918E-15	83.	123.	202.	350.	6.918E-15	497.	909.	1908.	2021.	1636.	1477.
6.310E-15	83.	123.	202.	350.	6.310E-15	497.	909.	1941.	2280.	1953.	1670.
5.754E-15	83.	123.	202.	350.	5.754E-15	497.	909.	2099.	2359.	2308.	2248.

Calculation No. PM-1055 Revision 0**Attachment I****Sheet 7 of 35**

5.248E-15	83.	123.	202.	350.	5.248E-15	497.	909.	2138.	2492.	2394.	2463.
4.786E-15	83.	123.	202.	350.	4.786E-15	497.	909.	2235.	2732.	2840.	3284.
4.365E-15	83.	123.	202.	350.	4.365E-15	497.	909.	2424.	2784.	2971.	3609.
3.981E-15	83.	123.	202.	350.	3.981E-15	497.	909.	2540.	2806.	3540.	3881.
3.631E-15	83.	123.	202.	350.	3.631E-15	497.	909.	2572.	2851.	3780.	4377.
3.311E-15	83.	123.	202.	350.	3.311E-15	497.	909.	2594.	3046.	3783.	4553.
3.020E-15	83.	123.	202.	350.	3.020E-15	497.	909.	2682.	3085.	4187.	4819.
2.754E-15	83.	123.	202.	350.	2.754E-15	497.	909.	2770.	3252.	4336.	4837.
2.512E-15	83.	123.	202.	350.	2.512E-15	497.	909.	2772.	3585.	4355.	5216.
2.291E-15	83.	123.	202.	350.	2.291E-15	497.	909.	2775.	3748.	4648.	5480.
2.089E-15	83.	123.	202.	350.	2.089E-15	497.	909.	2796.	3779.	4663.	5640.
1.905E-15	83.	123.	202.	350.	1.905E-15	497.	909.	2800.	3801.	4663.	5969.
1.738E-15	83.	123.	202.	350.	1.738E-15	497.	909.	2800.	3961.	4799.	5970.
1.585E-15	83.	123.	202.	350.	1.585E-15	497.	909.	2800.	4121.	4890.	5970.
1.445E-15	83.	123.	202.	350.	1.445E-15	497.	909.	2800.	4123.	4892.	6170.
1.318E-15	83.	123.	202.	350.	1.318E-15	497.	909.	2800.	4125.	4935.	6170.
1.202E-15	83.	123.	202.	350.	1.202E-15	497.	909.	2800.	4136.	4943.	6172.
1.096E-15	83.	123.	202.	350.	1.096E-15	497.	909.	2800.	4142.	5999.	6470.
1.000E-15	83.	123.	202.	350.	1.000E-15	497.	909.	2800.	4142.	6016.	6470.
Belw. Lim.	0.	0.	0.	0.	Belw. Lim.	0.	0.	0.	0.	611.	2404.

ARCON96 Input**Unit 2 Reactor Building Stack to Control Room Intake (Tower 2 75'and 33' wind, Tower 2 150'-33' Delta T)**

5

D:\TRACIP~1\ARCON\PEACHB~1\T2B84A~1.MET

D:\TRACIP~1\ARCON\PEACHB~1\T2B85A~1.MET

D:\TRACIP~1\ARCON\PEACHB~1\T2B86A~1.MET

D:\TRACIP~1\ARCON\PEACHB~1\T2B87A~1.MET

D:\TRACIP~1\ARCON\PEACHB~1\T2B88A~1.MET

10.10

22.90

2

2

57.60

2583.60

0.00

0.00

0.00

113 90

58.40

21.00

0.00

2RBStoCR.log

2RBStoCR.cfd

.1

0.22

4.00

1 2 4 8 12 24 96.168 360 720

1 2 4 8 11 22 87 152 324 648

0.00 0.00

n

ARCON96 Output

Unit 2 Reactor Building Stack to Control Room Intake (Tower 2 75' and 33' wind, Tower 2 150'-33' Delta T)

Program Title: ARCON96.

Developed For: U.S. Nuclear Regulatory Commission
Office of Nuclear Reactor Regulation
Division of Reactor Program Management

Date: June 25, 1997 11:00 a.m.

NRC Contacts: J. Y. Lee Phone: (301) 415 1080
e-mail: jy11@nrc.gov
J. J. Hayes Phone: (301) 415 3167
e-mail: jjh@nrc.gov
L. A. Brown Phone: (301) 415 1232
e-mail: lab2@nrc.gov

Code Developer: J. V. Ramsdell Phone: (509) 372 6316
e-mail: j_ramsdell@pnl.gov

Code Documentation: NUREG/CR-6331 Rev. 1

The program was prepared for an agency of the United States Government. Neither the United States Government nor any agency thereof, nor any of their employees, makes any warranty, expressed or implied, or assumes any legal liability or responsibilities for any third party's use, or the results of such use, of any portion of this program or represents that its use by such third party would not infringe privately owned rights.

Program Run 12/30/2002 at 15:34:50

***** ARCON INPUT *****

Number of Meteorological Data Files = 5

Meteorological Data File Names

D:\TRACIP~1\ARCON\PEACHB~1\T2B84A~1.MET
D:\TRACIP~1\ARCON\PEACHB~1\T2B85A~1.MET
D:\TRACIP~1\ARCON\PEACHB~1\T2B86A~1.MET
D:\TRACIP~1\ARCON\PEACHB~1\T2B87A~1.MET
D:\TRACIP~1\ARCON\PEACHB~1\T2B88A~1.MET

[illegible]

Calculation No. PM-1055 Revision 0
Attachment I
Sheet 11 of 35

LOW LIM.	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06
ABOVE RANGE	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
IN RANGE	8328.	10564.	13548.	17538.	20575.	27025.	40683.	41365.	42347.	42100.	
BELOW RANGE	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
ZERO	34894.	32600.	29500.	25282.	22292.	15663.	1283.	65.	0.	0.	
TOTAL X/Qs	43222.	43164.	43048.	42820.	42867.	42688.	41966.	41430.	42347.	42100.	
% NON ZERO	19.27	24.47	31.47	40.96	48.00	63.31	96.94	99.84	100.00	100.00	

95th PERCENTILE X/Q VALUES

1.18E-03	1.14E-03	1.05E-03	9.36E-04	7.66E-04	5.45E-04	3.14E-04	2.56E-04	2.16E-04	1.86E-04
----------	----------	----------	----------	----------	----------	----------	----------	----------	----------

95% X/Q for standard averaging intervals

0 to 2 hours	1.18E-03
2 to 8 hours	8.55E-04
8 to 24 hours	3.50E-04
1 to 4 days	2.36E-04
4 to 30 days	1.67E-04

HOURLY VALUE RANGE

	MAX X/Q	MIN X/Q
CENTERLINE	1.70E-03	2.10E-04
SECTOR-AVERAGE	1.07E-03	1.31E-04

NORMAL PROGRAM COMPLETION

X/Q CUMULATIVE FREQUENCY DISTRIBUTIONS

XOQ	1	2	4	8	XOQ	12	24	96	168	360	720
Abv. Lim.	0.	0.	0.	0.	Abv. Lim.	0.	0.	0.	0.	0.	0.
9.120E-03	0.	0.	0.	0.	9.120E-03	0.	0.	0.	0.	0.	0.
8.318E-03	0.	0.	0.	0.	8.318E-03	0.	0.	0.	0.	0.	0.
7.586E-03	0.	0.	0.	0.	7.586E-03	0.	0.	0.	0.	0.	0.
6.918E-03	0.	0.	0.	0.	6.918E-03	0.	0.	0.	0.	0.	0.
6.310E-03	0.	0.	0.	0.	6.310E-03	0.	0.	0.	0.	0.	0.
5.754E-03	0.	0.	0.	0.	5.754E-03	0.	0.	0.	0.	0.	0.
5.248E-03	0.	0.	0.	0.	5.248E-03	0.	0.	0.	0.	0.	0.
4.786E-03	0.	0.	0.	0.	4.786E-03	0.	0.	0.	0.	0.	0.
4.365E-03	0.	0.	0.	0.	4.365E-03	0.	0.	0.	0.	0.	0.
3.981E-03	0.	0.	0.	0.	3.981E-03	0.	0.	0.	0.	0.	0.
3.631E-03	0.	0.	0.	0.	3.631E-03	0.	0.	0.	0.	0.	0.
3.311E-03	0.	0.	0.	0.	3.311E-03	0.	0.	0.	0.	0.	0.
3.020E-03	0.	0.	0.	0.	3.020E-03	0.	0.	0.	0.	0.	0.
2.754E-03	0.	0.	0.	0.	2.754E-03	0.	0.	0.	0.	0.	0.
2.512E-03	0.	0.	0.	0.	2.512E-03	0.	0.	0.	0.	0.	0.
2.291E-03	0.	0.	0.	0.	2.291E-03	0.	0.	0.	0.	0.	0.
2.089E-03	0.	0.	0.	0.	2.089E-03	0.	0.	0.	0.	0.	0.
1.905E-03	0.	0.	0.	0.	1.905E-03	0.	0.	0.	0.	0.	0.
1.738E-03	0.	0.	0.	0.	1.738E-03	0.	0.	0.	0.	0.	0.
1.585E-03	45.	15.	2.	0.	1.585E-03	0.	0.	0.	0.	0.	0.
1.445E-03	197.	107.	60.	19.	1.445E-03	0.	0.	0.	0.	0.	0.
1.318E-03	1215.	724.	365.	141.	1.318E-03	0.	0.	0.	0.	0.	0.
1.202E-03	1793.	1476.	991.	484.	1.202E-03	19.	0.	0.	0.	0.	0.
1.096E-03	3408.	2668.	1810.	1128.	1.096E-03	139.	0.	0.	0.	0.	0.
1.000E-03	4402.	3402.	2494.	1673.	1.000E-03	515.	10.	0.	0.	0.	0.
9.120E-04	4926.	3914.	3127.	2314.	9.120E-04	994.	34.	0.	0.	0.	0.
8.318E-04	5684.	4415.	3733.	2884.	8.318E-04	1565.	155.	0.	0.	0.	0.
7.586E-04	6058.	4810.	4272.	3564.	7.586E-04	2206.	377.	0.	0.	0.	0.
6.918E-04	6576.	5165.	4747.	4162.	6.918E-04	2855.	711.	0.	0.	0.	0.
6.310E-04	6822.	5803.	5417.	4827.	6.310E-04	3536.	1129.	0.	0.	0.	0.
5.754E-04	7182.	6430.	6123.	5529.	5.754E-04	4200.	1712.	10.	0.	0.	0.
5.248E-04	7332.	7035.	6771.	6127.	5.248E-04	4882.	2423.	61.	0.	0.	0.
4.786E-04	7825.	7691.	7312.	6873.	4.786E-04	5605.	3133.	114.	0.	0.	0.
4.365E-04	8084.	8335.	7841.	7587.	4.365E-04	6294.	3924.	256.	17.	0.	0.
3.981E-04	8192.	8773.	8241.	8257.	3.981E-04	7038.	4812.	449.	87.	0.	0.
3.631E-04	8263.	9245.	8658.	8856.	3.631E-04	7781.	5746.	963.	258.	0.	0.
3.311E-04	8289.	9551.	9139.	9420.	3.311E-04	8493.	6685.	1623.	635.	9.	0.
3.020E-04	8312.	9763.	9581.	10096.	3.020E-04	9192.	7660.	2410.	1130.	116.	0.

Calculation No. PM-1055 Revision 0
Attachment I
Sheet 13 of 35

2.754E-04	8323.	9928.	10221.	10746.	2.754E-04	9886.	8599.	3218.	1517.	419.	0.
2.512E-04	8325.	10008.	10695.	11281.	2.512E-04	10553.	9546.	4382.	2205.	851.	0.
2.291E-04	8327.	10437.	11213.	11795.	2.291E-04	11187.	10478.	5646.	3418.	1520.	291.
2.089E-04	8328.	10524.	11729.	12260.	2.089E-04	11908.	11376.	7136.	5073.	2444.	646.
1.905E-04	8328.	10546.	12048.	12586.	1.905E-04	12496.	12261.	9171.	6587.	3879.	1441.
1.738E-04	8328.	10554.	12454.	12948.	1.738E-04	13131.	13082.	10930.	8560.	5876.	4018.
1.585E-04	8328.	10561.	12670.	13432.	1.585E-04	13663.	13846.	12904.	10712.	8249.	7279.
1.445E-04	8328.	10563.	12898.	13946.	1.445E-04	14203.	14686.	14787.	13498.	11202.	10467.
1.318E-04	8328.	10564.	13004.	14514.	1.318E-04	14639.	15567.	16647.	16143.	14814.	13905.
1.202E-04	8328.	10564.	13367.	14960.	1.202E-04	15016.	16308.	18331.	18612.	18853.	18075.
1.096E-04	8328.	10564.	13491.	15424.	1.096E-04	15521.	17108.	20086.	21520.	22927.	22633.
1.000E-04	8328.	10564.	13526.	15878.	1.000E-04	15962.	17863.	21964.	23653.	26460.	26747.
9.120E-05	8328.	10564.	13535.	16285.	9.120E-05	16522.	18607.	23413.	25807.	28796.	31046.
8.318E-05	8328.	10564.	13540.	16586.	8.318E-05	17043.	19190.	24761.	27627.	31187.	34182.
7.586E-05	8328.	10564.	13548.	16736.	7.586E-05	17413.	19786.	26230.	29431.	33562.	36411.
6.918E-05	8328.	10564.	13548.	16939.	6.918E-05	17942.	20308.	27497.	30845.	34989.	38084.
6.310E-05	8328.	10564.	13548.	17001.	6.310E-05	18257.	20862.	29041.	32008.	36558.	39832.
5.754E-05	8328.	10564.	13548.	17426.	5.754E-05	18680.	21355.	30172.	33028.	38126.	40841.
5.248E-05	8328.	10564.	13548.	17507.	5.248E-05	18906.	21827.	31223.	34088.	39118.	41281.
4.786E-05	8328.	10564.	13548.	17524.	4.786E-05	19203.	22330.	32122.	34872.	40068.	41881.
4.365E-05	8328.	10564.	13548.	17527.	4.365E-05	19501.	22893.	32991.	35830.	40746.	42032.
3.981E-05	8328.	10564.	13548.	17534.	3.981E-05	19816.	23281.	33633.	36797.	41390.	42081.
3.631E-05	8328.	10564.	13548.	17538.	3.631E-05	20072.	23707.	34211.	37437.	41726.	42100.
3.311E-05	8328.	10564.	13548.	17538.	3.311E-05	20187.	24104.	34866.	38163.	41910.	42100.
3.020E-05	8328.	10564.	13548.	17538.	3.020E-05	20282.	24532.	35485.	38631.	42019.	42100.
2.754E-05	8328.	10564.	13548.	17538.	2.754E-05	20385.	24957.	36173.	38833.	42175.	42100.
2.512E-05	8328.	10564.	13548.	17538.	2.512E-05	20519.	25231.	36745.	39165.	42266.	42100.
2.291E-05	8328.	10564.	13548.	17538.	2.291E-05	20562.	25560.	37087.	39428.	42278.	42100.
2.089E-05	8328.	10564.	13548.	17538.	2.089E-05	20571.	25882.	37469.	39747.	42303.	42100.
1.905E-05	8328.	10564.	13548.	17538.	1.905E-05	20572.	26260.	37718.	40011.	42330.	42100.
1.738E-05	8328.	10564.	13548.	17538.	1.738E-05	20572.	26483.	38056.	40187.	42347.	42100.
1.585E-05	8328.	10564.	13548.	17538.	1.585E-05	20575.	26566.	38384.	40347.	42347.	42100.
1.445E-05	8328.	10564.	13548.	17538.	1.445E-05	20575.	26756.	38538.	40521.	42347.	42100.
1.318E-05	8328.	10564.	13548.	17538.	1.318E-05	20575.	26800.	38732.	40669.	42347.	42100.
1.202E-05	8328.	10564.	13548.	17538.	1.202E-05	20575.	26971.	38992.	40728.	42347.	42100.
1.096E-05	8328.	10564.	13548.	17538.	1.096E-05	20575.	27014.	39335.	40842.	42347.	42100.
1.000E-05	8328.	10564.	13548.	17538.	1.000E-05	20575.	27022.	39409.	40939.	42347.	42100.
9.120E-06	8328.	10564.	13548.	17538.	9.120E-06	20575.	27022.	39472.	41020.	42347.	42100.
8.318E-06	8328.	10564.	13548.	17538.	8.318E-06	20575.	27025.	39530.	41034.	42347.	42100.
7.586E-06	8328.	10564.	13548.	17538.	7.586E-06	20575.	27025.	39688.	41134.	42347.	42100.
6.918E-06	8328.	10564.	13548.	17538.	6.918E-06	20575.	27025.	39952.	41189.	42347.	42100.
6.310E-06	8328.	10564.	13548.	17538.	6.310E-06	20575.	27025.	40026.	41229.	42347.	42100.

Calculation No. PM-1055 Revision 0**Attachment I****Sheet 14 of 35**

5.754E-06	8328.	10564.	13548.	17538.	5.754E-06	20575.	27025.	40176.	41232.	42347.	42100.
5.248E-06	8328.	10564.	13548.	17538.	5.248E-06	20575.	27025.	40305.	41248.	42347.	42100.
4.786E-06	8328.	10564.	13548.	17538.	4.786E-06	20575.	27025.	40456.	41264.	42347.	42100.
4.365E-06	8328.	10564.	13548.	17538.	4.365E-06	20575.	27025.	40567.	41272.	42347.	42100.
3.981E-06	8328.	10564.	13548.	17538.	3.981E-06	20575.	27025.	40570.	41329.	42347.	42100.
3.631E-06	8328.	10564.	13548.	17538.	3.631E-06	20575.	27025.	40614.	41333.	42347.	42100.
3.311E-06	8328.	10564.	13548.	17538.	3.311E-06	20575.	27025.	40634.	41334.	42347.	42100.
3.020E-06	8328.	10564.	13548.	17538.	3.020E-06	20575.	27025.	40659.	41334.	42347.	42100.
2.754E-06	8328.	10564.	13548.	17538.	2.754E-06	20575.	27025.	40683.	41341.	42347.	42100.
2.512E-06	8328.	10564.	13548.	17538.	2.512E-06	20575.	27025.	40683.	41361.	42347.	42100.
2.291E-06	8328.	10564.	13548.	17538.	2.291E-06	20575.	27025.	40683.	41361.	42347.	42100.
2.089E-06	8328.	10564.	13548.	17538.	2.089E-06	20575.	27025.	40683.	41361.	42347.	42100.
1.905E-06	8328.	10564.	13548.	17538.	1.905E-06	20575.	27025.	40683.	41361.	42347.	42100.
1.738E-06	8328.	10564.	13548.	17538.	1.738E-06	20575.	27025.	40683.	41365.	42347.	42100.
1.585E-06	8328.	10564.	13548.	17538.	1.585E-06	20575.	27025.	40683.	41365.	42347.	42100.
1.445E-06	8328.	10564.	13548.	17538.	1.445E-06	20575.	27025.	40683.	41365.	42347.	42100.
1.318E-06	8328.	10564.	13548.	17538.	1.318E-06	20575.	27025.	40683.	41365.	42347.	42100.
1.202E-06	8328.	10564.	13548.	17538.	1.202E-06	20575.	27025.	40683.	41365.	42347.	42100.
1.096E-06	8328.	10564.	13548.	17538.	1.096E-06	20575.	27025.	40683.	41365.	42347.	42100.
1.000E-06	8328.	10564.	13548.	17538.	1.000E-06	20575.	27025.	40683.	41365.	42347.	42100.
Belw. Lim.	0.	0.	0.	0.	Belw. Lim.	0.	0.	0.	0.	0.	0.

ARCON96 Input**Unit 2 Reactor Building Stack to Control Room Intake (Tower 1A 92'and 34' wind, Tower 1A 89'-33' Delta T)**

5

D:\TRACIP~1\ARCON\PEACHB~1\T1AA84~1.MET

D:\TRACIP~1\ARCON\PEACHB~1\T1AA85~1.MET

D:\TRACIP~1\ARCON\PEACHB~1\T1AA86~1.MET

D:\TRACIP~1\ARCON\PEACHB~1\T1AA87~1.MET

D:\TRACIP~1\ARCON\PEACHB~1\T1AA88~1.MET

10.36

28.04

2

2

57.60

2583.60

0.00

0.00

0.00

113 90

58.40

21.00

0.00

2RSCR1A.log

2RSCR1A.cfd

.1

0.22

4.00

1 2 4 8 12 24 96 168 360 720

1 2 4 8 11 22 87 152 324 648

0.00 0.00

n

ARCON96 Output

Unit 2 Reactor Building Stack to Control Room Intake (Tower 1A 92' and 34' wind, Tower 1A 89'-33' Delta T)

Program Title: ARCON96.

Developed For: U.S. Nuclear Regulatory Commission
Office of Nuclear Reactor Regulation
Division of Reactor Program Management

Date: June 25, 1997 11:00 a.m.

NRC Contacts: J. Y. Lee Phone: (301) 415 1080
e-mail: jyl1@nrc.gov
J. J. Hayes Phone: (301) 415 3167
e-mail: jjh@nrc.gov
L. A. Brown Phone: (301) 415 1232
e-mail: lab2@nrc.gov

Code Developer: J. V. Ramsdell Phone: (509) 372 6316
e-mail: j_ramsdell@pnl.gov

Code Documentation: NUREG/CR-6331 Rev. 1

The program was prepared for an agency of the United States Government. Neither the United States Government nor any agency thereof, nor any of their employees, makes any warranty, expressed or implied, or assumes any legal liability or responsibilities for any third party's use, or the results of such use, of any portion of this program or represents that its use by such third party would not infringe privately owned rights.

Program Run 1/9/2003 at 14:42:11

***** ARCON INPUT *****

Number of Meteorological Data Files = 5

Meteorological Data File Names

D:\TRACIP~1\ARCON\PEACHB~1\T1AA84~1.MET
D:\TRACIP~1\ARCON\PEACHB~1\T1AA85~1.MET
D:\TRACIP~1\ARCON\PEACHB~1\T1AA86~1.MET
D:\TRACIP~1\ARCON\PEACHB~1\T1AA87~1.MET
D:\TRACIP~1\ARCON\PEACHB~1\T1AA88~1.MET

Sheet 17 of 35

[illegible]

Calculation No. PM-1055 Revision 0
Attachment I
Sheet 18 of 35

ABOVE RANGE	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
IN RANGE	14123.	16719.	19959.	23952.	26939.	32635.	42145.	42538.	42343.	41983.
BELOW RANGE	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
ZERO	29213.	26557.	23198.	18969.	16044.	10067.	411.	0.	0.	0.
TOTAL X/Qs	43336.	43276.	43157.	42921.	42983.	42702.	42556.	42538.	42343.	41983.
% NON ZERO	32.59	38.63	46.25	55.80	62.67	76.42	99.03	100.00	100.00	100.00

95th PERCENTILE X/Q VALUES

1.17E-03 1.14E-03 1.07E-03 9.74E-04 8.05E-04 6.01E-04 3.67E-04 3.16E-04 2.73E-04 2.45E-04

95% X/Q for standard averaging intervals

0 to 2 hours	1.17E-03
2 to 8 hours	9.08E-04
8 to 24 hours	4.14E-04
1 to 4 days	2.90E-04
4 to 30 days	2.26E-04

HOURLY VALUE RANGE

	MAX X/Q	MIN X/Q
CENTERLINE	1.70E-03	1.55E-04
SECTOR-AVERAGE	1.07E-03	9.71E-05

NORMAL PROGRAM COMPLETION

X/Q CUMULATIVE FREQUENCY DISTRIBUTIONS

XOQ	1	2	4	8	XOQ	12	24	96	168	360	720
Abv. Lim.	0.	0.	0.	0.	Abv. Lim.	0.	0.	0.	0.	0.	0.
9.120E-03	0.	0.	0.	0.	9.120E-03	0.	0.	0.	0.	0.	0.
8.318E-03	0.	0.	0.	0.	8.318E-03	0.	0.	0.	0.	0.	0.
7.586E-03	0.	0.	0.	0.	7.586E-03	0.	0.	0.	0.	0.	0.
6.918E-03	0.	0.	0.	0.	6.918E-03	0.	0.	0.	0.	0.	0.
6.310E-03	0.	0.	0.	0.	6.310E-03	0.	0.	0.	0.	0.	0.
5.754E-03	0.	0.	0.	0.	5.754E-03	0.	0.	0.	0.	0.	0.
5.248E-03	0.	0.	0.	0.	5.248E-03	0.	0.	0.	0.	0.	0.
4.786E-03	0.	0.	0.	0.	4.786E-03	0.	0.	0.	0.	0.	0.
4.365E-03	0.	0.	0.	0.	4.365E-03	0.	0.	0.	0.	0.	0.
3.981E-03	0.	0.	0.	0.	3.981E-03	0.	0.	0.	0.	0.	0.
3.631E-03	0.	0.	0.	0.	3.631E-03	0.	0.	0.	0.	0.	0.
3.311E-03	0.	0.	0.	0.	3.311E-03	0.	0.	0.	0.	0.	0.
3.020E-03	0.	0.	0.	0.	3.020E-03	0.	0.	0.	0.	0.	0.
2.754E-03	0.	0.	0.	0.	2.754E-03	0.	0.	0.	0.	0.	0.
2.512E-03	0.	0.	0.	0.	2.512E-03	0.	0.	0.	0.	0.	0.
2.291E-03	0.	0.	0.	0.	2.291E-03	0.	0.	0.	0.	0.	0.
2.089E-03	0.	0.	0.	0.	2.089E-03	0.	0.	0.	0.	0.	0.
1.905E-03	0.	0.	0.	0.	1.905E-03	0.	0.	0.	0.	0.	0.
1.738E-03	0.	0.	0.	0.	1.738E-03	0.	0.	0.	0.	0.	0.
1.585E-03	72.	33.	9.	2.	1.585E-03	0.	0.	0.	0.	0.	0.
1.445E-03	291.	160.	56.	17.	1.445E-03	0.	0.	0.	0.	0.	0.
1.318E-03	1021.	593.	276.	108.	1.318E-03	2.	0.	0.	0.	0.	0.
1.202E-03	1620.	1309.	817.	380.	1.202E-03	25.	0.	0.	0.	0.	0.
1.096E-03	3555.	2696.	1849.	1043.	1.096E-03	157.	0.	0.	0.	0.	0.
1.000E-03	4736.	3774.	2853.	1864.	1.000E-03	415.	9.	0.	0.	0.	0.
9.120E-04	5762.	4818.	3864.	2830.	9.120E-04	972.	47.	0.	0.	0.	0.
8.318E-04	6963.	5718.	4999.	3942.	8.318E-04	1790.	169.	0.	0.	0.	0.
7.586E-04	8090.	6754.	6002.	5058.	7.586E-04	2785.	427.	0.	0.	0.	0.
6.918E-04	8912.	7500.	7013.	6242.	6.918E-04	3914.	846.	0.	0.	0.	0.
6.310E-04	9443.	8403.	7974.	7366.	6.310E-04	5130.	1564.	33.	0.	0.	0.
5.754E-04	9734.	9219.	8917.	8584.	5.754E-04	6382.	2621.	58.	0.	0.	0.
5.248E-04	10086.	9866.	9908.	9729.	5.248E-04	7668.	3815.	111.	0.	0.	0.
4.786E-04	11678.	11248.	10962.	10838.	4.786E-04	8978.	5041.	339.	34.	0.	0.
4.365E-04	12802.	12469.	11985.	11854.	4.365E-04	10254.	6400.	745.	90.	0.	0.
3.981E-04	13480.	13569.	12908.	12943.	3.981E-04	11466.	7921.	1396.	312.	0.	0.
3.631E-04	13788.	14178.	13764.	13813.	3.631E-04	12567.	9495.	2231.	646.	93.	0.
3.311E-04	13952.	14663.	14513.	14642.	3.311E-04	13561.	11011.	3558.	1515.	384.	0.
3.020E-04	14045.	15011.	15074.	15455.	3.020E-04	14513.	12482.	5294.	2675.	877.	22.

Calculation No. PM-1055 Revision 0**Attachment I**

Sheet 20 of 35

2.754E-04	14082.	15339.	15608.	16221.	2.754E-04	15442.	13861.	7338.	4493.	1977.	292.
2.512E-04	14102.	15522.	16064.	16922.	2.512E-04	16216.	15221.	9772.	7010.	3455.	1488.
2.291E-04	14114.	16419.	17025.	17592.	2.291E-04	16995.	16406.	12353.	9803.	6039.	3636.
2.089E-04	14118.	16622.	17425.	18079.	2.089E-04	17689.	17582.	14898.	13377.	9647.	7186.
1.905E-04	14120.	16684.	17866.	18585.	1.905E-04	18376.	18671.	17494.	16530.	14689.	11919.
1.738E-04	14121.	16706.	18247.	19178.	1.738E-04	19081.	19726.	20275.	20121.	19732.	20175.
1.585E-04	14122.	16711.	18481.	19656.	1.585E-04	19722.	20707.	22724.	23381.	24265.	26112.
1.445E-04	14123.	16717.	18719.	20087.	1.445E-04	20242.	21648.	24849.	26363.	28916.	31063.
1.318E-04	14123.	16718.	18957.	20476.	1.318E-04	20780.	22457.	26891.	29072.	31925.	34261.
1.202E-04	14123.	16718.	19529.	21101.	1.202E-04	21313.	23281.	28458.	31252.	34309.	37138.
1.096E-04	14123.	16718.	19848.	21560.	1.096E-04	21844.	24000.	30136.	33328.	36372.	38816.
1.000E-04	14123.	16719.	19917.	21936.	1.000E-04	22268.	24707.	31704.	35026.	37526.	39313.
9.120E-05	14123.	16719.	19936.	22263.	9.120E-05	22722.	25257.	32991.	36307.	38397.	39982.
8.318E-05	14123.	16719.	19949.	22524.	8.318E-05	23110.	26014.	34096.	37215.	39456.	40342.
7.586E-05	14123.	16719.	19957.	22723.	7.586E-05	23681.	26526.	35170.	38157.	40031.	40943.
6.918E-05	14123.	16719.	19958.	22970.	6.918E-05	24071.	27012.	35993.	38902.	41056.	41265.
6.310E-05	14123.	16719.	19958.	23095.	6.310E-05	24474.	27528.	36773.	39564.	41389.	41580.
5.754E-05	14123.	16719.	19958.	23707.	5.754E-05	24815.	28007.	37516.	40085.	41688.	41883.
5.248E-05	14123.	16719.	19959.	23882.	5.248E-05	25045.	28429.	38048.	40706.	42041.	41973.
4.786E-05	14123.	16719.	19959.	23931.	4.786E-05	25395.	28816.	38509.	41042.	42116.	41983.
4.365E-05	14123.	16719.	19959.	23939.	4.365E-05	25605.	29182.	38845.	41246.	42283.	41983.
3.981E-05	14123.	16719.	19959.	23944.	3.981E-05	26007.	29573.	39487.	41397.	42311.	41983.
3.631E-05	14123.	16719.	19959.	23950.	3.631E-05	26248.	29910.	39881.	41611.	42331.	41983.
3.311E-05	14123.	16719.	19959.	23951.	3.311E-05	26326.	30287.	40077.	41728.	42336.	41983.
3.020E-05	14123.	16719.	19959.	23951.	3.020E-05	26432.	30521.	40320.	41843.	42343.	41983.
2.754E-05	14123.	16719.	19959.	23951.	2.754E-05	26544.	30790.	40529.	41955.	42343.	41983.
2.512E-05	14123.	16719.	19959.	23952.	2.512E-05	26732.	31067.	40727.	42058.	42343.	41983.
2.291E-05	14123.	16719.	19959.	23952.	2.291E-05	26879.	31282.	40836.	42199.	42343.	41983.
2.089E-05	14123.	16719.	19959.	23952.	2.089E-05	26922.	31432.	40997.	42288.	42343.	41983.
1.905E-05	14123.	16719.	19959.	23952.	1.905E-05	26927.	31729.	41060.	42326.	42343.	41983.
1.738E-05	14123.	16719.	19959.	23952.	1.738E-05	26938.	31913.	41119.	42384.	42343.	41983.
1.585E-05	14123.	16719.	19959.	23952.	1.585E-05	26938.	31995.	41259.	42401.	42343.	41983.
1.445E-05	14123.	16719.	19959.	23952.	1.445E-05	26939.	32168.	41351.	42409.	42343.	41983.
1.318E-05	14123.	16719.	19959.	23952.	1.318E-05	26939.	32193.	41413.	42432.	42343.	41983.
1.202E-05	14123.	16719.	19959.	23952.	1.202E-05	26939.	32526.	41473.	42443.	42343.	41983.
1.096E-05	14123.	16719.	19959.	23952.	1.096E-05	26939.	32600.	41562.	42451.	42343.	41983.
1.000E-05	14123.	16719.	19959.	23952.	1.000E-05	26939.	32631.	41614.	42458.	42343.	41983.
9.120E-06	14123.	16719.	19959.	23952.	9.120E-06	26939.	32632.	41688.	42463.	42343.	41983.
8.318E-06	14123.	16719.	19959.	23952.	8.318E-06	26939.	32634.	41726.	42482.	42343.	41983.
7.586E-06	14123.	16719.	19959.	23952.	7.586E-06	26939.	32634.	41766.	42482.	42343.	41983.
6.918E-06	14123.	16719.	19959.	23952.	6.918E-06	26939.	32635.	41776.	42490.	42343.	41983.
6.310E-06	14123.	16719.	19959.	23952.	6.310E-06	26939.	32635.	41912.	42496.	42343.	41983.

Calculation No. PM-1055 Revision 0**Attachment I****Sheet 21 of 35**

5.754E-06	14123.	16719.	19959.	23952.	5.754E-06	26939.	32635.	41926.	42498.	42343.	41983.
5.248E-06	14123.	16719.	19959.	23952.	5.248E-06	26939.	32635.	41991.	42498.	42343.	41983.
4.786E-06	14123.	16719.	19959.	23952.	4.786E-06	26939.	32635.	42007.	42499.	42343.	41983.
4.365E-06	14123.	16719.	19959.	23952.	4.365E-06	26939.	32635.	42040.	42499.	42343.	41983.
3.981E-06	14123.	16719.	19959.	23952.	3.981E-06	26939.	32635.	42040.	42499.	42343.	41983.
3.631E-06	14123.	16719.	19959.	23952.	3.631E-06	26939.	32635.	42064.	42518.	42343.	41983.
3.311E-06	14123.	16719.	19959.	23952.	3.311E-06	26939.	32635.	42069.	42518.	42343.	41983.
3.020E-06	14123.	16719.	19959.	23952.	3.020E-06	26939.	32635.	42142.	42518.	42343.	41983.
2.754E-06	14123.	16719.	19959.	23952.	2.754E-06	26939.	32635.	42144.	42523.	42343.	41983.
2.512E-06	14123.	16719.	19959.	23952.	2.512E-06	26939.	32635.	42145.	42523.	42343.	41983.
2.291E-06	14123.	16719.	19959.	23952.	2.291E-06	26939.	32635.	42145.	42523.	42343.	41983.
2.089E-06	14123.	16719.	19959.	23952.	2.089E-06	26939.	32635.	42145.	42523.	42343.	41983.
1.905E-06	14123.	16719.	19959.	23952.	1.905E-06	26939.	32635.	42145.	42523.	42343.	41983.
1.738E-06	14123.	16719.	19959.	23952.	1.738E-06	26939.	32635.	42145.	42538.	42343.	41983.
1.585E-06	14123.	16719.	19959.	23952.	1.585E-06	26939.	32635.	42145.	42538.	42343.	41983.
1.445E-06	14123.	16719.	19959.	23952.	1.445E-06	26939.	32635.	42145.	42538.	42343.	41983.
1.318E-06	14123.	16719.	19959.	23952.	1.318E-06	26939.	32635.	42145.	42538.	42343.	41983.
1.202E-06	14123.	16719.	19959.	23952.	1.202E-06	26939.	32635.	42145.	42538.	42343.	41983.
1.096E-06	14123.	16719.	19959.	23952.	1.096E-06	26939.	32635.	42145.	42538.	42343.	41983.
1.000E-06	14123.	16719.	19959.	23952.	1.000E-06	26939.	32635.	42145.	42538.	42343.	41983.
Belw. Lim.	0.	0.	0.	0.	Belw. Lim.	0.	0.	0.	0.	0.	0.

ARCON96 Input**Unit 3 Reactor Building Stack to Control Room Intake (Tower 2 75' and 33' wind, Tower 2 150'-33' Delta T)**

5

D:\TRACIP~1\ARCON\PEACHB~1\T2B84A~1.MET

D:\TRACIP~1\ARCON\PEACHB~1\T2B85A~1.MET

D:\TRACIP~1\ARCON\PEACHB~1\T2B86A~1.MET

D:\TRACIP~1\ARCON\PEACHB~1\T2B87A~1.MET

D:\TRACIP~1\ARCON\PEACHB~1\T2B88A~1.MET

10.10

22.90

2

2

57.60

2583.60

0.00

0.00

0.00

15 90

58.40

21.00

0.00

3RBStoCR.log

3RBStoCR.cfd

.1

0.22

4.00

1 2 4 8 12 24 96 168 360 720

1 2 4 8 11 22 87 152 324 648

0.00 0.00

n

ARCON96 Output

Unit 3 Reactor Building Stack to Control Room Intake (Tower 2 75' and 33' wind, Tower 2 150'-33' Delta T)

Program Title: ARCON96.

Developed For: U.S. Nuclear Regulatory Commission
Office of Nuclear Reactor Regulation
Division of Reactor Program Management

Date: June 25, 1997 11:00 a.m.

NRC Contacts: J. Y. Lee Phone: (301) 415 1080
e-mail: jy11@nrc.gov
J. J. Hayes Phone: (301) 415 3167
e-mail: jjh@nrc.gov
L. A. Brown Phone: (301) 415 1232
e-mail: lab2@nrc.gov

Code Developer: J. V. Ramsdell Phone: (509) 372 6316
e-mail: j_ramsdell@pnl.gov

Code Documentation: NUREG/CR-6331 Rev. 1

The program was prepared for an agency of the United States Government. Neither the United States Government nor any agency thereof, nor any of their employees, makes any warranty, expressed or implied, or assumes any legal liability or responsibilities for any third party's use, or the results of such use, of any portion of this program or represents that its use by such third party would not infringe privately owned rights.

Program Run 12/30/2002 at 15:35:08

***** ARCON INPUT *****

Number of Meteorological Data Files = 5

Meteorological Data File Names

D:\TRACIP~1\ARCON\PEACHB~1\T2B84A~1.MET
D:\TRACIP~1\ARCON\PEACHB~1\T2B85A~1.MET
D:\TRACIP~1\ARCON\PEACHB~1\T2B86A~1.MET
D:\TRACIP~1\ARCON\PEACHB~1\T2B87A~1.MET
D:\TRACIP~1\ARCON\PEACHB~1\T2B88A~1.MET

[illegible]

Calculation No. PM-1055 Revision 0

Attachment I

Sheet 25 of 35

LOW LIM.	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06
ABOVE RANGE	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
IN RANGE	10164.	12645.	16085.	20803.	24391.	31021.	40989.	41419.	42347.	42100.	
BELOW RANGE	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
ZERO	33058.	30519.	26963.	22017.	18476.	11667.	977.	11.	0.	0.	
TOTAL X/Qs	43222.	43164.	43048.	42820.	42867.	42688.	41966.	41430.	42347.	42100.	
% NON ZERO	23.52	29.30	37.37	48.58	56.90	72.67	97.67	99.97	100.00	100.00	

95th PERCENTILE X/Q VALUES

1.18E-03	1.15E-03	1.07E-03	9.64E-04	7.97E-04	5.88E-04	3.36E-04	2.94E-04	2.49E-04	2.16E-04
----------	----------	----------	----------	----------	----------	----------	----------	----------	----------

95% X/Q for standard averaging intervals

0 to 2 hours	1.18E-03
2 to 8 hours	8.91E-04
8 to 24 hours	4.00E-04
1 to 4 days	2.51E-04
4 to 30 days	1.98E-04

HOURLY VALUE RANGE

	MAX X/Q	MIN X/Q
CENTERLINE	1.70E-03	1.47E-04
SECTOR-AVERAGE	1.07E-03	9.19E-05

NORMAL PROGRAM COMPLETION

X/Q CUMULATIVE FREQUENCY DISTRIBUTIONS

XOQ	1	2	4	8	XOQ	12	24	96	168	360	720
Abv. Lim.	0.	0.	0.	0.	Abv. Lim.	0.	0.	0.	0.	0.	0.
9.120E-03	0.	0.	0.	0.	9.120E-03	0.	0.	0.	0.	0.	0.
8.318E-03	0.	0.	0.	0.	8.318E-03	0.	0.	0.	0.	0.	0.
7.586E-03	0.	0.	0.	0.	7.586E-03	0.	0.	0.	0.	0.	0.
6.918E-03	0.	0.	0.	0.	6.918E-03	0.	0.	0.	0.	0.	0.
6.310E-03	0.	0.	0.	0.	6.310E-03	0.	0.	0.	0.	0.	0.
5.754E-03	0.	0.	0.	0.	5.754E-03	0.	0.	0.	0.	0.	0.
5.248E-03	0.	0.	0.	0.	5.248E-03	0.	0.	0.	0.	0.	0.
4.786E-03	0.	0.	0.	0.	4.786E-03	0.	0.	0.	0.	0.	0.
4.365E-03	0.	0.	0.	0.	4.365E-03	0.	0.	0.	0.	0.	0.
3.981E-03	0.	0.	0.	0.	3.981E-03	0.	0.	0.	0.	0.	0.
3.631E-03	0.	0.	0.	0.	3.631E-03	0.	0.	0.	0.	0.	0.
3.311E-03	0.	0.	0.	0.	3.311E-03	0.	0.	0.	0.	0.	0.
3.020E-03	0.	0.	0.	0.	3.020E-03	0.	0.	0.	0.	0.	0.
2.754E-03	0.	0.	0.	0.	2.754E-03	0.	0.	0.	0.	0.	0.
2.512E-03	0.	0.	0.	0.	2.512E-03	0.	0.	0.	0.	0.	0.
2.291E-03	0.	0.	0.	0.	2.291E-03	0.	0.	0.	0.	0.	0.
2.089E-03	0.	0.	0.	0.	2.089E-03	0.	0.	0.	0.	0.	0.
1.905E-03	0.	0.	0.	0.	1.905E-03	0.	0.	0.	0.	0.	0.
1.738E-03	0.	0.	0.	0.	1.738E-03	0.	0.	0.	0.	0.	0.
1.585E-03	36.	11.	1.	0.	1.585E-03	0.	0.	0.	0.	0.	0.
1.445E-03	171.	82.	22.	0.	1.445E-03	0.	0.	0.	0.	0.	0.
1.318E-03	1168.	649.	326.	109.	1.318E-03	0.	0.	0.	0.	0.	0.
1.202E-03	1838.	1475.	993.	516.	1.202E-03	0.	0.	0.	0.	0.	0.
1.096E-03	3717.	2906.	1963.	1178.	1.096E-03	133.	0.	0.	0.	0.	0.
1.000E-03	4982.	3751.	2754.	1837.	1.000E-03	571.	0.	0.	0.	0.	0.
9.120E-04	5635.	4450.	3527.	2589.	9.120E-04	1131.	30.	0.	0.	0.	0.
8.318E-04	6508.	5042.	4290.	3344.	8.318E-04	1803.	198.	0.	0.	0.	0.
7.586E-04	6947.	5563.	4998.	4128.	7.586E-04	2522.	498.	0.	0.	0.	0.
6.918E-04	7460.	6013.	5603.	4884.	6.918E-04	3304.	975.	35.	0.	0.	0.
6.310E-04	7802.	6738.	6370.	5653.	6.310E-04	4109.	1595.	72.	0.	0.	0.
5.754E-04	8294.	7510.	7118.	6412.	5.754E-04	4876.	2296.	108.	0.	0.	0.
5.248E-04	8563.	8236.	7836.	7218.	5.248E-04	5678.	3076.	163.	0.	0.	0.
4.786E-04	9157.	9062.	8472.	7978.	4.786E-04	6490.	3898.	322.	64.	0.	0.
4.365E-04	9500.	9814.	9101.	8812.	4.365E-04	7347.	4800.	591.	102.	0.	0.
3.981E-04	9692.	10380.	9651.	9629.	3.981E-04	8164.	5720.	948.	284.	0.	0.
3.631E-04	9841.	10879.	10160.	10261.	3.631E-04	8960.	6696.	1472.	691.	0.	0.
3.311E-04	9918.	11247.	10805.	10999.	3.311E-04	9822.	7656.	2198.	1049.	41.	0.
3.020E-04	10014.	11556.	11248.	11686.	3.020E-04	10611.	8605.	3276.	1783.	348.	0.

Calculation No. PM-1055 Revision 0**Attachment I**

Sheet 27 of 35

2.754E-04	10056.	11774.	12004.	12411.	2.754E-04	11411.	9625.	4461.	2727.	1169.	43.
2.512E-04	10102.	11921.	12623.	12986.	2.512E-04	12201.	10650.	6003.	3878.	2000.	407.
2.291E-04	10125.	12369.	13220.	13623.	2.291E-04	12944.	11713.	7544.	5361.	3265.	1317.
2.089E-04	10146.	12491.	13822.	14169.	2.089E-04	13657.	12733.	9409.	7279.	4800.	2573.
1.905E-04	10153.	12531.	14230.	14626.	1.905E-04	14382.	13784.	11158.	9602.	6612.	4714.
1.738E-04	10158.	12562.	14659.	15116.	1.738E-04	15075.	14880.	13055.	11952.	9731.	7680.
1.585E-04	10160.	12581.	15031.	15708.	1.585E-04	15734.	15960.	15328.	14563.	14269.	11559.
1.445E-04	10164.	12602.	15271.	16371.	1.445E-04	16443.	17000.	17399.	16811.	17996.	16033.
1.318E-04	10164.	12613.	15417.	16938.	1.318E-04	17021.	17948.	19702.	19784.	21294.	21548.
1.202E-04	10164.	12625.	15818.	17589.	1.202E-04	17611.	18857.	21698.	22616.	25180.	26220.
1.096E-04	10164.	12639.	15910.	18110.	1.096E-04	18207.	19861.	23885.	25063.	28229.	30190.
1.000E-04	10164.	12641.	15974.	18680.	1.000E-04	18676.	20667.	25410.	27364.	30981.	34388.
9.120E-05	10164.	12642.	15995.	19163.	9.120E-05	19354.	21467.	26792.	29463.	33293.	37661.
8.318E-05	10164.	12644.	16028.	19588.	8.318E-05	19890.	22167.	28347.	31336.	35293.	39145.
7.586E-05	10164.	12645.	16043.	19881.	7.586E-05	20331.	22816.	29781.	32662.	37133.	39940.
6.918E-05	10164.	12645.	16053.	20045.	6.918E-05	21010.	23439.	30910.	33846.	38562.	40499.
6.310E-05	10164.	12645.	16066.	20162.	6.310E-05	21420.	24057.	31867.	34839.	39575.	41085.
5.754E-05	10164.	12645.	16077.	20600.	5.754E-05	21994.	24667.	32809.	35684.	40289.	41313.
5.248E-05	10164.	12645.	16083.	20690.	5.248E-05	22493.	25162.	33653.	36351.	40898.	41511.
4.786E-05	10164.	12645.	16083.	20707.	4.786E-05	22799.	25773.	34510.	37313.	41151.	41937.
4.365E-05	10164.	12645.	16084.	20730.	4.365E-05	23138.	26362.	35355.	37869.	41422.	42035.
3.981E-05	10164.	12645.	16085.	20739.	3.981E-05	23591.	26819.	35871.	38290.	41566.	42048.
3.631E-05	10164.	12645.	16085.	20759.	3.631E-05	23815.	27236.	36288.	38706.	41684.	42100.
3.311E-05	10164.	12645.	16085.	20770.	3.311E-05	23979.	27718.	36655.	39033.	41791.	42100.
3.020E-05	10164.	12645.	16085.	20783.	3.020E-05	24058.	28268.	37193.	39515.	41911.	42100.
2.754E-05	10164.	12645.	16085.	20803.	2.754E-05	24209.	28732.	37530.	39693.	42076.	42100.
2.512E-05	10164.	12645.	16085.	20803.	2.512E-05	24275.	29157.	37843.	39900.	42196.	42100.
2.291E-05	10164.	12645.	16085.	20803.	2.291E-05	24302.	29421.	37999.	40038.	42258.	42100.
2.089E-05	10164.	12645.	16085.	20803.	2.089E-05	24333.	29735.	38256.	40176.	42269.	42100.
1.905E-05	10164.	12645.	16085.	20803.	1.905E-05	24354.	30125.	38570.	40372.	42290.	42100.
1.738E-05	10164.	12645.	16085.	20803.	1.738E-05	24370.	30391.	38733.	40442.	42292.	42100.
1.585E-05	10164.	12645.	16085.	20803.	1.585E-05	24376.	30518.	38926.	40504.	42293.	42100.
1.445E-05	10164.	12645.	16085.	20803.	1.445E-05	24381.	30705.	39157.	40578.	42293.	42100.
1.318E-05	10164.	12645.	16085.	20803.	1.318E-05	24385.	30808.	39391.	40606.	42295.	42100.
1.202E-05	10164.	12645.	16085.	20803.	1.202E-05	24390.	30890.	39579.	40675.	42336.	42100.
1.096E-05	10164.	12645.	16085.	20803.	1.096E-05	24391.	30921.	39747.	40707.	42336.	42100.
1.000E-05	10164.	12645.	16085.	20803.	1.000E-05	24391.	30932.	39813.	40765.	42347.	42100.
9.120E-06	10164.	12645.	16085.	20803.	9.120E-06	24391.	30964.	39913.	40822.	42347.	42100.
8.318E-06	10164.	12645.	16085.	20803.	8.318E-06	24391.	30967.	39992.	40850.	42347.	42100.
7.586E-06	10164.	12645.	16085.	20803.	7.586E-06	24391.	31000.	40118.	40972.	42347.	42100.
6.918E-06	10164.	12645.	16085.	20803.	6.918E-06	24391.	31001.	40306.	41064.	42347.	42100.
6.310E-06	10164.	12645.	16085.	20803.	6.310E-06	24391.	31005.	40436.	41095.	42347.	42100.

Calculation No. PM-1055 Revision 0**Attachment I****Sheet 28 of 35**

5.754E-06	10164.	12645.	16085.	20803.	5.754E-06	24391.	31021.	40497.	41108.	42347.	42100.
5.248E-06	10164.	12645.	16085.	20803.	5.248E-06	24391.	31021.	40631.	41112.	42347.	42100.
4.786E-06	10164.	12645.	16085.	20803.	4.786E-06	24391.	31021.	40698.	41112.	42347.	42100.
4.365E-06	10164.	12645.	16085.	20803.	4.365E-06	24391.	31021.	40846.	41161.	42347.	42100.
3.981E-06	10164.	12645.	16085.	20803.	3.981E-06	24391.	31021.	40849.	41199.	42347.	42100.
3.631E-06	10164.	12645.	16085.	20803.	3.631E-06	24391.	31021.	40849.	41199.	42347.	42100.
3.311E-06	10164.	12645.	16085.	20803.	3.311E-06	24391.	31021.	40922.	41238.	42347.	42100.
3.020E-06	10164.	12645.	16085.	20803.	3.020E-06	24391.	31021.	40928.	41320.	42347.	42100.
2.754E-06	10164.	12645.	16085.	20803.	2.754E-06	24391.	31021.	40929.	41326.	42347.	42100.
2.512E-06	10164.	12645.	16085.	20803.	2.512E-06	24391.	31021.	40930.	41343.	42347.	42100.
2.291E-06	10164.	12645.	16085.	20803.	2.291E-06	24391.	31021.	40931.	41343.	42347.	42100.
2.089E-06	10164.	12645.	16085.	20803.	2.089E-06	24391.	31021.	40947.	41343.	42347.	42100.
1.905E-06	10164.	12645.	16085.	20803.	1.905E-06	24391.	31021.	40989.	41371.	42347.	42100.
1.738E-06	10164.	12645.	16085.	20803.	1.738E-06	24391.	31021.	40989.	41371.	42347.	42100.
1.585E-06	10164.	12645.	16085.	20803.	1.585E-06	24391.	31021.	40989.	41371.	42347.	42100.
1.445E-06	10164.	12645.	16085.	20803.	1.445E-06	24391.	31021.	40989.	41371.	42347.	42100.
1.318E-06	10164.	12645.	16085.	20803.	1.318E-06	24391.	31021.	40989.	41372.	42347.	42100.
1.202E-06	10164.	12645.	16085.	20803.	1.202E-06	24391.	31021.	40989.	41419.	42347.	42100.
1.096E-06	10164.	12645.	16085.	20803.	1.096E-06	24391.	31021.	40989.	41419.	42347.	42100.
1.000E-06	10164.	12645.	16085.	20803.	1.000E-06	24391.	31021.	40989.	41419.	42347.	42100.
Belw. Lim.	0.	0.	0.	0.	Belw. Lim.	0.	0.	0.	0.	0.	0.

ARCON96 Input**Unit 3 Reactor Building Stack to Control Room Intake (Tower 1A 92' and 34' wind, Tower 1A 89'-33' Delta T)**

5

D:\TRACIP~1\ARCON\PEACHB~1\T1AA84~1.MET

D:\TRACIP~1\ARCON\PEACHB~1\T1AA85~1.MET

D:\TRACIP~1\ARCON\PEACHB~1\T1AA86~1.MET

D:\TRACIP~1\ARCON\PEACHB~1\T1AA87~1.MET

D:\TRACIP~1\ARCON\PEACHB~1\T1AA88~1.MET

10.36

28.04

2

2

57.60

2583.60

0.00

0.00

0.00

15 90

58.40

21.00

0.00

3RSCR1A.log

3RSCR1A.cfd

.1

0.22

4.00

1 2 4 8 12 24 96 168 360 720

1 2 4 8 11 22 87 152 324 648

0.00 0.00

n

ARCON96 Output

Unit 3 Reactor Building Stack to Control Room Intake (Tower 1A 92' and 34' wind, Tower 1A 89'-33' Delta T)

Program Title: ARCON96.

Developed For: U.S. Nuclear Regulatory Commission
Office of Nuclear Reactor Regulation
Division of Reactor Program Management

Date: June 25, 1997 11:00 a.m.

NRC Contacts: J. Y. Lee Phone: (301) 415 1080
e-mail: jyl1@nrc.gov
J. J. Hayes Phone: (301) 415 3167
e-mail: jjh@nrc.gov
L. A. Brown Phone: (301) 415 1232
e-mail: lab2@nrc.gov

Code Developer: J. V. Ramsdell Phone: (509) 372 6316
e-mail: j_ramsdell@pnl.gov

Code Documentation: NUREG/CR-6331 Rev. 1

The program was prepared for an agency of the United States Government. Neither the United States Government nor any agency thereof, nor any of their employees, makes any warranty, expressed or implied, or assumes any legal liability or responsibilities for any third party's use, or the results of such use, of any portion of this program or represents that its use by such third party would not infringe privately owned rights.

Program Run 1/9/2003 at 14:43:12

***** ARCON INPUT *****

Number of Meteorological Data Files = 5

Meteorological Data File Names

D:\TRACIP~1\ARCON\PEACHB~1\T1AA84~1.MET
D:\TRACIP~1\ARCON\PEACHB~1\T1AA85~1.MET
D:\TRACIP~1\ARCON\PEACHB~1\T1AA86~1.MET
D:\TRACIP~1\ARCON\PEACHB~1\T1AA87~1.MET

Calculation No. PM-1055 Revision 0**Attachment I****Sheet 31 of 35**

D:\TRACIP~1\ARCON\PEACHB~1\T1AA88~1.MET

Height of lower wind instrument (m) = 10.4

Height of upper wind instrument (m) = 28.0

Wind speeds entered as miles per hour

Vent release

Release height (m) = 57.6

Building Area (m²) = 2583.6

Effluent vertical velocity (m/s) = .00

Vent or stack flow (m³/s) = .00

Vent or stack radius (m) = .00

Direction .. intake to source (deg) = 015

Wind direction sector width (deg) = 90

Wind direction window (deg) = 330 - 060

Distance to intake (m) = 58.4

Intake height (m) = 21.0

Terrain elevation difference (m) = .0

Output file names

3RSCR1A.log

3RSCR1A.cfd

Minimum Wind Speed (m/s) = .2

Surface roughness length (m) = .10

Sector averaging constant = 4.0

Initial value of sigma y = .00

Initial value of sigma z = .00

Expanded output for code testing not selected

Total number of hours of data processed = 43800

Hours of missing data = 464

Hours direction in window = 7064

Hours elevated plume w/ dir. in window = 0

Hours of calm winds = 432

Hours direction not in window or calm = 35840

DISTRIBUTION SUMMARY DATA BY AVERAGING INTERVAL

AVER. PER. 1 2 4 8 12 24 96 168 360 720

Calculation No. PM-1055 Revision 0
Attachment I
Sheet 32 of 35

UPPER LIM.	1.00E-02	1.00E-02	1.00E-02	1.00E-02	1.00E-02	1.00E-02	1.00E-02	1.00E-02	1.00E-02	1.00E-02	1.00E-02
LOW LIM.	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06
ABOVE RANGE	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
IN RANGE	7496.	9643.	12870.	17912.	22214.	30298.	41597.	42453.	42343.	41983.	
BELOW RANGE	0.	0.	0.	0.	0.	0.	34.	0.	0.		
ZERO	35840.	33633.	30287.	25009.	20769.	12404.	959.	51.	0.	0.	
TOTAL X/Qs	43336.	43276.	43157.	42921.	42983.	42702.	42556.	42538.	42343.	41983.	
% NON ZERO	17.30	22.28	29.82	41.73	51.68	70.95	97.75	99.88	100.00	100.00	

95th PERCENTILE X/Q VALUES

1.02E-03	8.16E-04	7.23E-04	6.31E-04	5.16E-04	3.69E-04	2.14E-04	1.81E-04	1.56E-04	1.46E-04
----------	----------	----------	----------	----------	----------	----------	----------	----------	----------

95% X/Q for standard averaging intervals

0 to 2 hours	1.02E-03
2 to 8 hours	5.02E-04
8 to 24 hours	2.38E-04
1 to 4 days	1.62E-04
4 to 30 days	1.36E-04

HOURLY VALUE RANGE

	MAX X/Q	MIN X/Q
CENTERLINE	1.70E-03	9.95E-05
SECTOR-AVERAGE	1.07E-03	6.23E-05

NORMAL PROGRAM COMPLETION

X/Q CUMULATIVE FREQUENCY DISTRIBUTIONS

XOQ	1	2	4	8	XOQ	12	24	96	168	360	720
Abv. Lim.	0.	0.	0.	0.	Abv. Lim.	0.	0.	0.	0.	0.	0.
9.120E-03	0.	0.	0.	0.	9.120E-03	0.	0.	0.	0.	0.	0.
8.318E-03	0.	0.	0.	0.	8.318E-03	0.	0.	0.	0.	0.	0.
7.586E-03	0.	0.	0.	0.	7.586E-03	0.	0.	0.	0.	0.	0.
6.918E-03	0.	0.	0.	0.	6.918E-03	0.	0.	0.	0.	0.	0.
6.310E-03	0.	0.	0.	0.	6.310E-03	0.	0.	0.	0.	0.	0.
5.754E-03	0.	0.	0.	0.	5.754E-03	0.	0.	0.	0.	0.	0.
5.248E-03	0.	0.	0.	0.	5.248E-03	0.	0.	0.	0.	0.	0.
4.786E-03	0.	0.	0.	0.	4.786E-03	0.	0.	0.	0.	0.	0.
4.365E-03	0.	0.	0.	0.	4.365E-03	0.	0.	0.	0.	0.	0.
3.981E-03	0.	0.	0.	0.	3.981E-03	0.	0.	0.	0.	0.	0.
3.631E-03	0.	0.	0.	0.	3.631E-03	0.	0.	0.	0.	0.	0.
3.311E-03	0.	0.	0.	0.	3.311E-03	0.	0.	0.	0.	0.	0.
3.020E-03	0.	0.	0.	0.	3.020E-03	0.	0.	0.	0.	0.	0.
2.754E-03	0.	0.	0.	0.	2.754E-03	0.	0.	0.	0.	0.	0.
2.512E-03	0.	0.	0.	0.	2.512E-03	0.	0.	0.	0.	0.	0.
2.291E-03	0.	0.	0.	0.	2.291E-03	0.	0.	0.	0.	0.	0.
2.089E-03	0.	0.	0.	0.	2.089E-03	0.	0.	0.	0.	0.	0.
1.905E-03	0.	0.	0.	0.	1.905E-03	0.	0.	0.	0.	0.	0.
1.738E-03	0.	0.	0.	0.	1.738E-03	0.	0.	0.	0.	0.	0.
1.585E-03	39.	11.	0.	0.	1.585E-03	0.	0.	0.	0.	0.	0.
1.445E-03	164.	71.	19.	2.	1.445E-03	0.	0.	0.	0.	0.	0.
1.318E-03	529.	240.	80.	8.	1.318E-03	0.	0.	0.	0.	0.	0.
1.202E-03	758.	515.	257.	87.	1.202E-03	0.	0.	0.	0.	0.	0.
1.096E-03	1820.	1115.	622.	300.	1.096E-03	7.	0.	0.	0.	0.	0.
1.000E-03	2253.	1461.	928.	507.	1.000E-03	103.	0.	0.	0.	0.	0.
9.120E-04	2530.	1791.	1255.	789.	9.120E-04	241.	0.	0.	0.	0.	0.
8.318E-04	2970.	2090.	1593.	1095.	8.318E-04	437.	30.	0.	0.	0.	0.
7.586E-04	3421.	2442.	1987.	1435.	7.586E-04	693.	75.	0.	0.	0.	0.
6.918E-04	3732.	2672.	2308.	1785.	6.918E-04	1003.	152.	0.	0.	0.	0.
6.310E-04	3931.	3153.	2702.	2148.	6.310E-04	1343.	283.	0.	0.	0.	0.
5.754E-04	4040.	3725.	3160.	2505.	5.754E-04	1684.	473.	19.	0.	0.	0.
5.248E-04	4127.	4141.	3610.	2963.	5.248E-04	2073.	696.	59.	0.	0.	0.
4.786E-04	4915.	4804.	4099.	3448.	4.786E-04	2494.	984.	102.	0.	0.	0.
4.365E-04	5379.	5297.	4538.	4019.	4.365E-04	2934.	1335.	148.	0.	0.	0.
3.981E-04	5730.	5923.	5007.	4594.	3.981E-04	3386.	1733.	187.	7.	0.	0.
3.631E-04	6037.	6403.	5634.	5221.	3.631E-04	3945.	2223.	300.	92.	0.	0.
3.311E-04	6291.	6823.	6319.	5798.	3.311E-04	4562.	2784.	413.	182.	0.	0.
3.020E-04	6597.	7194.	6869.	6549.	3.020E-04	5231.	3428.	520.	341.	0.	0.

Calculation No. PM-1055 Revision 0**Attachment I****Sheet 34 of 35**

2.754E-04	6858.	7497.	7680.	7203.	2.754E-04	5920.	4051.	731.	504.	0.	0.
2.512E-04	7093.	7733.	8196.	7869.	2.512E-04	6614.	4728.	1146.	610.	78.	0.
2.291E-04	7245.	8716.	9039.	8539.	2.291E-04	7256.	5446.	1583.	759.	307.	0.
2.089E-04	7354.	8984.	9510.	9106.	2.089E-04	8071.	6223.	2291.	1121.	503.	0.
1.905E-04	7416.	9092.	9959.	9635.	1.905E-04	8780.	7038.	3092.	1716.	951.	14.
1.738E-04	7452.	9186.	10376.	10327.	1.738E-04	9552.	7923.	4054.	2408.	1402.	233.
1.585E-04	7474.	9270.	10689.	11089.	1.585E-04	10336.	8838.	5318.	3365.	1988.	1055.
1.445E-04	7489.	9361.	10898.	11817.	1.445E-04	11052.	9805.	6865.	4863.	2610.	2243.
1.318E-04	7490.	9439.	11055.	12376.	1.318E-04	11703.	10798.	8549.	6560.	3642.	3407.
1.202E-04	7491.	9502.	11860.	13229.	1.202E-04	12394.	11667.	10173.	8625.	5731.	4155.
1.096E-04	7493.	9565.	12273.	13785.	1.096E-04	13269.	12695.	11820.	10478.	8023.	5483.
1.000E-04	7495.	9591.	12391.	14388.	1.000E-04	13882.	13735.	13410.	12722.	10743.	7558.
9.120E-05	7496.	9616.	12470.	14811.	9.120E-05	14611.	14842.	15129.	15125.	13422.	10767.
8.318E-05	7496.	9634.	12530.	15222.	8.318E-05	15205.	15869.	16617.	17115.	16659.	14787.
7.586E-05	7496.	9639.	12608.	15548.	7.586E-05	16033.	16874.	18661.	19404.	20205.	19257.
6.918E-05	7496.	9640.	12664.	15781.	6.918E-05	16672.	17785.	20370.	21757.	23462.	25155.
6.310E-05	7496.	9640.	12717.	15931.	6.310E-05	17233.	18725.	22092.	24357.	26134.	30292.
5.754E-05	7496.	9640.	12761.	17050.	5.754E-05	17953.	19675.	23559.	26312.	29017.	33102.
5.248E-05	7496.	9643.	12805.	17393.	5.248E-05	18418.	20708.	25125.	27892.	31783.	35612.
4.786E-05	7496.	9643.	12832.	17477.	4.786E-05	18803.	21584.	26772.	29495.	33953.	37460.
4.365E-05	7496.	9643.	12851.	17548.	4.365E-05	19119.	22303.	28097.	31083.	36280.	38646.
3.981E-05	7496.	9643.	12869.	17608.	3.981E-05	20014.	22961.	29575.	32353.	37756.	40051.
3.631E-05	7496.	9643.	12869.	17655.	3.631E-05	20614.	23581.	31193.	33724.	38603.	41010.
3.311E-05	7496.	9643.	12869.	17710.	3.311E-05	20901.	24423.	32259.	35002.	39320.	41381.
3.020E-05	7496.	9643.	12869.	17776.	3.020E-05	21053.	25070.	33250.	36280.	39998.	41447.
2.754E-05	7496.	9643.	12869.	17832.	2.754E-05	21374.	25732.	34081.	37305.	40601.	41552.
2.512E-05	7496.	9643.	12870.	17851.	2.512E-05	21550.	26230.	35075.	38029.	40958.	41598.
2.291E-05	7496.	9643.	12870.	17884.	2.291E-05	21797.	26669.	35781.	39014.	41277.	41681.
2.089E-05	7496.	9643.	12870.	17909.	2.089E-05	21908.	27123.	36472.	39703.	41495.	41903.
1.905E-05	7496.	9643.	12870.	17911.	1.905E-05	21953.	27830.	37133.	40164.	41749.	41936.
1.738E-05	7496.	9643.	12870.	17911.	1.738E-05	21998.	28231.	37664.	40559.	41957.	41971.
1.585E-05	7496.	9643.	12870.	17911.	1.585E-05	22045.	28552.	38092.	40869.	42120.	41983.
1.445E-05	7496.	9643.	12870.	17911.	1.445E-05	22083.	29088.	38427.	41176.	42147.	41983.
1.318E-05	7496.	9643.	12870.	17912.	1.318E-05	22122.	29264.	39036.	41437.	42298.	41983.
1.202E-05	7496.	9643.	12870.	17912.	1.202E-05	22149.	29641.	39308.	41517.	42312.	41983.
1.096E-05	7496.	9643.	12870.	17912.	1.096E-05	22171.	29941.	39634.	41616.	42318.	41983.
1.000E-05	7496.	9643.	12870.	17912.	1.000E-05	22187.	29996.	39713.	41729.	42320.	41983.
9.120E-06	7496.	9643.	12870.	17912.	9.120E-06	22199.	30047.	39965.	41881.	42323.	41983.
8.318E-06	7496.	9643.	12870.	17912.	8.318E-06	22213.	30070.	40171.	41940.	42324.	41983.
7.586E-06	7496.	9643.	12870.	17912.	7.586E-06	22213.	30116.	40357.	42175.	42343.	41983.
6.918E-06	7496.	9643.	12870.	17912.	6.918E-06	22213.	30139.	40587.	42195.	42343.	41983.
6.310E-06	7496.	9643.	12870.	17912.	6.310E-06	22213.	30206.	40715.	42216.	42343.	41983.

Calculation No. PM-1055 Revision 0**Attachment I****Sheet 35 of 35**

5.754E-06	7496.	9643.	12870.	17912.	5.754E-06	22213.	30247.	40972.	42245.	42343.	41983.
5.248E-06	7496.	9643.	12870.	17912.	5.248E-06	22214.	30257.	41117.	42253.	42343.	41983.
4.786E-06	7496.	9643.	12870.	17912.	4.786E-06	22214.	30282.	41169.	42323.	42343.	41983.
4.365E-06	7496.	9643.	12870.	17912.	4.365E-06	22214.	30295.	41255.	42329.	42343.	41983.
3.981E-06	7496.	9643.	12870.	17912.	3.981E-06	22214.	30297.	41264.	42346.	42343.	41983.
3.631E-06	7496.	9643.	12870.	17912.	3.631E-06	22214.	30297.	41294.	42355.	42343.	41983.
3.311E-06	7496.	9643.	12870.	17912.	3.311E-06	22214.	30297.	41295.	42449.	42343.	41983.
3.020E-06	7496.	9643.	12870.	17912.	3.020E-06	22214.	30297.	41381.	42449.	42343.	41983.
2.754E-06	7496.	9643.	12870.	17912.	2.754E-06	22214.	30298.	41462.	42449.	42343.	41983.
2.512E-06	7496.	9643.	12870.	17912.	2.512E-06	22214.	30298.	41471.	42450.	42343.	41983.
2.291E-06	7496.	9643.	12870.	17912.	2.291E-06	22214.	30298.	41501.	42451.	42343.	41983.
2.089E-06	7496.	9643.	12870.	17912.	2.089E-06	22214.	30298.	41501.	42451.	42343.	41983.
1.905E-06	7496.	9643.	12870.	17912.	1.905E-06	22214.	30298.	41505.	42451.	42343.	41983.
1.738E-06	7496.	9643.	12870.	17912.	1.738E-06	22214.	30298.	41505.	42453.	42343.	41983.
1.585E-06	7496.	9643.	12870.	17912.	1.585E-06	22214.	30298.	41526.	42453.	42343.	41983.
1.445E-06	7496.	9643.	12870.	17912.	1.445E-06	22214.	30298.	41580.	42453.	42343.	41983.
1.318E-06	7496.	9643.	12870.	17912.	1.318E-06	22214.	30298.	41580.	42453.	42343.	41983.
1.202E-06	7496.	9643.	12870.	17912.	1.202E-06	22214.	30298.	41580.	42453.	42343.	41983.
1.096E-06	7496.	9643.	12870.	17912.	1.096E-06	22214.	30298.	41597.	42453.	42343.	41983.
1.000E-06	7496.	9643.	12870.	17912.	1.000E-06	22214.	30298.	41597.	42453.	42343.	41983.
Belw. Lim.	0.	0.	0.	0.	Belw. Lim.	0.	0.	34.	0.	0.	

PAVAN Input**Off Gas Stack to Control Room (Tower 2 320' wind and 316'-33' Delta T Stability Class; distances of 209 m and 280 m)**

1 1111

Peach Bottom

Stack Release

97.5 meters

10.1-96.3 meters

Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

7	1															
2584.	54.31	131.4	97.5													
0	0	0	2	6	5	0										
0.	0.	0.	0.	3.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
6.	9.	23.	39.	87.	44.	4.	2.	0.	2.	2.	0.	1.	0.	0.	0.	1.
0.	9.	20.	29.	46.	44.	20.	2.	12.	7.	5.	7.	8.	9.	2.	8.	
2.	4.	9.	18.	7.	3.	13.	0.	7.	3.	2.	3.	21.	9.	3.	15.	
2.	2.	0.	1.	0.	1.	0.	0.	0.	0.	0.	2.	14.	2.	0.	1.	
0.	0.	0.	0.	0.	1.	0.	0.	0.	0.	0.	2.	2.	5.	1.	1.	
0.	2.	2.	9.	5.	0.	2.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
13.	23.	18.	25.	56.	29.	10.	3.	3.	4.	3.	1.	4.	3.	4.	3.	
4.	15.	13.	15.	12.	25.	27.	8.	25.	14.	13.	8.	21.	9.	2.	22.	
10.	3.	2.	1.	1.	2.	8.	8.	31.	9.	6.	19.	27.	20.	9.	33.	
1.	2.	1.	0.	0.	1.	1.	1.	5.	2.	1.	2.	12.	14.	4.	5.	
0.	0.	0.	0.	0.	0.	0.	0.	1.	0.	0.	1.	6.	7.	0.	0.	
0.	5.	12.	15.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
31.	22.	28.	37.	50.	65.	14.	12.	19.	5.	7.	3.	5.	5.	3.	22.	
42.	19.	9.	17.	14.	26.	62.	22.	72.	37.	30.	26.	42.	26.	26.	100.	
18.	8.	4.	3.	3.	4.	11.	10.	67.	24.	21.	31.	56.	59.	35.	93.	
4.	1.	0.	0.	1.	2.	0.	1.	9.	0.	4.	4.	29.	30.	28.	17.	
1.	4.	0.	0.	0.	0.	0.	0.	1.	0.	1.	1.	13.	27.	6.	0.	
59.	58.	108.	119.	115.	86.	45.	35.	41.	23.	32.	15.	26.	38.	36.	50.	
330.	211.	238.	336.	435.	304.	339.	243.	300.	191.	155.	128.	141.	97.	193.	385.	
521.	349.	251.	278.	331.	308.	478.	466.	708.	425.	287.	211.	301.	355.	542.	928.	
396.	154.	85.	67.	132.	140.	161.	118.	482.	166.	126.	190.	395.	674.	1039.	918.	
73.	27.	13.	11.	32.	26.	14.	11.	99.	16.	16.	22.	225.	448.	543.	242.	
15.	7.	12.	2.	8.	2.	7.	7.	29.	9.	3.	6.	90.	151.	184.	63.	
60.	44.	36.	61.	60.	60.	61.	59.	70.	56.	59.	54.	54.	36.	39.	34.	
235.	164.	150.	219.	283.	200.	345.	311.	435.	320.	281.	187.	173.	138.	170.	203.	
367.	201.	156.	101.	161.	257.	349.	443.	891.	577.	354.	297.	395.	354.	519.	514.	
156.	38.	26.	11.	58.	63.	98.	165.	516.	228.	216.	271.	536.	583.	651.	468.	
23.	8.	8.	4.	12.	21.	16.	11.	64.	19.	18.	30.	78.	111.	89.	43.	
7.	1.	1.	1.	20.	4.	12.	2.	6.	4.	2.	1.	9.	12.	6.	10.	
26.	19.	22.	26.	31.	23.	28.	32.	23.	32.	32.	33.	30.	28.	26.	22.	
99.	38.	34.	29.	34.	52.	81.	90.	134.	141.	156.	117.	85.	66.	94.	97.	
81.	25.	13.	8.	13.	24.	48.	79.	130.	111.	157.	177.	198.	140.	178.	126.	
4.	1.	1.	0.	0.	2.	7.	8.	44.	23.	39.	109.	168.	138.	90.	32.	
1.	0.	0.	0.	0.	0.	0.	0.	0.	3.	0.	18.	24.	18.	0.	5.	
0.	0.	0.	0.	4.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
11.	14.	11.	10.	13.	5.	4.	9.	17.	9.	6.	18.	13.	14.	13.	19.	
47.	19.	22.	19.	13.	6.	28.	10.	34.	31.	36.	34.	40.	35.	70.	59.	
16.	5.	4.	2.	2.	2.	8.	6.	10.	21.	51.	70.	69.	44.	92.	85.	
1.	0.	0.	0.	0.	0.	1.	1.	2.	1.	8.	26.	39.	39.	9.	5.	

[illegible]

```

2.    0.    0.
0.    0.    1.

209.0209.0209.
280 0280.0280.
  1.   1.   1.
  1.   1.   1.
500.0500.0500.
000.0000.0000.

```

PAVAN Output**Off Gas Stack to Control Room (Tower 2 320' wind and 316'-33' Delta T Stability Class; distances of 209 m and 280 m)**

Copyright (c) 1990 Ergo Computing, Inc. for Lahey

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

RUN DATE: 12/29/02

PRINTOUT OF INPUT CARDS

```

1      00010 01111 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 2      Peach Bottom
Stack Release
3      97.5 meters          10.1-96.3 meters
4
5      Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T          6          7 42872          1
7      0.500 2584.000      54.300 131.400 97.500
8      0.000 0.000 0.000 2.000 6.000 5.000 0.000
9      0.000 0.000 0.000 0.000 3.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
9      6.000 9.000 23.000 39.000 87.000 44.000 4.000 2.000 0.000 2.000 2.000 0.000 1.000 0.000 0.000 1.000
9      0.000 9.000 20.000 29.000 46.000 44.000 20.000 2.000 12.000 7.000 5.000 7.000 8.000 9.000 2.000 8.000
9      2.000 4.000 9.000 18.000 7.000 3.000 13.000 0.000 7.000 3.000 2.000 3.000 21.000 9.000 3.000 15.000
9      2.000 2.000 0.000 1.000 0.000 1.000 0.000 0.000 0.000 0.000 0.000 0.000 2.000 14.000 2.000 0.000 1.000
9      0.000 0.000 0.000 0.000 0.000 1.000 0.000 0.000 0.000 0.000 0.000 0.000 2.000 2.000 5.000 1.000 1.000
9      0.000 2.000 2.000 9.000 5.000 0.000 2.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
9      13.000 23.000 18.000 25.000 56.000 29.000 10.000 3.000 3.000 4.000 3.000 1.000 4.000 3.000 4.000 3.000
9      4.000 15.000 13.000 15.000 12.000 25.000 27.000 8.000 25.000 14.000 13.000 8.000 21.000 9.000 2.000 22.000
9      10.000 3.000 2.000 1.000 1.000 2.000 8.000 8.000 31.000 9.000 6.000 19.000 27.000 20.000 9.000 33.000
9      1.000 2.000 1.000 0.000 0.000 1.000 1.000 1.000 5.000 2.000 1.000 2.000 12.000 14.000 4.000 5.000
9      0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 1.000 0.000 0.000 1.000 6.000 7.000 0.000 0.000
9      0.000 5.000 12.000 15.000 1.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
9      31.000 22.000 28.000 37.000 50.000 65.000 14.000 12.000 19.000 5.000 7.000 3.000 5.000 5.000 3.000 22.000
9      42.000 19.000 9.000 17.000 14.000 26.000 62.000 22.000 72.000 37.000 30.000 26.000 42.000 26.000 26.000 100.000
9      18.000 8.000 4.000 3.000 3.000 4.000 11.000 10.000 67.000 24.000 21.000 31.000 56.000 59.000 35.000 93.000
9      4.000 1.000 0.000 0.000 1.000 2.000 0.000 1.000 9.000 0.000 4.000 4.000 29.000 30.000 28.000 17.000
9      1.000 4.000 0.000 0.000 0.000 0.000 0.000 0.000 1.000 0.000 1.000 1.000 13.000 27.000 6.000 0.000
9      59.000 58.000 108.000 119.000 115.000 86.000 45.000 35.000 41.000 23.000 32.000 15.000 26.000 38.000 36.000 50.000
9      330.000 211.000 238.000 336.000 435.000 304.000 339.000 243.000 300.000 191.000 155.000 128.000 141.000 97.000 193.000 385.000
9      521.000 349.000 251.000 278.000 331.000 308.000 478.000 466.000 708.000 425.000 287.000 211.000 301.000 355.000 542.000 928.000
9      396.000 154.000 85.000 67.000 132.000 140.000 161.000 118.000 482.000 166.000 126.000 190.000 395.000 674.000 *****918.000
9      73.000 27.000 13.000 11.000 32.000 26.000 14.000 11.000 99.000 16.000 16.000 22.000 225.000 448.000 543.000 242.000
9      15.000 7.000 12.000 2.000 8.000 2.000 7.000 7.000 29.000 9.000 3.000 6.000 90.000 151.000 184.000 63.000
9      60.000 44.000 36.000 61.000 60.000 60.000 61.000 59.000 70.000 56.000 59.000 54.000 54.000 36.000 39.000 34.000
9      235.000 164.000 150.000 219.000 283.000 200.000 345.000 311.000 435.000 320.000 281.000 187.000 173.000 138.000 170.000 203.000
9      367.000 201.000 156.000 101.000 161.000 257.000 349.000 443.000 891.000 577.000 354.000 297.000 395.000 354.000 519.000 514.000
9      156.000 38.000 26.000 11.000 58.000 63.000 98.000 165.000 516.000 228.000 216.000 271.000 536.000 583.000 651.000 468.000
9      23.000 8.000 8.000 4.000 12.000 21.000 16.000 11.000 64.000 19.000 18.000 30.000 78.000 111.000 89.000 43.000
9      7.000 1.000 1.000 1.000 20.000 4.000 12.000 2.000 6.000 4.000 2.000 1.000 9.000 12.000 6.000 10.000
9      26.000 19.000 22.000 26.000 31.000 23.000 28.000 32.000 23.000 32.000 32.000 33.000 30.000 28.000 26.000 22.000
9      99.000 38.000 34.000 29.000 34.000 52.000 81.000 90.000 134.000 141.000 156.000 117.000 85.000 66.000 94.000 97.000
9      81.000 25.000 13.000 8.000 13.000 24.000 48.000 79.000 130.000 111.000 157.000 177.000 198.000 140.000 178.000 126.000

```

Calculation No. PM-1055 Revision 0

Attachment J

Page 4 of 1411.

[illegible]

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 5 of 1411

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1 96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION

ATMOSPHERIC STABILITY CLASS A

WIND SPEED (M/S)

TOWER RELEASE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
0.22 0.24	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.56 1.69	0.000	0.000	0.000	0.000	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.007
3.35 3.61	0.014	0.021	0.054	0.091	0.203	0.103	0.009	0.005	0.000	0.005	0.005	0.000	0.002	0.000	0.000	0.002	0.513
5.59 6.02	0.000	0.021	0.047	0.068	0.107	0.103	0.047	0.005	0.028	0.016	0.012	0.016	0.019	0.021	0.005	0.019	0.532
8.27 8.91	0.005	0.009	0.021	0.042	0.016	0.007	0.030	0.000	0.016	0.007	0.005	0.007	0.049	0.021	0.007	0.035	0.278
10.73 11.56	0.005	0.005	0.000	0.002	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.005	0.033	0.005	0.000	0.002	0.058
24.59 26.49	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.005	0.005	0.012	0.002	0.002	0.028
TOTAL	0.02	0.06	0.12	0.20	0.33	0.22	0.09	0.01	0.04	0.03	0.02	0.03	0.11	0.06	0.01	0.06	1.42

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION

ATMOSPHERIC STABILITY CLASS B

WIND SPEED (M/S)

TOWER RELEASE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
0.22 0.24	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.56 1.69	0.000	0.005	0.005	0.021	0.012	0.000	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.047
3.35 3.61	0.030	0.054	0.042	0.058	0.131	0.068	0.023	0.007	0.007	0.009	0.007	0.002	0.009	0.007	0.009	0.007	0.471
5.59 6.02	0.009	0.035	0.030	0.035	0.028	0.058	0.063	0.019	0.058	0.033	0.030	0.019	0.049	0.021	0.005	0.051	0.543
8.27 8.91	0.023	0.007	0.005	0.002	0.002	0.005	0.019	0.019	0.072	0.021	0.014	0.044	0.063	0.047	0.021	0.077	0.441
10.73 11.56	0.002	0.005	0.002	0.000	0.000	0.002	0.002	0.002	0.012	0.005	0.002	0.005	0.028	0.033	0.009	0.012	0.121
24.59 26.49	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.002	0.014	0.016	0.000	0.000	0.035
TOTAL	0.07	0.10	0.08	0.12	0.17	0.13	0.11	0.05	0.15	0.07	0.05	0.07	0.16	0.12	0.04	0.15	1.66

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION

ATMOSPHERIC STABILITY CLASS C

WIND SPEED (M/S)

TOWER RELEASE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
0.22 0.24	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.56 1.69	0.000	0.012	0.028	0.035	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.077
3.35 3.61	0.072	0.051	0.065	0.086	0.117	0.152	0.033	0.028	0.044	0.012	0.016	0.007	0.012	0.012	0.007	0.051	0.765
5.59 6.02	0.098	0.044	0.021	0.040	0.033	0.061	0.145	0.051	0.168	0.086	0.070	0.061	0.098	0.061	0.061	0.233	1.330
8.27 8.91	0.042	0.019	0.009	0.007	0.007	0.009	0.026	0.023	0.156	0.056	0.049	0.072	0.131	0.138	0.082	0.217	1.043
10.73 11.56	0.009	0.002	0.000	0.000	0.002	0.005	0.000	0.002	0.021	0.000	0.009	0.009	0.068	0.070	0.065	0.040	0.303
24.59 26.49	0.002	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.002	0.002	0.030	0.063	0.014	0.000	0.126
TOTAL	0.22	0.14	0.12	0.17	0.16	0.23	0.20	0.10	0.39	0.15	0.15	0.15	0.34	0.34	0.23	0.54	3.64

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION

ATMOSPHERIC STABILITY CLASS D

WIND SPEED (M/S)

TOWER RELEASE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
0.22 0.24	0.000	0.000	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.005
1.56 1.69	0.138	0.135	0.252	0.278	0.268	0.201	0.105	0.082	0.096	0.054	0.075	0.035	0.061	0.089	0.084	0.117	2.067

Calculation No. PM-1055 Revision 0

Attachment J

Page 6 of 1411

3.35	3.61	0.770	0.492	0.555	0.784	1.015	0.709	0.791	0.567	0.700	0.446	0.362	0.299	0.329	0.226	0.450	0.898	9.391
5.59	6.02	1.215	0.814	0.585	0.648	0.772	0.718	1.115	1.087	1.651	0.991	0.669	0.492	0.702	0.828	1.264	2.165	15.719
8.27	8.91	0.924	0.359	0.198	0.156	0.308	0.327	0.376	0.275	1.124	0.387	0.294	0.443	0.921	1.572	2.423	2.141	12.229
10.73	11.56	0.170	0.063	0.030	0.026	0.075	0.061	0.033	0.026	0.231	0.037	0.037	0.051	0.525	1.045	1.267	0.564	4.241
24.59	26.49	0.035	0.016	0.028	0.005	0.019	0.005	0.016	0.016	0.068	0.021	0.007	0.014	0.210	0.352	0.429	0.147	1.388
TOTAL		3.25	1.88	1.65	1.90	2.46	2.02	2.44	2.05	3.87	1.94	1.44	1.33	2.75	4.11	5.92	6.03	45.04

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION WIND SPEED (M/S)

ATMOSPHERIC STABILITY CLASS E

TOWER RELEASE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
0.22 0.26	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.014
1.56 1.82	0.140	0.103	0.084	0.142	0.140	0.140	0.142	0.138	0.163	0.131	0.138	0.126	0.126	0.084	0.091	0.079	1.966
3.35 3.89	0.548	0.383	0.350	0.511	0.660	0.467	0.805	0.725	1.015	0.746	0.655	0.436	0.404	0.322	0.397	0.474	8.896
5.59 6.49	0.856	0.469	0.364	0.236	0.376	0.599	0.814	1.033	2.078	1.346	0.826	0.693	0.921	0.826	1.211	1.199	13.846
8.27 9.60	0.364	0.089	0.061	0.026	0.135	0.147	0.229	0.385	1.204	0.532	0.504	0.632	1.250	1.360	1.518	1.092	9.526
10.73 12.46	0.054	0.019	0.019	0.009	0.028	0.049	0.037	0.026	0.149	0.044	0.042	0.070	0.182	0.259	0.208	0.100	1.295
24.59 28.54	0.016	0.002	0.002	0.002	0.047	0.009	0.028	0.005	0.014	0.009	0.005	0.002	0.021	0.028	0.014	0.023	0.229
TOTAL	1.98	1.06	0.88	0.93	1.39	1.41	2.06	2.31	4.62	2.81	2.17	1.96	2.90	2.88	3.44	2.97	35.77

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION WIND SPEED (M/S)

ATMOSPHERIC STABILITY CLASS F

TOWER RELEASE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
0.22 0.26	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.012
1.56 1.82	0.061	0.044	0.051	0.061	0.072	0.054	0.065	0.075	0.054	0.075	0.075	0.077	0.070	0.065	0.061	0.051	1.010
3.35 3.89	0.231	0.089	0.079	0.068	0.079	0.121	0.189	0.210	0.313	0.329	0.364	0.273	0.198	0.154	0.219	0.226	3.142
5.59 6.49	0.189	0.058	0.030	0.019	0.030	0.056	0.112	0.184	0.303	0.259	0.366	0.413	0.462	0.327	0.415	0.294	3.517
8.27 9.60	0.009	0.002	0.002	0.000	0.000	0.005	0.016	0.019	0.103	0.054	0.091	0.254	0.392	0.322	0.210	0.075	1.553
10.73 12.46	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.007	0.000	0.042	0.056	0.042	0.000	0.012	0.161
24.59 28.54	0.000	0.000	0.000	0.000	0.009	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.012
TOTAL	0.49	0.19	0.16	0.15	0.19	0.24	0.38	0.49	0.77	0.72	0.90	1.06	1.18	0.91	0.91	0.66	9.41

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION WIND SPEED (M/S)

ATMOSPHERIC STABILITY CLASS G

TOWER RELEASE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
0.22 0.26	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.56 1.82	0.026	0.033	0.026	0.023	0.030	0.012	0.009	0.021	0.040	0.021	0.014	0.042	0.030	0.033	0.030	0.044	0.434
3.35 3.89	0.110	0.044	0.051	0.044	0.030	0.014	0.065	0.023	0.079	0.072	0.084	0.079	0.093	0.082	0.163	0.138	1.173
5.59 6.49	0.037	0.012	0.009	0.005	0.005	0.005	0.019	0.014	0.023	0.049	0.119	0.163	0.161	0.103	0.215	0.198	1.136
8.27 9.60	0.002	0.000	0.000	0.000	0.000	0.000	0.002	0.002	0.005	0.002	0.019	0.061	0.091	0.091	0.021	0.012	0.308
10.73 12.46	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.002	0.005	0.000	0.000	0.009
24.59 28.54	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.002	0.005
TOTAL	0.17	0.09	0.09	0.07	0.07	0.03	0.10	0.06	0.15	0.14	0.24	0.35	0.38	0.31	0.43	0.39	3.06

WIND MEASURED AT 97.5 METERS.

WIND SPEED CORRECTED TO THE RELEASE HEIGHT OF 131.4 METERS.

OVERALL WIND DIRECTION FREQUENCY

WIND DIRECTION:	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
FREQUENCY:	6.2	3.5	3.1	3.5	4.8	4.3	5.4	5.1	10.0	5.9	5.0	5.0	7.8	8.7	11.0	10.8

OVERALL WIND SPEED FREQUENCY AS MEASURED ON THE TOWER:

MAX.WIND SPEED (M/S):	0.224	1.565	3.353	5.588	8.270	10.729	24.587
WIND SPEED FREQUENCY:	0.03	5.61	24.35	36.62	25.38	6.19	1.82

BUILDING AND RELEASE CHARACTERISTICS:

RELEASE HEIGHT:	131.40 METERS
MIXING VOLUME COEFFICIENT:	0.50
BUILDING CROSS-SECTIONAL AREA:	2584.00 SQUARE METERS

BOUNDARY DISTANCES (METERS) FROM THE SOURCE FOR EACH DOWNWIND SECTOR:

DOWNWIND SECTOR	S	SSW	SW	WSW	W	WNW	NW	NNW	N	NNE	NE	ENE	E	ESE	SE	SSE
BOUNDARY 1	209.	209.	209.	209.	209.	209.	209.	209.	209.	209.	209.	209.	209.	209.	209.	209.
BOUNDARY 2	280.	280.	280.	280.	280.	280.	280.	280.	280.	280.	280.	280.	280.	280.	280.	280.

DISTANCES AND TERRAIN HEIGHTS (IN METERS) AS A FUNCTION OF THE DOWNWIND SECTOR:

SECTOR	S	SSW	SW	WSW	W	WNW	NW	NNW	N	NNE	NE	ENE	E	ESE	SE	SSE
DISTANCE	500.	500.	500.	500.	500.	500.	500.	500.	500.	500.	500.	500.	500.	500.	500.	500.
ELEVATION	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

THE CONVERSION FACTOR APPLIED TO THE WIND SPEED CLASSES IS 0.447

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 8 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

WINDSPEEDS ADJUSTED TO 131.4 METERS.

PERCENT OF THE TIME A GIVEN WINDSPEED IS LOWER:

WINDSPEED (METER/SEC)	CUMULATIVE FREQUENCY (PERCENT)
0.24	0.00
0.26	0.03
1.69	2.23
1.82	5.64
3.61	16.78
3.89	29.99
6.02	48.11
6.49	66.61
8.91	80.60
9.60	91.99
11.56	96.71
12.46	98.18
26.49	99.76
28.54	100.00

WINDSPEED (INTERPOLATED) (METER/SEC)	CUMULATIVE FREQUENCY (PERCENT)
0.26	0.03
1.77	5.64
3.76	29.99
6.26	66.61
9.22	91.99
11.77	98.18
26.77	100.00

LOG-NORMAL INTERPOLATION PERCENTILES

WINDSPEED (METER/SEC)	CUMULATIVE FREQUENCY (PERCENT)
0.81	1.00
1.30	3.00
1.66	5.00
2.19	10.00
2.61	15.00
3.00	20.00

3.38	25.00
3.76	30.00
4.05	35.00
4.35	40.00
4.66	45.00
4.98	50.00
5.32	55.00
5.70	60.00
6.11	65.00
6.50	70.00
6.90	75.00
7.37	80.00
8.11	85.00
8.78	90.00

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 10 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE S SECTOR.

STABILITY CLASS	WINDSPEED METER/SEC	FREQUENCY PERCENT	DISTANCE METERS	TERRAIN METERS	HT EFF METERS	PLUME HT METERS	SIGMA-Y METERS	SIGMA-Z METERS	MEANDER-SY METERS	CHI/Q VALUES (SEC/CUBIC METER)	BLDG WAKE USED
										MEANDER	CA=1292.SQ.METERS
A	3.6	0.23	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	4.045E-06
A	8.9	0.08	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	1.640E-06
A	11.6	0.08	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	1.264E-06
B	3.6	0.49	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	2.858E-06
B	6.0	0.15	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.715E-06
B	8.9	0.38	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.159E-06
B	11.6	0.04	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	8.931E-07
C	3.6	1.16	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06
C	6.0	1.58	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06
C	8.9	0.68	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07
C	11.6	0.15	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	6.230E-07
C	26.5	0.04	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	2.719E-07
D	0.2	0.01	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05
D	1.7	2.22	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06
D	3.6	12.39	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06
D	6.0	19.57	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07
D	8.9	14.87	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07
D	11.6	2.74	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07
D	26.5	0.56	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07
E	0.3	0.02	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06
E	1.8	2.25	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06
E	3.9	8.83	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07
E	6.5	13.78	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07
E	9.6	5.86	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07
E	12.5	0.86	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07
E	28.5	0.26	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08
F	0.3	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06
F	1.8	0.98	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07
F	3.9	3.72	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07
F	6.5	3.04	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07
F	9.6	0.15	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07
F	12.5	0.04	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.003E-07
G	1.8	0.41	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08

Calculation No. PM-1055 Revision 0**Attachment J****Page 11 of 1411**

G	3.9	1.77	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	0.60	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	0.04	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 12 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

S SECTOR BOUNDARY DISTANCE = 209.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	4.045E-06	2.858E-06	2.224E-06	1.994E-06	1.715E-06	1.640E-06	1.264E-06
0.005	0.021	0.032	0.258	0.746	2.961	4.126	4.276	4.351	4.426
0.00031	0.00131	0.00201	0.01600	0.04633	0.18394	0.25625	0.26558	0.27025	0.27491
1.262E-06	1.196E-06	1.159E-06	1.038E-06	8.931E-07	8.082E-07	6.875E-07	6.230E-07	6.226E-07	5.890E-07
6.679	8.257	8.632	21.025	21.062	21.738	22.715	22.865	42.430	51.255
0.41486	0.51283	0.53616	1.30589	1.30822	1.35021	1.41085	1.42018	2.63543	3.18357
4.207E-07	3.534E-07	3.243E-07	3.208E-07	2.719E-07	2.388E-07	1.925E-07	1.841E-07	1.415E-07	1.301E-07
66.127	79.909	82.650	86.368	86.406	92.264	95.306	96.170	96.733	96.883
4.10725	4.96329	5.13356	5.36448	5.36681	5.73069	5.91962	5.97327	6.00826	6.01759
1.003E-07	8.032E-08	6.449E-08	3.010E-08	1.806E-08	1.220E-08				
96.921	97.183	97.597	99.362	99.962	100.000				
6.01992	6.03625	6.06191	6.17153	6.20886	6.21119				

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (2) = 0.256

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (3) = 1.304

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 3.181
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 4.960

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
1	1	-11.07050	-16.47142	-1.19518
1	2	-13.12558	-16.30722	-1.13653
1	3	-13.77855	-17.18353	-1.53040
1	4	-14.34482	-18.94210	-2.47847
1	5	-14.85564	NUMXQ(K)= 5	
		3.332E-06	0.062	1.000
		2.250E-06	0.186	3.000
		1.857E-06	0.311	5.000
		1.419E-06	0.621	10.000
		1.201E-06	0.932	15.000
		1.061E-06	1.242	20.000
		9.350E-07	1.553	25.000
		8.354E-07	1.863	30.000
		7.578E-07	2.174	35.000
		6.951E-07	2.484	40.000
		6.430E-07	2.795	45.000
		5.990E-07	3.106	50.000
		5.446E-07	3.416	55.000
		4.938E-07	3.727	60.000
		4.506E-07	4.037	65.000
		4.134E-07	4.348	70.000
		3.812E-07	4.658	75.000
		1.547E-06	0.5	8.05

ANNUAL AVERAGE = 1.69E-12

K= 1 FIVEXQ(K)= 1.547E-06 FIVEPR(K)= 8.050

FUMIGATION X/Q AT THE BOUNDARY: 1.69E-04

EXPONENTIAL TERM AND FREQUENCIES

5.684E-01	5.200E-01	4.072E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
0.376	3.981	5.032	12.967	65.322	97.183	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 14 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1 96.3 meters

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE SSW SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	3.6	0.60	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	4.045E-06			
A	6.0	0.60	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	2.427E-06			
A	8.9	0.26	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	1.640E-06			
A	11.6	0.13	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	1.264E-06			
B	1.7	0.13	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	6.124E-06			
B	3.6	1.52	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	2.858E-06			
B	6.0	0.99	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.715E-06			
B	8.9	0.20	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.159E-06			
B	11.6	0.13	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	8.931E-07			
C	1.7	0.33	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	4.272E-06			
C	3.6	1.46	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06			
C	6.0	1.26	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06			
C	8.9	0.53	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07			
C	11.6	0.07	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	6.230E-07			
C	26.5	0.26	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	2.719E-07			
D	0.2	0.01	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05			
D	1.7	3.84	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06			
D	3.6	13.96	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06			
D	6.0	23.09	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07			
D	8.9	10.19	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07			
D	11.6	1.79	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07			
D	26.5	0.46	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07			
E	0.3	0.02	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06			
E	1.8	2.91	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06			
E	3.9	10.85	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07			
E	6.5	13.30	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07			
E	9.6	2.51	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07			
E	12.5	0.53	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07			
E	28.5	0.07	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08			
F	0.3	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06			
F	1.8	1.26	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07			
F	3.9	2.51	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07			
F	6.5	1.65	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07			
F	9.6	0.07	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07			

G	1.8	0.93	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	1.26	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	0.33	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 16 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

SSW SECTOR BOUNDARY DISTANCE = 209.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	6.124E-06	4.813E-06	4.272E-06	4.045E-06	2.858E-06	2.427E-06	2.224E-06	1.994E-06
0.009	0.029	0.162	0.176	0.507	1.102	2.624	3.219	7.056	8.511
0.00031	0.00104	0.00570	0.00621	0.01788	0.03887	0.09252	0.11351	0.24880	0.30011
1.715E-06	1.640E-06	1.264E-06	1.262E-06	1.196E-06	1.159E-06	1.038E-06	8.931E-07	8.082E-07	6.875E-07
9.504	9.768	9.901	12.811	14.068	14.267	28.225	28.357	28.886	30.143
0.33510	0.34443	0.34909	0.45172	0.49604	0.50304	0.99520	0.99987	1.01853	1.06285
6.230E-07	6.226E-07	5.890E-07	4.207E-07	3.534E-07	3.243E-07	3.208E-07	2.719E-07	2.388E-07	1.925E-07
30.209	53.296	64.145	74.333	87.630	89.416	91.929	92.194	94.708	96.362
1.06518	1.87923	2.26176	2.62097	3.08981	3.15279	3.24142	3.25075	3.33939	3.39770
1.841E-07	1.415E-07	1.301E-07	8.032E-08	6.449E-08	3.010E-08	1.806E-08			
96.891	97.354	97.420	97.486	98.412	99.669	100.000			
3.41636	3.43269	3.43502	3.43736	3.47001	3.51433	3.52599			

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.249
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 0.994

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 2.259
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 3.087

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
2	1	-11.07050	-16.20624	-1.13559
2	2	-13.01641	-17.47309	-1.58660
2	3	-13.77855	-17.82714	-1.73864
2	4	-14.34482	-21.93911	-3.79166
2	5	-14.85564	NUMXQ(K)= 5	
		4.290E-06	0.035	1.000
		3.004E-06	0.106	3.000
		2.517E-06	0.176	5.000
		1.855E-06	0.353	10.000
		1.490E-06	0.529	15.000
		1.268E-06	0.705	20.000
		1.115E-06	0.881	25.000
		9.970E-07	1.058	30.000
		9.001E-07	1.234	35.000
		8.223E-07	1.410	40.000
		7.583E-07	1.587	45.000
		7.044E-07	1.763	50.000
		6.583E-07	1.939	55.000
		6.184E-07	2.116	60.000
		5.767E-07	2.292	65.000
		5.119E-07	2.468	70.000
		4.575E-07	2.644	75.000
		4.114E-07	2.821	80.000
		3.719E-07	2.997	85.000
		1.537E-06	0.5	14.18

ANNUAL AVERAGE = 3.71E-12

K= 2 FIVEXQ(K)= 1.537E-06 FIVEPR(K)=14.180

FUMIGATION X/Q AT THE BOUNDARY: 1.69E-04

EXPONENTIAL TERM AND FREQUENCIES

5.684E-01	5.200E-01	4.072E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
1.588	5.491	8.467	13.973	67.300	97.486	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 18 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE SW SECTOR.

STABILITY CLASS	WINDSPEED METER/SEC	FREQUENCY PERCENT	DISTANCE METERS	TERRAIN METERS	HT METERS	EFF METERS	PLUME METERS	HT METERS	SIGMA-Y METERS	SIGMA-Z METERS	MEANDER-SY METERS	** CHI/Q VALUES (SEC/CUBIC METER)	USED	
												MEANDER	BLDG WAKE	
												CA=1292.SQ.METERS		
A	3.6	1.73	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	0.0	0.000E+00	0.000E+00	4.045E-06
A	6.0	1.50	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	0.0	0.000E+00	0.000E+00	2.427E-06
A	8.9	0.68	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	0.0	0.000E+00	0.000E+00	1.640E-06
B	1.7	0.15	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	0.0	0.000E+00	0.000E+00	6.124E-06
B	3.6	1.35	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	0.0	0.000E+00	0.000E+00	2.858E-06
B	6.0	0.98	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	0.0	0.000E+00	0.000E+00	1.715E-06
B	8.9	0.15	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	0.0	0.000E+00	0.000E+00	1.159E-06
B	11.6	0.08	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	0.0	0.000E+00	0.000E+00	8.931E-07
C	1.7	0.90	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	0.0	0.000E+00	0.000E+00	4.272E-06
C	3.6	2.10	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	0.0	0.000E+00	0.000E+00	1.994E-06
C	6.0	0.68	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	0.0	0.000E+00	0.000E+00	1.196E-06
C	8.9	0.30	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	0.0	0.000E+00	0.000E+00	8.082E-07
D	0.2	0.02	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	0.0	0.000E+00	0.000E+00	1.556E-05
D	1.7	8.10	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	0.0	0.000E+00	0.000E+00	2.224E-06
D	3.6	17.86	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	0.0	0.000E+00	0.000E+00	1.038E-06
D	6.0	18.83	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	0.0	0.000E+00	0.000E+00	6.226E-07
D	8.9	6.38	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	0.0	0.000E+00	0.000E+00	4.207E-07
D	11.6	0.98	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	0.0	0.000E+00	0.000E+00	3.243E-07
D	26.5	0.90	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	0.0	0.000E+00	0.000E+00	1.415E-07
E	0.3	0.02	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	0.0	0.000E+00	0.000E+00	8.835E-06
E	1.8	2.70	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	0.0	0.000E+00	0.000E+00	1.262E-06
E	3.9	11.25	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	0.0	0.000E+00	0.000E+00	5.890E-07
E	6.5	11.71	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	0.0	0.000E+00	0.000E+00	3.534E-07
E	9.6	1.95	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	0.0	0.000E+00	0.000E+00	2.388E-07
E	12.5	0.60	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	0.0	0.000E+00	0.000E+00	1.841E-07
E	28.5	0.08	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	0.0	0.000E+00	0.000E+00	8.032E-08
F	0.3	0.02	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	0.0	0.000E+00	0.000E+00	4.813E-06
F	1.8	1.65	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	0.0	0.000E+00	0.000E+00	6.875E-07
F	3.9	2.55	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	0.0	0.000E+00	0.000E+00	3.208E-07
F	6.5	0.98	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	0.0	0.000E+00	0.000E+00	1.925E-07
F	9.6	0.08	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	0.0	0.000E+00	0.000E+00	1.301E-07
G	1.8	0.83	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	1.65	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	0.0	0.000E+00	0.000E+00	3.010E-08

G	6.5	0.30	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
---	-----	------	--------	----	------	--------	------	-----	-----------	-----------	-----------

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 20 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

SW SECTOR BOUNDARY DISTANCE = 209.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	6.124E-06	4.813E-06	4.272E-06	4.045E-06	2.858E-06	2.427E-06	2.224E-06	1.994E-06
0.018	0.038	0.188	0.207	1.107	2.833	4.183	5.684	13.788	15.888
0.00057	0.00117	0.00583	0.00642	0.03441	0.08806	0.13005	0.17670	0.42861	0.49392
1.715E-06	1.640E-06	1.262E-06	1.196E-06	1.159E-06	1.038E-06	8.931E-07	8.082E-07	6.875E-07	6.226E-07
16.864	17.539	20.240	20.916	21.066	38.923	38.999	39.299	40.949	59.783
0.52424	0.54524	0.62921	0.65020	0.65487	1.21001	1.21234	1.22167	1.27298	1.85845
5.890E-07	4.207E-07	3.534E-07	3.243E-07	3.208E-07	2.388E-07	1.925E-07	1.841E-07	1.415E-07	1.301E-07
71.037	77.415	89.120	90.096	92.647	94.598	95.573	96.173	97.074	97.149
2.20833	2.40659	2.77047	2.80079	2.88009	2.94074	2.97106	2.98972	3.01771	3.02005
8.032E-08	6.449E-08	3.010E-08	1.806E-08						
97.224	98.049	99.700	100.000						
3.02238	3.04804	3.09935	3.10868						

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.088
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 0.428

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4) = 1.209
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5) = 2.206
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(6) = 2.768

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
3	1	-11.07050	-15.76030	-1.06849
3	2	-12.41800	-16.16917	-1.19920
3	3	-13.01641	-18.36423	-2.03412
3	4	-13.77855	-19.06598	-2.34541
3	5	-14.34482	-24.96016	-5.27354
3	6	-14.85564	NUMXQ(K) = 6	
		5.539E-06	0.031	1.000
		3.964E-06	0.093	3.000
		3.295E-06	0.155	5.000
		2.529E-06	0.311	10.000
		2.097E-06	0.466	15.000
		1.710E-06	0.622	20.000
		1.453E-06	0.777	25.000
		1.268E-06	0.933	30.000
		1.127E-06	1.088	35.000
		1.012E-06	1.243	40.000
		9.092E-07	1.399	45.000
		8.246E-07	1.554	50.000
		7.539E-07	1.710	55.000
		6.940E-07	1.865	60.000
		6.424E-07	2.021	65.000
		5.976E-07	2.176	70.000
		5.221E-07	2.332	75.000
		4.518E-07	2.487	80.000
		3.938E-07	2.642	85.000
		1.997E-06	0.5	16.08

ANNUAL AVERAGE = 8.69E-12

K= 3 FIVEXQ(K) = 1.997E-06 FIVEPR(K) = 16.084

FUMIGATION X/Q AT THE BOUNDARY: 1.69E-04

EXPONENTIAL TERM AND FREQUENCIES

5.684E-01	5.200E-01	4.072E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
3.902	7.878	10.580	15.851	68.917	97.224	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 22 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1 96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE WSW SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	3.6	2.58	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	4.045E-06			
A	6.0	1.92	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	2.427E-06			
A	8.9	1.19	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	1.640E-06			
A	11.6	0.07	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	1.264E-06			
B	1.7	0.59	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	6.124E-06			
B	3.6	1.65	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	2.858E-06			
B	6.0	0.99	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.715E-06			
B	8.9	0.07	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.159E-06			
C	1.7	0.99	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	4.272E-06			
C	3.6	2.44	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06			
C	6.0	1.12	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06			
C	8.9	0.20	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07			
D	0.2	0.02	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05			
D	1.7	7.86	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06			
D	3.6	22.19	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06			
D	6.0	18.36	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07			
D	8.9	4.43	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07			
D	11.6	0.73	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07			
D	26.5	0.13	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07			
E	0.3	0.03	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06			
E	1.8	4.03	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06			
E	3.9	14.46	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07			
E	6.5	6.67	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07			
E	9.6	0.73	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07			
E	12.5	0.26	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07			
E	28.5	0.07	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08			
F	0.3	0.02	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06			
F	1.8	1.72	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07			
F	3.9	1.92	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07			
F	6.5	0.53	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07			
G	1.8	0.66	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08			
G	3.9	1.25	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08			
G	6.5	0.13	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08			

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 23 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

SITE EXCLUSION BOUNDARY CALCULATIONS:

WSW SECTOR BOUNDARY DISTANCE = 209.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	6.124E-06	4.813E-06	4.272E-06	4.045E-06	2.858E-06	2.427E-06	2.224E-06	1.994E-06
0.018	0.046	0.641	0.661	1.651	4.227	5.879	7.794	15.654	18.098
0.00063	0.00164	0.02263	0.02333	0.05832	0.14929	0.20760	0.27524	0.55282	0.63912
1.715E-06	1.640E-06	1.264E-06	1.262E-06	1.196E-06	1.159E-06	1.038E-06	8.082E-07	6.875E-07	6.226E-07
19.089	20.278	20.344	24.373	25.496	25.562	47.754	47.953	49.670	68.032
0.67411	0.71609	0.71842	0.86071	0.90036	0.90269	1.68642	1.69342	1.75407	2.40251
5.890E-07	4.207E-07	3.534E-07	3.243E-07	3.208E-07	2.388E-07	1.925E-07	1.841E-07	1.415E-07	8.032E-08
82.497	86.922	93.593	94.320	96.235	96.962	97.490	97.754	97.886	97.952
2.91333	3.06961	3.30519	3.33085	3.39849	3.42415	3.44281	3.45214	3.45681	3.45914
6.449E-08	3.010E-08	1.806E-08							
98.613	99.868	100.000							
3.48247	3.52678	3.53145							

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 0.552
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 1.685

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 2.911

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
4	1	-11.07050	-15.27913	-0.96350
4	2	-12.41800	-16.56801	-1.39754
4	3	-13.01641	-17.65467	-1.82513
4	4	-13.77855	-19.01550	-2.46590
4	5	-14.34482	NUMXQ(K)= 5	
		6.050E-06	0.035	1.000
		4.471E-06	0.106	3.000
		3.762E-06	0.177	5.000
		2.753E-06	0.353	10.000
		2.270E-06	0.530	15.000
		1.898E-06	0.706	20.000
		1.636E-06	0.883	25.000
		1.445E-06	1.059	30.000
		1.297E-06	1.236	35.000
		1.180E-06	1.413	40.000
		1.084E-06	1.589	45.000
		9.912E-07	1.766	50.000
		9.005E-07	1.942	55.000
		8.240E-07	2.119	60.000
		7.585E-07	2.295	65.000
		7.019E-07	2.472	70.000
		6.524E-07	2.649	75.000
		6.089E-07	2.825	80.000
		2.335E-06	0.5	14.16

ANNUAL AVERAGE = 1.44E-11

K= 4 FIVEXQ(K)= 2.335E-06 FIVEPR(K)=14.158

FUMIGATION X/Q AT THE BOUNDARY: 1.69E-04

EXPONENTIAL TERM AND FREQUENCIES

5.684E-01	5.200E-01	4.072E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
5.746	10.502	13.804	17.985	71.702	97.952	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 25 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE W SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	1.7	0.15	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	8.668E-06			
A	3.6	4.26	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	4.045E-06			
A	6.0	2.25	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	2.427E-06			
A	8.9	0.34	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	1.640E-06			
B	1.7	0.24	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	6.124E-06			
B	3.6	2.74	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	2.858E-06			
B	6.0	0.59	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.715E-06			
B	8.9	0.05	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.159E-06			
C	1.7	0.05	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	4.272E-06			
C	3.6	2.45	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06			
C	6.0	0.68	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06			
C	8.9	0.15	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07			
C	11.6	0.05	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	6.230E-07			
D	0.2	0.01	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05			
D	1.7	5.63	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06			
D	3.6	21.28	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06			
D	6.0	16.19	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07			
D	8.9	6.46	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07			
D	11.6	1.57	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07			
D	26.5	0.39	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07			
E	0.3	0.02	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06			
E	1.8	2.94	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06			
E	3.9	13.85	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07			
E	6.5	7.88	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07			
E	9.6	2.84	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07			
E	12.5	0.59	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07			
E	28.5	0.98	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08			
F	0.3	0.02	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06			
F	1.8	1.52	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07			
F	3.9	1.66	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07			
F	6.5	0.64	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07			
F	28.5	0.20	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.375E-08			
G	1.8	0.64	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08			

Calculation No. PM-1055 Revision 0**Attachment J****Page 26 of 1411**

G	3.9	0.64	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	0.10	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 27 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

W SECTOR BOUNDARY DISTANCE = 209.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	8.668E-06	6.124E-06	4.813E-06	4.272E-06	4.045E-06	2.858E-06	2.427E-06	2.224E-06
0.013	0.034	0.180	0.425	0.442	0.491	4.748	7.487	9.738	15.364
0.00061	0.00160	0.00860	0.02026	0.02110	0.02343	0.22636	0.35698	0.46428	0.73252
1.994E-06	1.715E-06	1.640E-06	1.262E-06	1.196E-06	1.159E-06	1.038E-06	8.082E-07	6.875E-07	6.230E-07
17.810	18.397	18.740	21.675	22.360	22.409	43.690	43.837	45.353	45.402
0.84914	0.87713	0.89346	1.03341	1.06607	1.06840	2.08305	2.09005	2.16235	2.16469
6.226E-07	5.890E-07	4.207E-07	3.534E-07	3.243E-07	3.208E-07	2.388E-07	1.925E-07	1.841E-07	1.415E-07
61.596	75.441	81.899	89.775	91.341	93.004	95.842	96.478	97.065	97.456
2.93675	3.59686	3.90475	4.28029	4.35493	4.43423	4.56952	4.59984	4.62783	4.64649
8.032E-08	6.449E-08	4.375E-08	3.010E-08	1.806E-08					
98.434	99.070	99.266	99.902	100.000					
4.69314	4.72347	4.73280	4.76312	4.76779					

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 0.732
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 2.081

Calculation No. PM-1055 Revision 0

Attachment J

Page 28 of 1411

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 3.594
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(6)= 4.431

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
5	1	-11.07050	-14.90832	-0.87711
5	2	-12.41800	-16.68802	-1.50394
5	3	-13.01641	-17.62189	-1.88646
5	4	-13.77855	-18.63791	-2.38516
5	5	-14.34482	-25.59808	-6.25210
5	6	-14.95230	NUMXQ(K)= 6	
		6.082E-06	0.048	1.000
		4.587E-06	0.143	3.000
		3.946E-06	0.238	5.000
		2.792E-06	0.477	10.000
		2.253E-06	0.715	15.000
		1.853E-06	0.954	20.000
		1.580E-06	1.192	25.000
		1.382E-06	1.430	30.000
		1.231E-06	1.669	35.000
		1.111E-06	1.907	40.000
		1.008E-06	2.146	45.000
		9.065E-07	2.384	50.000
		8.225E-07	2.622	55.000
		7.516E-07	2.861	60.000
		6.910E-07	3.099	65.000
		6.385E-07	3.337	70.000
		5.928E-07	3.576	75.000
		4.980E-07	3.814	80.000
		4.178E-07	4.053	85.000
		3.535E-07	4.291	90.000
		2.724E-06	0.5	10.49

ANNUAL AVERAGE = 2.88E-11

K= 5 FIVEXQ(K)= 2.724E-06 FIVEPR(K)=10.487

FUMIGATION X/Q AT THE BOUNDARY: 1.69E-04

EXPONENTIAL TERM AND FREQUENCIES

5.684E-01	5.200E-01	4.072E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
6.996	10.372	13.992	18.021	69.549	98.630	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 29 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE WNW SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	3.6	2.40	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	4.045E-06			
A	6.0	2.40	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	2.427E-06			
A	8.9	0.16	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	1.640E-06			
A	11.6	0.05	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	1.264E-06			
A	26.5	0.05	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	5.516E-07			
B	3.6	1.58	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	2.858E-06			
B	6.0	1.36	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.715E-06			
B	8.9	0.11	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.159E-06			
B	11.6	0.05	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	8.931E-07			
C	3.6	3.54	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06			
C	6.0	1.42	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06			
C	8.9	0.22	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07			
C	11.6	0.11	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	6.230E-07			
D	0.2	0.01	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05			
D	1.7	4.69	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06			
D	3.6	16.58	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06			
D	6.0	16.79	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07			
D	8.9	7.63	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07			
D	11.6	1.42	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07			
D	26.5	0.11	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07			
E	0.3	0.02	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06			
E	1.8	3.27	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06			
E	3.9	10.91	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07			
E	6.5	14.01	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07			
E	9.6	3.44	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07			
E	12.5	1.15	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07			
E	28.5	0.22	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08			
F	0.3	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06			
F	1.8	1.25	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07			
F	3.9	2.84	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07			
F	6.5	1.31	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07			
F	9.6	0.11	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07			
F	28.5	0.05	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.375E-08			

Calculation No. PM-1055 Revision 0**Attachment J****Page 30 of 1411**

G	1.8	0.27	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	0.33	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	0.11	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 31 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

WNW SECTOR BOUNDARY DISTANCE = 209.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	4.045E-06	2.858E-06	2.427E-06	2.224E-06	1.994E-06	1.715E-06	1.640E-06
0.011	0.034	0.048	2.448	4.029	6.428	11.118	14.662	16.025	16.189
0.00045	0.00145	0.00207	0.10470	0.17234	0.27497	0.47557	0.62719	0.68550	0.69250
1.264E-06	1.262E-06	1.196E-06	1.159E-06	1.038E-06	8.931E-07	8.082E-07	6.875E-07	6.230E-07	6.226E-07
16.243	19.515	20.933	21.042	37.619	37.673	37.891	39.146	39.255	56.050
0.69483	0.83478	0.89543	0.90009	1.60918	1.61151	1.62084	1.67449	1.67915	2.39757
5.890E-07	5.516E-07	4.207E-07	3.534E-07	3.243E-07	3.208E-07	2.388E-07	1.925E-07	1.841E-07	1.415E-07
66.955	67.010	74.644	88.658	90.076	92.911	96.347	97.655	98.800	98.909
2.86408	2.86641	3.19296	3.79242	3.85307	3.97436	4.12131	4.17729	4.22627	4.23094
1.301E-07	8.032E-08	6.449E-08	4.375E-08	3.010E-08	1.806E-08				
99.018	99.237	99.509	99.564	99.891	100.000				
4.23560	4.24493	4.25659	4.25893	4.27292	4.27759				

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 0.626
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 1.607

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 2.861
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(6)= 3.789

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
6	1	-11.07050	-15.46296	-0.98963
6	2	-12.41800	-16.17186	-1.22003
6	3	-13.12558	-17.72706	-1.84289
6	4	-13.77855	-18.81308	-2.34976
6	5	-14.34482	-22.06134	-4.05796
6	6	-14.85564	NUMXQ(K)= 6	
		5.219E-06	0.043	1.000
		3.754E-06	0.128	3.000
		3.094E-06	0.214	5.000
		2.344E-06	0.428	10.000
		1.964E-06	0.642	15.000
		1.621E-06	0.856	20.000
		1.391E-06	1.069	25.000
		1.223E-06	1.283	30.000
		1.094E-06	1.497	35.000
		9.792E-07	1.711	40.000
		8.749E-07	1.925	45.000
		7.896E-07	2.139	50.000
		7.187E-07	2.353	55.000
		6.586E-07	2.567	60.000
		6.072E-07	2.780	65.000
		5.441E-07	2.994	70.000
		4.806E-07	3.208	75.000
		4.273E-07	3.422	80.000
		3.822E-07	3.636	85.000
		2.196E-06	0.5	11.69

ANNUAL AVERAGE = 1.63E-11

K= 6 FIVEXQ(K)= 2.196E-06 FIVEPR(K)=11.689

FUMIGATION X/Q AT THE BOUNDARY: 1.69E-04

EXPONENTIAL TERM AND FREQUENCIES

5.684E-01	5.200E-01	4.072E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
5.071	10.361	13.469	19.045	66.278	99.291	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 33 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE NW SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	3.6	0.17	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	4.045E-06			
A	6.0	0.87	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	2.427E-06			
A	8.9	0.56	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	1.640E-06			
B	1.7	0.09	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	6.124E-06			
B	3.6	0.43	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	2.858E-06			
B	6.0	1.17	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.715E-06			
B	8.9	0.35	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.159E-06			
B	11.6	0.04	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	8.931E-07			
C	3.6	0.61	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06			
C	6.0	2.69	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06			
C	8.9	0.48	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07			
D	0.2	0.00	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05			
D	1.7	1.95	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06			
D	3.6	14.72	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06			
D	6.0	20.76	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07			
D	8.9	6.99	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07			
D	11.6	0.61	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07			
D	26.5	0.30	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07			
E	0.3	0.02	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06			
E	1.8	2.65	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06			
E	3.9	14.98	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07			
E	6.5	15.16	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07			
E	9.6	4.26	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07			
E	12.5	0.69	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07			
E	28.5	0.52	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08			
F	0.3	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06			
F	1.8	1.22	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07			
F	3.9	3.52	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07			
F	6.5	2.08	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07			
F	9.6	0.30	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07			
G	1.8	0.17	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08			
G	3.9	1.22	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08			
G	6.5	0.35	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08			

G	9.6	0.04	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08
---	-----	------	--------	----	------	--------	------	-----	-----------	-----------	-----------

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 35 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

NW SECTOR BOUNDARY DISTANCE = 209.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	6.124E-06	4.813E-06	4.045E-06	2.858E-06	2.427E-06	2.224E-06	1.994E-06	1.715E-06
0.004	0.023	0.110	0.124	0.298	0.732	1.601	3.555	4.163	5.335
0.00024	0.00125	0.00591	0.00667	0.01600	0.03932	0.08597	0.19094	0.22359	0.28657
1.640E-06	1.262E-06	1.196E-06	1.159E-06	1.038E-06	8.931E-07	8.082E-07	6.875E-07	6.226E-07	5.890E-07
5.900	8.548	11.241	11.588	26.309	26.352	26.830	28.046	48.803	63.784
0.31689	0.45918	0.60380	0.62246	1.41318	1.41551	1.44117	1.50648	2.62143	3.42615
4.207E-07	3.534E-07	3.243E-07	3.208E-07	2.388E-07	1.925E-07	1.841E-07	1.415E-07	1.301E-07	8.032E-08
70.775	85.931	86.538	90.056	94.311	96.396	97.091	97.395	97.698	98.220
3.80169	4.61574	4.64839	4.83733	5.06591	5.17788	5.21520	5.23152	5.24785	5.27584
6.449E-08	3.010E-08	1.806E-08	1.220E-08						
98.393	99.609	99.957	100.000						
5.28517	5.35048	5.36914	5.37148						

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.191
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 1.412

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 3.423
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 4.612

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
7	1	-11.07050	-16.36184	-1.15635
7	2	-13.01641	-16.17063	-1.09026
7	3	-13.77855	-17.11755	-1.52184
7	4	-14.34482	-21.07552	-3.69421
7	5	-14.85564	NUMXQ(K)= 5	
		3.440E-06	0.054	1.000
		2.364E-06	0.161	3.000
		1.975E-06	0.269	5.000
		1.532E-06	0.537	10.000
		1.308E-06	0.806	15.000
		1.164E-06	1.074	20.000
		1.060E-06	1.343	25.000
		9.586E-07	1.611	30.000
		8.718E-07	1.880	35.000
		8.016E-07	2.149	40.000
		7.432E-07	2.417	45.000
		6.938E-07	2.686	50.000
		6.513E-07	2.954	55.000
		6.141E-07	3.223	60.000
		5.707E-07	3.491	65.000
		5.038E-07	3.760	70.000
		4.478E-07	4.029	75.000
		4.005E-07	4.297	80.000
		3.603E-07	4.566	85.000
		1.574E-06	0.5	9.31

ANNUAL AVERAGE = 4.58E-12

K= 7 FIVEXQ(K)= 1.574E-06 FIVEPR(K)= 9.308

FUMIGATION X/Q AT THE BOUNDARY: 1.69E-04

EXPONENTIAL TERM AND FREQUENCIES

5.684E-01	5.200E-01	4.072E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
1.607	5.385	7.469	14.605	59.944	98.220	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 37 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE NNW SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	3.6	0.09	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	4.045E-06			
A	6.0	0.09	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	2.427E-06			
B	3.6	0.14	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	2.858E-06			
B	6.0	0.37	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.715E-06			
B	8.9	0.37	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.159E-06			
B	11.6	0.05	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	8.931E-07			
C	3.6	0.55	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06			
C	6.0	1.01	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06			
C	8.9	0.46	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07			
C	11.6	0.05	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	6.230E-07			
D	0.2	0.00	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05			
D	1.7	1.61	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06			
D	3.6	11.17	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06			
D	6.0	21.42	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07			
D	8.9	5.42	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07			
D	11.6	0.51	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07			
D	26.5	0.32	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07			
E	0.3	0.02	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06			
E	1.8	2.71	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06			
E	3.9	14.29	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07			
E	6.5	20.36	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07			
E	9.6	7.58	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07			
E	12.5	0.51	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07			
E	28.5	0.09	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08			
F	0.3	0.02	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06			
F	1.8	1.47	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07			
F	3.9	4.14	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07			
F	6.5	3.63	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07			
F	9.6	0.37	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07			
G	1.8	0.41	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08			
G	3.9	0.46	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08			
G	6.5	0.28	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08			
G	9.6	0.05	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08			

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 38 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

NNW SECTOR BOUNDARY DISTANCE = 209.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	4.045E-06	2.858E-06	2.427E-06	2.224E-06	1.994E-06	1.715E-06	1.262E-06
0.004	0.023	0.040	0.132	0.270	0.362	1.970	2.522	2.889	5.601
0.00018	0.00116	0.00203	0.00669	0.01369	0.01835	0.09999	0.12798	0.14664	0.28426
1.196E-06	1.159E-06	1.038E-06	8.931E-07	8.082E-07	6.875E-07	6.230E-07	6.226E-07	5.890E-07	4.207E-07
6.612	6.980	18.148	18.194	18.653	20.124	20.170	41.587	55.880	61.303
0.33558	0.35424	0.92104	0.92337	0.94670	1.02134	1.02367	2.11063	2.83604	3.11128
3.534E-07	3.243E-07	3.208E-07	2.388E-07	1.925E-07	1.841E-07	1.415E-07	1.301E-07	8.032E-08	6.449E-08
81.662	82.168	86.304	93.887	97.518	98.024	98.345	98.713	98.805	99.219
4.14459	4.17025	4.38017	4.76504	4.94931	4.97497	4.99130	5.00996	5.01462	5.03561
3.010E-08	1.806E-08	1.220E-08							
99.678	99.954	100.000							
5.05894	5.07293	5.07527							

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2) = 0.100

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3) = 0.920

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4) = 2.833
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5) = 4.141

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
8	1	-11.07050	-16.92746	-1.26549
8	2	-13.01641	-16.22955	-1.03967
8	3	-13.77855	-16.73458	-1.25389
8	4	-14.34482	-20.02675	-2.98127
8	5	-14.85564	NUMXQ(K) = 5	
		2.850E-06	0.051	1.000
		1.948E-06	0.152	3.000
		1.648E-06	0.254	5.000
		1.296E-06	0.508	10.000
		1.116E-06	0.761	15.000
		9.915E-07	1.015	20.000
		8.911E-07	1.269	25.000
		8.147E-07	1.523	30.000
		7.539E-07	1.776	35.000
		7.039E-07	2.030	40.000
		6.618E-07	2.284	45.000
		6.256E-07	2.538	50.000
		5.941E-07	2.791	55.000
		5.366E-07	3.045	60.000
		4.825E-07	3.299	65.000
		4.367E-07	3.553	70.000
		3.975E-07	3.806	75.000
		3.637E-07	4.060	80.000
		1.303E-06	0.5	9.85

ANNUAL AVERAGE = 7.25E-13

K= 8 FIVEXQ(K) = 1.303E-06 FIVEPR(K) = 9.852

FUMIGATION X/Q AT THE BOUNDARY: 1.69E-04

EXPONENTIAL TERM AND FREQUENCIES

5.684E-01	5.200E-01	4.072E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
0.184	2.252	3.171	12.793	53.241	98.805	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 40 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE N SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	6.0	0.28	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	2.427E-06			
A	8.9	0.16	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	1.640E-06			
B	3.6	0.07	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	2.858E-06			
B	6.0	0.58	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.715E-06			
B	8.9	0.72	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.159E-06			
B	11.6	0.12	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	8.931E-07			
B	26.5	0.02	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	3.897E-07			
C	3.6	0.44	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06			
C	6.0	1.68	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06			
C	8.9	1.56	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07			
C	11.6	0.21	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	6.230E-07			
C	26.5	0.02	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	2.719E-07			
D	0.2	0.00	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05			
D	1.7	0.96	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06			
D	3.6	7.00	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06			
D	6.0	16.51	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07			
D	8.9	11.24	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07			
D	11.6	2.31	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07			
D	26.5	0.68	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07			
E	0.3	0.01	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06			
E	1.8	1.63	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06			
E	3.9	10.14	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07			
E	6.5	20.78	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07			
E	9.6	12.03	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07			
E	12.5	1.49	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07			
E	28.5	0.14	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08			
F	0.3	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06			
F	1.8	0.54	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07			
F	3.9	3.13	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07			
F	6.5	3.03	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07			
F	9.6	1.03	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07			
G	1.8	0.40	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08			
G	3.9	0.79	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08			

Calculation No. PM-1055 Revision 0**Attachment J****Page 41 of 1411**

G	6.5	0.23	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	0.05	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 42 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

N SECTOR BOUNDARY DISTANCE = 209.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.858E-06	2.427E-06	2.224E-06	1.994E-06	1.715E-06	1.640E-06	1.262E-06
0.002	0.014	0.020	0.090	0.370	1.326	1.769	2.352	2.515	4.148
0.00022	0.00138	0.00200	0.00900	0.03699	0.13262	0.17694	0.23525	0.25158	0.41485
1.196E-06	1.159E-06	1.038E-06	8.931E-07	8.082E-07	6.875E-07	6.230E-07	6.226E-07	5.890E-07	4.207E-07
5.827	6.550	13.547	13.663	15.226	15.762	15.972	32.484	42.629	53.870
0.58280	0.65510	1.35486	1.36652	1.52280	1.57645	1.59744	3.24887	4.26352	5.38780
3.897E-07	3.534E-07	3.243E-07	3.208E-07	2.719E-07	2.388E-07	1.925E-07	1.841E-07	1.415E-07	1.301E-07
53.893	74.673	76.981	80.107	80.130	92.164	95.196	96.688	97.365	98.391
5.39013	7.46841	7.69933	8.01189	8.01422	9.21780	9.52103	9.67031	9.73795	9.84058
8.032E-08	6.449E-08	3.010E-08	1.806E-08	1.220E-08					
98.531	98.927	99.720	99.953	100.000					
9.85458	9.89423	9.97354	9.99686	10.00153					

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2) = 0.132
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4) = 4.260

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 7.465

K	I	XQSAVE(K, I)	XQINT(K, I)	XQSLOP(K, I)
9	1	-11.07050	-16.69575	-1.22412
9	2	-13.01641	-15.89735	-0.95849
9	3	-13.77855	-16.33691	-1.15733
9	4	-14.34482	-17.49364	-1.82936
9	5	-14.85564	NUMXQ(K) = 5	
		2.467E-06	0.100	1.000
		1.737E-06	0.300	3.000
		1.473E-06	0.500	5.000
		1.160E-06	1.000	10.000
		9.906E-07	1.500	15.000
		8.658E-07	2.000	20.000
		7.767E-07	2.500	25.000
		7.087E-07	3.000	30.000
		6.544E-07	3.501	35.000
		6.096E-07	4.001	40.000
		5.621E-07	4.501	45.000
		5.124E-07	5.001	50.000
		4.705E-07	5.501	55.000
		4.345E-07	6.001	60.000
		4.034E-07	6.501	65.000
		3.761E-07	7.001	70.000
		1.473E-06	0.5	5.00

ANNUAL AVERAGE = 2.12E-12

K= 9 FIVEXQ(K)= 1.473E-06 FIVEPR(K)= 4.999

FUMIGATION X/Q AT THE BOUNDARY: 1.69E-04

EXPONENTIAL TERM AND FREQUENCIES

5.684E-01	5.200E-01	4.072E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
0.443	4.361	5.877	13.603	52.296	98.531	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 44 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1 96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE NNE SECTOR.

STABILITY CLASS	WINDSPEED METER/SEC	FREQUENCY PERCENT	DISTANCE METERS	TERRAIN METERS	HT EFF METERS	PLUME HT METERS	SIGMA-Y METERS	SIGMA-Z METERS	MEANDER-SY METERS	** CHI/Q VALUES (SEC/CUBIC METER)		
										MEANDER	BLDG WAKE	USED
AT 131.4 METERS										CA=1292.SQ.METERS		
A	3.6	0.08	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	4.045E-06	
A	6.0	0.28	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	2.427E-06	
A	8.9	0.12	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	1.640E-06	
B	3.6	0.16	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	2.858E-06	
B	6.0	0.56	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.715E-06	
B	8.9	0.36	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.159E-06	
B	11.6	0.08	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	8.931E-07	
C	3.6	0.20	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06	
C	6.0	1.47	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06	
C	8.9	0.95	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07	
D	0.2	0.00	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05	
D	1.7	0.91	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06	
D	3.6	7.60	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06	
D	6.0	16.91	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07	
D	8.9	6.60	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07	
D	11.6	0.64	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07	
D	26.5	0.36	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07	
E	0.3	0.02	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06	
E	1.8	2.23	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06	
E	3.9	12.73	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07	
E	6.5	22.95	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07	
E	9.6	9.07	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07	
E	12.5	0.76	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07	
E	28.5	0.16	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08	
F	0.3	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06	
F	1.8	1.27	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07	
F	3.9	5.61	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07	
F	6.5	4.42	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07	
F	9.6	0.91	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07	
F	12.5	0.12	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.003E-07	
G	1.8	0.36	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08	
G	3.9	1.23	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08	
G	6.5	0.84	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08	

G	9.6	0.04	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08
---	-----	------	--------	----	------	--------	------	-----	-----------	-----------	-----------

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 46 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

NNE SECTOR BOUNDARY DISTANCE = 209.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	4.045E-06	2.858E-06	2.427E-06	2.224E-06	1.994E-06	1.715E-06	1.640E-06
0.002	0.018	0.033	0.112	0.271	0.550	1.465	1.664	2.221	2.340
0.00012	0.00105	0.00191	0.00658	0.01591	0.03224	0.08588	0.09755	0.13020	0.13720
1.262E-06	1.196E-06	1.159E-06	1.038E-06	8.931E-07	8.082E-07	6.875E-07	6.226E-07	5.890E-07	4.207E-07
4.568	6.039	6.397	13.995	14.075	15.030	16.303	33.209	45.939	52.542
0.26782	0.35412	0.37512	0.82063	0.82529	0.88127	0.95592	1.94724	2.69365	3.08085
3.534E-07	3.243E-07	3.208E-07	2.388E-07	1.925E-07	1.841E-07	1.415E-07	1.301E-07	1.003E-07	8.032E-08
75.495	76.132	81.741	90.811	95.226	95.982	96.340	97.255	97.375	97.534
4.42671	4.46403	4.79292	5.32473	5.58364	5.62796	5.64895	5.70260	5.70960	5.71893
6.449E-08	3.010E-08	1.806E-08	1.220E-08						
97.892	99.125	99.960	100.000						
5.73992	5.81223	5.86121	5.86355						

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.001
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 0.086

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 0.820
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 2.691
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(6)= 4.423

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
10	1	-11.07050	-16.86574	-1.22926
10	2	-11.63677	-16.88443	-1.23365
10	3	-13.01641	-16.26591	-1.03638
10	4	-13.77855	-16.65940	-1.20033
10	5	-14.34482	-18.72800	-2.27310
10	6	-14.85564	NUMXQ(K)= 6	
		2.548E-06	0.059	1.000
		1.776E-06	0.176	3.000
		1.500E-06	0.293	5.000
		1.176E-06	0.586	10.000
		1.006E-06	0.880	15.000
		8.839E-07	1.173	20.000
		7.964E-07	1.466	25.000
		7.297E-07	1.759	30.000
		6.764E-07	2.052	35.000
		6.325E-07	2.345	40.000
		5.954E-07	2.639	45.000
		5.416E-07	2.932	50.000
		4.920E-07	3.225	55.000
		4.501E-07	3.518	60.000
		4.142E-07	3.811	65.000
		3.831E-07	4.104	70.000
		3.559E-07	4.398	75.000
		1.246E-06	0.5	8.53

ANNUAL AVERAGE = 1.62E-12

K= 10 FIVEXQ(K)= 1.246E-06 FIVEPR(K)= 8.527

FUMIGATION X/Q AT THE BOUNDARY: 1.69E-04

EXPONENTIAL TERM AND FREQUENCIES

5.684E-01	5.200E-01	4.072E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
0.477	3.103	4.256	16.603	49.623	97.534	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 48 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE NE SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	3.6	0.09	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	4.045E-06			
A	6.0	0.23	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	2.427E-06			
A	8.9	0.09	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	1.640E-06			
B	3.6	0.14	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	2.858E-06			
B	6.0	0.61	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.715E-06			
B	8.9	0.28	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.159E-06			
B	11.6	0.05	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	8.931E-07			
C	3.6	0.33	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06			
C	6.0	1.41	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06			
C	8.9	0.99	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07			
C	11.6	0.19	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	6.230E-07			
C	26.5	0.05	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	2.719E-07			
D	0.2	0.00	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05			
D	1.7	1.50	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06			
D	3.6	7.28	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06			
D	6.0	13.48	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07			
D	8.9	5.92	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07			
D	11.6	0.75	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07			
D	26.5	0.14	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07			
E	0.3	0.02	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06			
E	1.8	2.77	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06			
E	3.9	13.19	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07			
E	6.5	16.62	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07			
E	9.6	10.14	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07			
E	12.5	0.85	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07			
E	28.5	0.09	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08			
F	0.3	0.02	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06			
F	1.8	1.50	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07			
F	3.9	7.32	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07			
F	6.5	7.37	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07			
F	9.6	1.83	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07			
G	1.8	0.28	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08			
G	3.9	1.69	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08			

G	6.5	2.39	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	0.38	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 50 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

NE SECTOR BOUNDARY DISTANCE = 209.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	4.045E-06	2.858E-06	2.427E-06	2.224E-06	1.994E-06	1.715E-06	1.640E-06
0.003	0.023	0.040	0.134	0.275	0.510	2.012	2.341	2.951	3.045
0.00017	0.00115	0.00201	0.00667	0.01367	0.02534	0.09998	0.11630	0.14663	0.15129
1.262E-06	1.196E-06	1.159E-06	1.038E-06	8.931E-07	8.082E-07	6.875E-07	6.230E-07	6.226E-07	5.890E-07
5.815	7.224	7.506	14.783	14.830	15.816	17.319	17.506	30.981	44.175
0.28891	0.35889	0.37288	0.73442	0.73676	0.78574	0.86038	0.86971	1.53914	2.19458
4.207E-07	3.534E-07	3.243E-07	3.208E-07	2.719E-07	2.388E-07	1.925E-07	1.841E-07	1.415E-07	1.301E-07
50.091	66.711	67.463	74.787	74.834	84.976	92.347	93.192	93.333	95.164
2.48848	3.31419	3.35152	3.71539	3.71772	4.22155	4.58775	4.62974	4.63674	4.72770
8.032E-08	6.449E-08	3.010E-08	1.806E-08	1.220E-08					
95.258	95.540	97.230	99.624	100.000					
4.73237	4.74636	4.83034	4.94929	4.96795					

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.100
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 0.734

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 2.192
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 3.712

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
11	1	-11.07050	-16.88108	-1.25046
11	2	-13.01641	-16.63911	-1.17217
11	3	-13.77855	-17.03136	-1.33290
11	4	-14.34482	-19.65802	-2.63609
11	5	-14.95230	NUMXQ(K)= 5	
		2.862E-06	0.050	1.000
		1.931E-06	0.149	3.000
		1.599E-06	0.248	5.000
		1.220E-06	0.497	10.000
		1.030E-06	0.745	15.000
		8.947E-07	0.994	20.000
		7.990E-07	1.242	25.000
		7.266E-07	1.490	30.000
		6.693E-07	1.739	35.000
		6.223E-07	1.987	40.000
		5.771E-07	2.236	45.000
		5.130E-07	2.484	50.000
		4.604E-07	2.732	55.000
		4.164E-07	2.981	60.000
		3.792E-07	3.229	65.000
		3.474E-07	3.478	70.000
		1.217E-06	0.5	10.06

ANNUAL AVERAGE = 1.28E-12

K= 11 FIVEXQ(K)= 1.217E-06 FIVEPR(K)=10.065

FUMIGATION X/Q AT THE BOUNDARY: 1.69E-04

EXPONENTIAL TERM AND FREQUENCIES

5.684E-01	5.200E-01	4.072E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
0.423	3.381	4.460	22.507	51.573	95.258	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 52 of 1411

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE ENE SECTOR.

STABILITY CLASS	WINDSPEED METER/SEC	FREQUENCY PERCENT	DISTANCE METERS	TERRAIN METERS	HT EFF METERS	PLUME HT METERS	SIGMA-Y METERS	SIGMA-Z METERS	MEANDER-SY METERS	CHI/Q VALUES (SEC/CUBIC METER)	BLDG WAKE	USED
AT 131.4 METERS										CA=1292.SQ.METERS		
A	6.0	0.33	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	2.427E-06	
A	8.9	0.14	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	1.640E-06	
A	11.6	0.09	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	1.264E-06	
A	26.5	0.09	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	5.516E-07	
B	3.6	0.05	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	2.858E-06	
B	6.0	0.38	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.715E-06	
B	8.9	0.89	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.159E-06	
B	11.6	0.09	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	8.931E-07	
B	26.5	0.05	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	3.897E-07	
C	3.6	0.14	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06	
C	6.0	1.22	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06	
C	8.9	1.46	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07	
C	11.6	0.19	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	6.230E-07	
C	26.5	0.05	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	2.719E-07	
D	0.2	0.00	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05	
D	1.7	0.71	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06	
D	3.6	6.02	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06	
D	6.0	9.93	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07	
D	8.9	8.94	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07	
D	11.6	1.03	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07	
D	26.5	0.28	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07	
E	0.3	0.02	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06	
E	1.8	2.54	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06	
E	3.9	8.80	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07	
E	6.5	13.97	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07	
E	9.6	12.75	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07	
E	12.5	1.41	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07	
E	28.5	0.05	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08	
F	0.3	0.02	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06	
F	1.8	1.55	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07	
F	3.9	5.50	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07	
F	6.5	8.33	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07	
F	9.6	5.13	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07	
F	12.5	0.85	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.003E-07	

G	1.8	0.85	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	1.60	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	3.29	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	1.22	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08
G	12.5	0.05	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	9.405E-09

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 54 of 1411

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

ENE SECTOR BOUNDARY DISTANCE = 209.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.858E-06	2.427E-06	2.224E-06	1.994E-06	1.715E-06	1.640E-06	1.264E-06
0.002	0.020	0.038	0.085	0.414	1.120	1.261	1.637	1.778	1.872
0.00008	0.00098	0.00186	0.00420	0.02052	0.05551	0.06251	0.08117	0.08817	0.09283
1.262E-06	1.196E-06	1.159E-06	1.038E-06	8.931E-07	8.082E-07	6.875E-07	6.230E-07	6.226E-07	5.890E-07
4.412	5.635	6.529	12.551	12.645	14.103	15.655	15.843	25.769	34.566
0.21879	0.27943	0.32375	0.62232	0.62698	0.69929	0.77626	0.78559	1.27776	1.71394
5.516E-07	4.207E-07	3.897E-07	3.534E-07	3.243E-07	3.208E-07	2.719E-07	2.388E-07	1.925E-07	1.841E-07
34.660	43.598	43.645	57.616	58.651	64.155	64.202	76.950	85.276	86.687
1.71860	2.16178	2.16411	2.85687	2.90819	3.18110	3.18343	3.81554	4.22840	4.29837
1.415E-07	1.301E-07	1.003E-07	8.032E-08	6.449E-08	3.010E-08	1.806E-08	1.220E-08	9.405E-09	
86.970	92.097	92.944	92.991	93.838	95.437	98.730	99.953	100.000	
4.31237	4.56662	4.60860	4.61093	4.65292	4.73222	4.89550	4.95615	4.95848	

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.001
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 0.055

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 0.622
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 1.712
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(6)= 3.178

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
12	1	-11.07050	-16.19649	-1.06775
12	2	-11.63677	-17.47494	-1.36713
12	3	-13.01641	-16.28004	-1.00073
12	4	-13.77855	-17.47979	-1.48070
12	5	-14.34482	-19.25415	-2.31876
12	6	-14.95230	NUMXQ(K)= 6	
		2.323E-06	0.050	1.000
		1.662E-06	0.149	3.000
		1.416E-06	0.248	5.000
		1.124E-06	0.496	10.000
		9.441E-07	0.744	15.000
		8.070E-07	0.992	20.000
		7.118E-07	1.240	25.000
		6.405E-07	1.488	30.000
		5.822E-07	1.735	35.000
		5.130E-07	1.983	40.000
		4.579E-07	2.231	45.000
		4.128E-07	2.479	50.000
		3.754E-07	2.727	55.000
		3.437E-07	2.975	60.000
		1.120E-06	0.5	10.08

ANNUAL AVERAGE = 1.33E-12

K= 12 FIVEXQ(K)= 1.120E-06 FIVEPR(K)=10.084

FUMIGATION X/Q AT THE BOUNDARY: 1.69E-04

EXPONENTIAL TERM AND FREQUENCIES

5.684E-01	5.200E-01	4.072E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
0.659	3.716	5.175	26.549	53.458	92.991	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 56 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE E SECTOR.

STABILITY CLASS	WINDSPEED METER/SEC	FREQUENCY PERCENT	DISTANCE METERS	TERRAIN METERS	HT METERS	EFF METERS	PLUME METERS	HT METERS	SIGMA-Y METERS	SIGMA-Z METERS	MEANDER-SY METERS	** CHI/Q VALUES (SEC/CUBIC METER)	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS			
A	3.6	0.03	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	0.0	0.000E+00	0.000E+00	4.045E-06	
A	6.0	0.24	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	0.0	0.000E+00	0.000E+00	2.427E-06	
A	8.9	0.63	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	0.0	0.000E+00	0.000E+00	1.640E-06	
A	11.6	0.42	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	0.0	0.000E+00	0.000E+00	1.264E-06	
A	26.5	0.06	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	0.0	0.000E+00	0.000E+00	5.516E-07	
B	3.6	0.12	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	0.0	0.000E+00	0.000E+00	2.858E-06	
B	6.0	0.63	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	0.0	0.000E+00	0.000E+00	1.715E-06	
B	8.9	0.81	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	0.0	0.000E+00	0.000E+00	1.159E-06	
B	11.6	0.36	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	0.0	0.000E+00	0.000E+00	8.931E-07	
B	26.5	0.18	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	0.0	0.000E+00	0.000E+00	3.897E-07	
C	3.6	0.15	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	0.0	0.000E+00	0.000E+00	1.994E-06	
C	6.0	1.25	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	0.0	0.000E+00	0.000E+00	1.196E-06	
C	8.9	1.67	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	0.0	0.000E+00	0.000E+00	8.082E-07	
C	11.6	0.86	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	0.0	0.000E+00	0.000E+00	6.230E-07	
C	26.5	0.39	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	0.0	0.000E+00	0.000E+00	2.719E-07	
D	0.2	0.00	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	0.0	0.000E+00	0.000E+00	1.556E-05	
D	1.7	0.78	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	0.0	0.000E+00	0.000E+00	2.224E-06	
D	3.6	4.21	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	0.0	0.000E+00	0.000E+00	1.038E-06	
D	6.0	8.98	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	0.0	0.000E+00	0.000E+00	6.226E-07	
D	8.9	11.78	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	0.0	0.000E+00	0.000E+00	4.207E-07	
D	11.6	6.71	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	0.0	0.000E+00	0.000E+00	3.243E-07	
D	26.5	2.68	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	0.0	0.000E+00	0.000E+00	1.415E-07	
E	0.3	0.01	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	0.0	0.000E+00	0.000E+00	8.835E-06	
E	1.8	1.61	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	0.0	0.000E+00	0.000E+00	1.262E-06	
E	3.9	5.16	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	0.0	0.000E+00	0.000E+00	5.890E-07	
E	6.5	11.78	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	0.0	0.000E+00	0.000E+00	3.534E-07	
E	9.6	15.99	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	0.0	0.000E+00	0.000E+00	2.388E-07	
E	12.5	2.33	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	0.0	0.000E+00	0.000E+00	1.841E-07	
E	28.5	0.27	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	0.0	0.000E+00	0.000E+00	8.032E-08	
F	0.3	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	0.0	0.000E+00	0.000E+00	4.813E-06	
F	1.8	0.89	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	0.0	0.000E+00	0.000E+00	6.875E-07	
F	3.9	2.54	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	0.0	0.000E+00	0.000E+00	3.208E-07	
F	6.5	5.91	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	0.0	0.000E+00	0.000E+00	1.925E-07	
F	9.6	5.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	0.0	0.000E+00	0.000E+00	1.301E-07	

Calculation No. PM-1055 Revision 0**Attachment J****Page 57 of 1411**

F	12.5	0.72	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.003E-07
G	1.8	0.39	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	1.19	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	2.06	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	1.16	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08
G	12.5	0.03	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	9.405E-09
G	28.5	0.03	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	4.104E-09

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 58 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1 96.3 meters

SITE EXCLUSION BOUNDARY CALCULATIONS:

E SECTOR BOUNDARY DISTANCE = 209.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	4.045E-06	2.858E-06	2.427E-06	2.224E-06	1.994E-06	1.715E-06	1.640E-06
0.002	0.013	0.024	0.053	0.173	0.411	1.187	1.336	1.962	2.589
0.00014	0.00103	0.00184	0.00417	0.01350	0.03216	0.09281	0.10447	0.15346	0.20244
1.264E-06	1.262E-06	1.196E-06	1.159E-06	1.038E-06	8.931E-07	8.082E-07	6.875E-07	6.230E-07	6.226E-07
3.006	4.617	5.869	6.675	10.880	11.238	12.908	13.803	14.668	23.646
0.23509	0.36105	0.45902	0.52199	0.85088	0.87887	1.00949	1.07947	1.14711	1.84920
5.890E-07	5.516E-07	4.207E-07	3.897E-07	3.534E-07	3.243E-07	3.208E-07	2.719E-07	2.388E-07	1.925E-07
28.806	28.865	40.646	40.825	52.607	59.317	61.853	62.240	78.227	84.133
2.25273	2.25739	3.17874	3.19274	4.11408	4.63890	4.83717	4.86749	6.11772	6.57956
1.841E-07	1.415E-07	1.301E-07	1.003E-07	8.032E-08	6.449E-08	3.010E-08	1.806E-08	1.220E-08	9.405E-09
86.459	89.143	94.154	94.870	95.138	95.526	96.719	98.777	99.940	99.970
6.76150	6.97143	7.36329	7.41927	7.44026	7.47059	7.56389	7.72483	7.81580	7.81813
4.104E-09									
100.000									
7.82046									

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS

SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.093
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 0.850
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 2.250
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 4.834

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
13	1	-11.07050	-16.85765	-1.23409
13	2	-13.01641	-16.28464	-1.05000
13	3	-13.77855	-17.31495	-1.48167
13	4	-14.34482	-17.89132	-1.76920
13	5	-14.95230	NUMXQ(K)= 5	
		2.366E-06	0.078	1.000
		1.649E-06	0.235	3.000
		1.383E-06	0.391	5.000
		1.072E-06	0.782	10.000
		8.680E-07	1.173	15.000
		7.349E-07	1.564	20.000
		6.428E-07	1.955	25.000
		5.714E-07	2.346	30.000
		5.083E-07	2.737	35.000
		4.583E-07	3.128	40.000
		4.173E-07	3.519	45.000
		3.832E-07	3.910	50.000
		3.542E-07	4.301	55.000
		3.292E-07	4.692	60.000
		1.266E-06	0.5	6.39

ANNUAL AVERAGE = 3.92E-12

K= 13 FIVEXQ(K)= 1.266E-06 FIVEPR(K)= 6.393

FUMIGATION X/Q AT THE BOUNDARY: 1.69E-04

EXPONENTIAL TERM AND FREQUENCIES

5.684E-01	5.200E-01	4.072E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
1.372	5.697	7.785	22.857	57.994	95.138	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 60 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE ESE SECTOR.

STABILITY CLASS	WINDSPEED METER/SEC	FREQUENCY PERCENT	DISTANCE METERS	TERRAIN METERS	HT METERS	EFF METERS	PLUME METERS	HT METERS	SIGMA-Y METERS	SIGMA-Z METERS	MEANDER-SY METERS	** CHI/Q VALUES (SEC/CUBIC METER)		
												MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	6.0	0.24	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	2.427E-06	0.000E+00	0.000E+00	1.640E-06
A	8.9	0.24	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	1.640E-06	0.000E+00	0.000E+00	1.264E-06
A	11.6	0.05	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	1.264E-06	0.000E+00	0.000E+00	5.516E-07
A	26.5	0.13	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	5.516E-07	0.000E+00	0.000E+00	
B	3.6	0.08	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	2.858E-06	0.000E+00	0.000E+00	1.715E-06
B	6.0	0.24	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.715E-06	0.000E+00	0.000E+00	1.159E-06
B	8.9	0.53	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.159E-06	0.000E+00	0.000E+00	8.931E-07
B	11.6	0.37	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	8.931E-07	0.000E+00	0.000E+00	3.897E-07
B	26.5	0.19	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	3.897E-07	0.000E+00	0.000E+00	
C	3.6	0.13	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06	0.000E+00	0.000E+00	1.196E-06
C	6.0	0.69	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06	0.000E+00	0.000E+00	8.082E-07
C	8.9	1.57	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07	0.000E+00	0.000E+00	6.230E-07
C	11.6	0.80	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	6.230E-07	0.000E+00	0.000E+00	2.719E-07
C	26.5	0.72	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	2.719E-07	0.000E+00	0.000E+00	
D	0.2	0.00	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05	0.000E+00	0.000E+00	2.224E-06
D	1.7	1.01	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06	0.000E+00	0.000E+00	1.038E-06
D	3.6	2.59	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06	0.000E+00	0.000E+00	6.226E-07
D	6.0	9.48	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07	0.000E+00	0.000E+00	4.207E-07
D	8.9	17.99	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07	0.000E+00	0.000E+00	3.243E-07
D	11.6	11.96	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07	0.000E+00	0.000E+00	1.415E-07
D	26.5	4.03	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07	0.000E+00	0.000E+00	
E	0.3	0.01	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06	0.000E+00	0.000E+00	1.262E-06
E	1.8	0.96	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06	0.000E+00	0.000E+00	5.890E-07
E	3.9	3.68	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07	0.000E+00	0.000E+00	3.534E-07
E	6.5	9.45	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07	0.000E+00	0.000E+00	2.388E-07
E	9.6	15.56	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07	0.000E+00	0.000E+00	1.841E-07
E	12.5	2.96	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07	0.000E+00	0.000E+00	8.032E-08
E	28.5	0.32	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08	0.000E+00	0.000E+00	
F	0.3	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06	0.000E+00	0.000E+00	6.875E-07
F	1.8	0.75	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07	0.000E+00	0.000E+00	3.208E-07
F	3.9	1.76	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07	0.000E+00	0.000E+00	1.925E-07
F	6.5	3.74	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07	0.000E+00	0.000E+00	1.301E-07
F	9.6	3.68	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07	0.000E+00	0.000E+00	1.003E-07
F	12.5	0.48	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.003E-07	0.000E+00	0.000E+00	

G	1.8	0.37	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	0.93	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	1.17	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	1.04	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08
G	12.5	0.05	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	9.405E-09

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 62 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

ESE SECTOR BOUNDARY DISTANCE = 209.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.
THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.
THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.858E-06	2.427E-06	2.224E-06	1.994E-06	1.715E-06	1.640E-06	1.264E-06
0.002	0.009	0.018	0.098	0.338	1.352	1.486	1.726	1.966	2.020
0.00020	0.00080	0.00155	0.00855	0.02954	0.11818	0.12984	0.15083	0.17183	0.17649
1.262E-06	1.196E-06	1.159E-06	1.038E-06	8.931E-07	8.082E-07	6.875E-07	6.230E-07	6.226E-07	5.890E-07
2.980	3.674	4.208	6.797	7.171	8.746	9.493	10.294	19.769	23.452
0.26046	0.32111	0.36776	0.59401	0.62667	0.76429	0.82960	0.89957	1.72762	2.04951
5.516E-07	4.207E-07	3.897E-07	3.534E-07	3.243E-07	3.208E-07	2.719E-07	2.388E-07	1.925E-07	1.841E-07
23.585	41.575	41.762	51.210	63.167	64.929	65.649	81.210	84.947	87.909
2.06117	3.63329	3.64962	4.47533	5.52030	5.67425	5.73723	7.09709	7.42365	7.68255
1.415E-07	1.301E-07	1.003E-07	8.032E-08	6.449E-08	3.010E-08	1.806E-08	1.220E-08	9.405E-09	
91.939	95.623	96.103	96.423	96.797	97.731	98.906	99.947	100.000	
8.03477	8.35665	8.39864	8.42663	8.45928	8.54092	8.64355	8.73452	8.73919	

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (2)= 0.118

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (3)= 0.593

Calculation No. PM-1055 Revision 0

Attachment J

Page 63 of 1411

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 2.047
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 5.670

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
14	1	-11.07050	-16.78363	-1.23898
14	2	-13.01641	-17.43472	-1.45311
14	3	-13.77855	-16.79696	-1.19964
14	4	-14.34482	-17.03831	-1.31771
14	5	-14.95230	NUMXQ(K)= 5	
		2.485E-06	0.087	1.000
		1.550E-06	0.262	3.000
		1.211E-06	0.437	5.000
		8.781E-07	0.874	10.000
		7.304E-07	1.311	15.000
		6.370E-07	1.748	20.000
		5.687E-07	2.185	25.000
		5.135E-07	2.622	30.000
		4.699E-07	3.059	35.000
		4.343E-07	3.496	40.000
		4.045E-07	3.933	45.000
		3.791E-07	4.370	50.000
		3.571E-07	4.807	55.000
		3.378E-07	5.244	60.000
		1.132E-06	0.5	5.72

ANNUAL AVERAGE = 2.19E-12

K= 14 FIVEXQ(K)= 1.132E-06 FIVEPR(K)= 5.721

FUMIGATION X/Q AT THE BOUNDARY: 1.69E-04

EXPONENTIAL TERM AND FREQUENCIES

5.684E-01	5.200E-01	4.072E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
0.667	4.591	6.005	16.423	63.481	96.423	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 64 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE SE SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	6.0	0.04	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	2.427E-06			
A	8.9	0.06	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	1.640E-06			
A	26.5	0.02	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	5.516E-07			
B	3.6	0.08	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	2.858E-06			
B	6.0	0.04	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.715E-06			
B	8.9	0.19	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.159E-06			
B	11.6	0.08	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	8.931E-07			
C	3.6	0.06	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06			
C	6.0	0.55	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06			
C	8.9	0.74	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07			
C	11.6	0.59	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	6.230E-07			
C	26.5	0.13	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	2.719E-07			
D	0.2	0.00	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05			
D	1.7	0.76	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06			
D	3.6	4.10	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06			
D	6.0	11.52	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07			
D	8.9	22.08	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07			
D	11.6	11.54	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07			
D	26.5	3.91	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07			
E	0.3	0.01	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06			
E	1.8	0.83	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06			
E	3.9	3.61	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07			
E	6.5	11.03	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07			
E	9.6	13.83	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07			
E	12.5	1.89	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07			
E	28.5	0.13	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08			
F	0.3	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06			
F	1.8	0.55	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07			
F	3.9	2.00	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07			
F	6.5	3.78	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07			
F	9.6	1.91	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07			
G	1.8	0.28	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08			
G	3.9	1.49	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08			

G	6.5	1.95	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	0.19	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 66 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1 96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

SE SECTOR BOUNDARY DISTANCE = 209.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.858E-06	2.427E-06	2.224E-06	1.994E-06	1.715E-06	1.640E-06	1.262E-06
0.002	0.008	0.014	0.099	0.141	0.906	0.970	1.013	1.076	1.905
0.00019	0.00084	0.00154	0.01087	0.01553	0.09950	0.10650	0.11117	0.11816	0.20913
1.196E-06	1.159E-06	1.038E-06	8.931E-07	8.082E-07	6.875E-07	6.230E-07	6.226E-07	5.890E-07	5.516E-07
2.457	2.649	6.749	6.834	7.578	8.130	8.725	20.241	23.853	23.874
0.26978	0.29077	0.74095	0.75028	0.83192	0.89256	0.95787	2.22210	2.61863	2.62096
4.207E-07	3.534E-07	3.243E-07	3.208E-07	2.719E-07	2.388E-07	1.925E-07	1.841E-07	1.415E-07	1.301E-07
45.949	56.976	68.513	70.510	70.637	84.469	88.251	90.142	94.051	95.963
5.04446	6.25504	7.52160	7.74085	7.75485	9.27332	9.68851	9.89611	10.32529	10.53522
8.032E-08	6.449E-08	3.010E-08	1.806E-08	1.220E-08					
96.091	96.367	97.854	99.809	100.000					
10.54921	10.57954	10.74281	10.95741	10.97840					

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(2) =	0.099
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(3) =	0.740

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 5.041
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 7.737

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
15	1	-11.07050	-16.94794	-1.27152
15	2	-13.01641	-16.61528	-1.16393
15	3	-13.77855	-16.54197	-1.13385
15	4	-14.68142	-16.72098	-1.24294
15	5	-14.95230	NUMXQ(K)= 5	
		2.149E-06	0.110	1.000
		1.438E-06	0.329	3.000
		1.175E-06	0.549	5.000
		8.797E-07	1.098	10.000
		7.352E-07	1.647	15.000
		6.432E-07	2.196	20.000
		5.774E-07	2.745	25.000
		5.270E-07	3.294	30.000
		4.868E-07	3.842	35.000
		4.536E-07	4.391	40.000
		4.255E-07	4.940	45.000
		3.996E-07	5.489	50.000
		3.766E-07	6.038	55.000
		3.564E-07	6.587	60.000
		3.385E-07	7.136	65.000
		3.224E-07	7.685	70.000
		1.220E-06	0.5	4.55

ANNUAL AVERAGE = 5.38E-13

K= 15 FIVEXQ(K)= 1.220E-06 FIVEPR(K)= 4.554

FUMIGATION X/Q AT THE BOUNDARY: 1.69E-04

EXPONENTIAL TERM AND FREQUENCIES

5.684E-01	5.200E-01	4.072E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
0.127	2.210	2.613	10.863	64.767	96.091	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 68 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE SSE SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	3.6	0.02	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	4.045E-06			
A	6.0	0.17	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	2.427E-06			
A	8.9	0.32	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	1.640E-06			
A	11.6	0.02	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	1.264E-06			
A	26.5	0.02	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	5.516E-07			
B	3.6	0.06	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	2.858E-06			
B	6.0	0.48	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.715E-06			
B	8.9	0.71	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.159E-06			
B	11.6	0.11	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	8.931E-07			
C	3.6	0.48	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06			
C	6.0	2.16	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06			
C	8.9	2.01	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07			
C	11.6	0.37	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	6.230E-07			
D	0.2	0.00	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05			
D	1.7	1.08	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06			
D	3.6	8.31	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06			
D	6.0	20.04	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07			
D	8.9	19.82	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07			
D	11.6	5.23	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07			
D	26.5	1.36	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07			
E	0.3	0.01	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06			
E	1.8	0.73	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06			
E	3.9	4.38	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07			
E	6.5	11.10	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07			
E	9.6	10.11	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07			
E	12.5	0.93	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07			
E	28.5	0.22	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08			
F	0.3	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06			
F	1.8	0.48	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07			
F	3.9	2.09	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07			
F	6.5	2.72	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07			
F	9.6	0.69	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07			
F	12.5	0.11	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.003E-07			

Calculation No. PM-1055 Revision 0**Attachment J****Page 69 of 1411**

G	1.8	0.41	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	1.27	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	1.84	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	0.11	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08
G	28.5	0.02	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	4.104E-09

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 70 of 1411

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

SSE SECTOR BOUNDARY DISTANCE = 209.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	4.045E-06	2.858E-06	2.427E-06	2.224E-06	1.994E-06	1.715E-06	1.640E-06
0.002	0.008	0.013	0.035	0.100	0.272	1.352	1.827	2.302	2.626
0.00026	0.00083	0.00142	0.00375	0.01075	0.02941	0.14604	0.19735	0.24867	0.28366
1.264E-06	1.262E-06	1.196E-06	1.159E-06	1.038E-06	8.931E-07	8.082E-07	6.875E-07	6.230E-07	6.226E-07
2.648	3.382	5.542	6.254	14.568	14.676	16.685	17.160	17.527	37.568
0.28599	0.36529	0.59855	0.67552	1.57354	1.58520	1.80213	1.85344	1.89310	4.05768
5.890E-07	5.516E-07	4.207E-07	3.534E-07	3.243E-07	3.208E-07	2.388E-07	1.925E-07	1.841E-07	1.415E-07
41.951	41.973	61.798	72.898	78.124	80.219	90.325	93.046	93.975	95.335
4.53118	4.53352	6.67477	7.87369	8.43816	8.66442	9.75604	10.04994	10.15024	10.29718
1.301E-07	1.003E-07	8.032E-08	6.449E-08	3.010E-08	1.806E-08	1.220E-08	4.104E-09		
96.026	96.134	96.350	96.761	98.035	99.870	99.978	100.000		
10.37183	10.38349	10.40681	10.45113	10.58875	10.78701	10.79868	10.80101		

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.197
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 4.528

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(.5)= 6.671

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
16	1	-11.07050	-16.67065	-1.22977
16	2	-13.12558	-15.69990	-0.89302
16	3	-13.77855	-16.43273	-1.23363
16	4	-14.34482	-17.31614	-1.75559
16	5	-14.68142	NUMXQ(K)= 5	
		2.502E-06	0.108	1.000
		1.728E-06	0.324	3.000
		1.480E-06	0.540	5.000
		1.182E-06	1.080	10.000
		1.023E-06	1.620	15.000
		8.846E-07	2.160	20.000
		7.868E-07	2.700	25.000
		7.127E-07	3.240	30.000
		6.539E-07	3.780	35.000
		6.056E-07	4.320	40.000
		5.553E-07	4.860	45.000
		5.074E-07	5.401	50.000
		4.669E-07	5.941	55.000
		4.320E-07	6.481	60.000
		1.516E-06	0.5	4.63

ANNUAL AVERAGE = 2.60E-12

K= 16 FIVEXQ(K)= 1.516E-06 FIVEPR(K)= 4.629

FUMIGATION X/Q AT THE BOUNDARY: 1.69E-04

EXPONENTIAL TERM AND FREQUENCIES

5.684E-01	5.200E-01	4.072E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
0.561	5.572	6.932	13.028	68.876	96.350	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 72 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE ALL SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	1.7	0.01	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	8.668E-06			
A	3.6	0.51	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	4.045E-06			
A	6.0	0.53	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	2.427E-06			
A	8.9	0.28	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	1.640E-06			
A	11.6	0.06	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	1.264E-06			
A	26.5	0.03	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	5.516E-07			
B	1.7	0.05	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	6.124E-06			
B	3.6	0.47	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	2.858E-06			
B	6.0	0.54	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.715E-06			
B	8.9	0.44	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.159E-06			
B	11.6	0.12	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	8.931E-07			
B	26.5	0.03	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	3.897E-07			
C	1.7	0.08	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	4.272E-06			
C	3.6	0.77	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06			
C	6.0	1.33	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06			
C	8.9	1.04	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07			
C	11.6	0.30	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	6.230E-07			
C	26.5	0.13	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	2.719E-07			
D	0.2	0.00	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05			
D	1.7	2.07	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06			
D	3.6	9.39	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06			
D	6.0	15.72	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07			
D	8.9	12.23	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07			
D	11.6	4.24	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07			
D	26.5	1.39	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07			
E	0.3	0.01	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06			
E	1.8	1.97	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06			
E	3.9	8.90	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07			
E	6.5	13.85	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07			
E	9.6	9.53	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07			
E	12.5	1.29	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07			
E	28.5	0.23	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08			
F	0.3	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06			
F	1.8	1.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07			

Calculation No. PM-1055 Revision 0**Attachment J****Page 73 of 1411**

F	3.9	3.14	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07
F	6.5	3.52	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07
F	9.6	1.55	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07
F	12.5	0.16	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.003E-07
F	28.5	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.375E-08
G	1.8	0.43	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	1.17	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	1.14	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	0.31	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08
G	12.5	0.01	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	9.405E-09
G	28.5	0.00	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	4.104E-09

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 74 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

DIRECTION-INDEPENDENT (S.R.P 2.3.4) MODEL.

MINIMUM BOUNDARY DISTANCE = 209.0 METERS.

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED:

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	8.668E-06	6.124E-06	4.813E-06	4.272E-06	4.045E-06	2.858E-06	2.427E-06	2.224E-06
0.005	0.019	0.026	0.072	0.084	0.161	0.674	1.145	1.677	3.744
0.00467	0.01866	0.02566	0.07231	0.08397	0.16094	0.67410	1.14527	1.67709	3.74370
1.994E-06	1.715E-06	1.640E-06	1.264E-06	1.262E-06	1.196E-06	1.159E-06	1.038E-06	8.931E-07	8.082E-07
4.509	5.052	5.330	5.388	7.354	8.684	9.125	18.516	18.637	19.680
4.50877	5.05225	5.32982	5.38813	7.35445	8.68399	9.12484	18.51558	18.63687	19.67951
6.875E-07	6.230E-07	6.226E-07	5.890E-07	5.516E-07	4.207E-07	3.897E-07	3.534E-07	3.243E-07	3.208E-07
20.689	20.993	36.712	45.608	45.636	57.865	57.900	71.746	75.987	79.129
20.68949	20.99272	36.71161	45.60785	45.63584	57.86527	57.90026	71.74612	75.98666	79.12857
2.719E-07	2.388E-07	1.925E-07	1.841E-07	1.415E-07	1.301E-07	1.003E-07	8.032E-08	6.449E-08	4.375E-08
79.254	88.781	92.298	93.593	94.980	96.534	96.695	96.923	97.357	97.369
79.25452	88.78055	92.29800	93.59254	94.98039	96.53386	96.69480	96.92339	97.35724	97.36890
3.010E-08	1.806E-08	1.220E-08	9.405E-09	4.104E-09					
98.542	99.678	99.986	99.995	100.000					
98.54216	99.67810	99.98599	99.99532	99.99998					

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS

Calculation No. PM-1055 Revision 0**Attachment J****Page 75 of 1411**

SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

3.662E-06	1.000	1.000
2.436E-06	3.000	3.000
1.977E-06	5.000	5.000
1.446E-06	10.000	10.000
1.171E-06	15.000	15.000
9.978E-07	20.000	20.000
8.845E-07	25.000	25.000
7.938E-07	30.000	30.000
7.180E-07	35.000	35.000
6.529E-07	40.000	40.000
5.956E-07	45.000	45.000
5.478E-07	50.000	50.000
5.043E-07	55.000	55.000
4.636E-07	60.000	60.000
4.249E-07	65.000	65.000
3.877E-07	70.000	70.000
3.511E-07	75.000	75.000

1.977E-06	5.0	5.00
-----------	-----	------

K= 17 FIVEXQ(K)= 1.977E-06 FIVEPR(K)= 5.000

FUMIGATION X/Q AT THE BOUNDARY: 1.69E-04

EXPONENTIAL TERM AND FREQUENCIES

5.684E-01	5.200E-01	4.072E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
1.416	5.059	6.718	16.125	61.163	96.935	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 76 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

FIVE PERCENT OVERALL SITE LIMIT

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	8.668E-06	6.124E-06	4.813E-06	4.272E-06	4.045E-06	2.858E-06	2.427E-06	2.224E-06
0.005	0.019	0.026	0.072	0.084	0.161	0.674	1.145	1.677	3.744
0.00467	0.01866	0.02566	0.07231	0.08397	0.16094	0.67410	1.14527	1.67709	3.74370
1.994E-06	1.715E-06	1.640E-06	1.264E-06	1.262E-06	1.196E-06	1.159E-06	1.038E-06	8.931E-07	8.082E-07
4.509	5.052	5.330	5.388	7.354	8.684	9.125	18.516	18.637	19.680
4.50877	5.05225	5.32982	5.38813	7.35445	8.68399	9.12484	18.51558	18.63688	19.67952
6.875E-07	6.230E-07	6.226E-07	5.890E-07	5.516E-07	4.207E-07	3.897E-07	3.534E-07	3.243E-07	3.208E-07
20.689	20.993	36.712	45.608	45.636	57.865	57.900	71.746	75.987	79.129
20.68950	20.99273	36.71161	45.60786	45.63585	57.86527	57.90026	71.74612	75.98665	79.12857
2.719E-07	2.388E-07	1.925E-07	1.841E-07	1.415E-07	1.301E-07	1.003E-07	8.032E-08	6.449E-08	4.375E-08
79.255	88.781	92.298	93.593	94.980	96.534	96.695	96.923	97.357	97.369
79.25453	88.78056	92.29800	93.59256	94.98041	96.53387	96.69481	96.92340	97.35724	97.36890
3.010E-08	1.806E-08	1.220E-08	9.405E-09	4.104E-09					
98.542	99.678	99.986	99.995	100.000					
98.54216	99.67809	99.98598	99.99532	99.99998					

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS

Calculation No. PM-1055 Revision 0

SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

Attachment J

Page 77 of 1411

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
18	1	-11.07050	-14.64728	-0.91538
18	2	-13.01641	-14.54922	-0.86034
18	3	-13.77855	-14.42414	-0.72071
18	4	-14.34482	-14.41743	-0.65976
18	5	-14.95230	NUMXQ(K) = 5	
		3.662E-06	1.000	1.000
		2.436E-06	3.000	3.000
		1.977E-06	5.000	5.000
		1.446E-06	10.000	10.000
		1.171E-06	15.000	15.000
		9.978E-07	20.000	20.000
		8.845E-07	25.000	25.000
		7.938E-07	30.000	30.000
		7.180E-07	35.000	35.000
		6.529E-07	40.000	40.000
		5.956E-07	45.000	45.000
		5.478E-07	50.000	50.000
		5.043E-07	55.000	55.000
		4.636E-07	60.000	60.000
		4.249E-07	65.000	65.000
		3.877E-07	70.000	70.000
		3.511E-07	75.000	75.000
		1.977E-06	5.0	5.00

K= 18 FIVEXQ(K)= 1.977E-06 FIVEPR(K)= 5.000

K	HIGHPR	PR	GRNDVT(K)
1	-3.06052	0.11048	6.21119
2	-2.00327	2.25740	3.52599
3	-2.79824	0.25691	3.10868
4	-2.68650	0.36103	3.53145
5	-2.57624	0.49942	4.76778
6	-2.75266	0.29557	4.27759
7	-3.06855	0.10756	5.37148
8	-3.25087	0.05753	5.07527
9	-3.17144	0.07585	10.00153
10	-3.29988	0.04837	5.86355
11	-3.25284	0.05714	4.96796
12	-3.40963	0.03253	4.95848
13	-3.27701	0.05246	7.82046
14	-3.20434	0.06769	8.73919
15	-3.25156	0.05739	10.97840
16	-3.13645	0.08551	10.80101

K	HOURS(K)	TOTHR
1	9.67833	9.67833
2	197.74830	207.42660
3	22.50566	229.93230

Calculation No. PM-1055 Revision 0
Attachment J
Page 78 of 1411

4	31.62634	261.55860
5	43.74879	305.30740
6	25.89224	331.19960
7	9.42196	340.62160
8	5.03966	345.66130
9	6.64419	352.30550
10	4.23714	356.54260
11	5.00520	361.54780
12	2.84982	364.39760
13	4.59585	368.99350
14	5.92991	374.92340
15	5.02765	379.95100
16	7.49057	387.44160

K	FIVEXQ	SVANN	SLTIME	TIMINT	I	TIME	XQT
1	1.547E-06	1.689E-12	-1.6371	-12.2445	1	8.0	-15.64881
					2	16.0	-16.78359
					3	72.0	-19.24598
					4	624.0	-22.78136
2	1.537E-06	3.713E-12	-1.5425	-12.3165	1	8.0	-15.52392
					2	16.0	-16.59307
					3	72.0	-18.91303
					4	624.0	-22.24393
3	1.997E-06	8.692E-12	-1.4722	-12.1034	1	8.0	-15.16480
					2	16.0	-16.18528
					3	72.0	-18.39963
					4	624.0	-21.57890
4	2.335E-06	1.440E-11	-1.4307	-11.9759	1	8.0	-14.95100
					2	16.0	-15.94269
					3	72.0	-18.09457
					4	624.0	-21.18416
5	2.724E-06	2.875E-11	-1.3666	-11.8663	1	8.0	-14.70800
					2	16.0	-15.65523
					3	72.0	-17.71066
					4	624.0	-20.66175
6	2.196E-06	1.628E-11	-1.4087	-12.0523	1	8.0	-14.98169
					2	16.0	-15.95815
					3	72.0	-18.07700
					4	624.0	-21.11914
7	1.574E-06	4.584E-12	-1.5202	-12.3082	1	8.0	-15.46926
					2	16.0	-16.52296
					3	72.0	-18.80940
					4	624.0	-22.09217
8	1.303E-06	7.246E-13	-1.7176	-12.3606	1	8.0	-15.93221
					2	16.0	-17.12275

Calculation No. PM-1055 Revision 0
Attachment J
Page 79 of 1411

9	1.473E-06	2.123E-12	-1.6041	-12.3162	3	72.0	-19.70614
					4	624.0	-23.41525
					1	8.0	-15.65174
					2	16.0	-16.76358
					3	72.0	-19.17620
					4	624.0	-22.64013
10	1.246E-06	1.616E-12	-1.6166	-12.4754	3	72.0	-19.17620
					4	624.0	-22.64013
					1	8.0	-15.83700
					2	16.0	-16.95753
					3	72.0	-19.38899
					4	624.0	-22.87996
11	1.217E-06	1.276E-12	-1.6420	-12.4812	3	72.0	-19.38899
					4	624.0	-22.87996
					1	8.0	-15.89557
					2	16.0	-17.03369
					3	72.0	-19.50333
					4	624.0	-23.04913
12	1.120E-06	1.335E-12	-1.6268	-12.5743	3	72.0	-19.50333
					4	624.0	-23.04913
					1	8.0	-15.95707
					2	16.0	-17.08465
					3	72.0	-19.53142
					4	624.0	-23.04437
13	1.266E-06	3.916E-12	-1.5130	-12.5309	3	72.0	-19.53142
					4	624.0	-23.04437
					1	8.0	-15.67704
					2	16.0	-16.72577
					3	72.0	-19.00142
					4	624.0	-22.26869
14	1.132E-06	2.187E-12	-1.5691	-12.6035	3	72.0	-19.00142
					4	624.0	-22.26869
					1	8.0	-15.86645
					2	16.0	-16.95410
					3	72.0	-19.31421
					4	624.0	-22.70275
15	1.220E-06	5.385E-13	-1.7452	-12.4071	3	72.0	-19.31421
					4	624.0	-22.70275
					1	8.0	-16.03603
					2	16.0	-17.24569
					3	72.0	-19.87056
					4	624.0	-23.63922
16	1.516E-06	2.599E-12	-1.5834	-12.3018	3	72.0	-19.87056
					4	624.0	-23.63922
					1	8.0	-15.59427
					2	16.0	-16.69177
					3	72.0	-19.07328
					4	624.0	-22.49253
17	1.977E-06	2.875E-11	-1.3284	-12.2130	3	72.0	-19.07328
					4	624.0	-22.49253
					1	8.0	-14.97530
					2	16.0	-15.89606
					3	72.0	-17.89405
					4	624.0	-20.76266
18	1.977E-06	2.875E-11	-1.3284	-12.2130	3	72.0	-17.89405
					4	624.0	-20.76266
					1	8.0	-14.97530
					2	16.0	-15.89606
					3	72.0	-17.89404
					4	624.0	-20.76266

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 80 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

RELATIVE CONCENTRATION (X/Q) VALUES (SEC/CUBIC METER)

		VERSUS AVERAGING TIME						HOURS PER YEAR MAX 0-2 HR X/Q IS EXCEEDED IN SECTOR		DOWNWIND SECTOR
DOWNWIND DISTANCE SECTOR (METERS)		0-2 HOURS	0-8 HOURS	8-24 HOURS	1-4 DAYS	4-30 DAYS	ANNUAL AVERAGE			
S 209.		1.55E-06	1.60E-07	5.14E-08	4.38E-09	1.28E-10	1.69E-12	9.7		S
SSW 209.		1.54E-06	1.81E-07	6.22E-08	6.11E-09	2.19E-10	3.71E-12	197.7		SSW
SW 209.		2.00E-06	2.59E-07	9.35E-08	1.02E-08	4.25E-10	8.69E-12	22.5		SW
WSW 209.		2.33E-06	3.21E-07	1.19E-07	1.39E-08	6.31E-10	1.44E-11	31.6		WSW
W 209.		2.72E-06	4.10E-07	1.59E-07	2.03E-08	1.06E-09	2.88E-11	43.7		W
WNW 209.		2.20E-06	3.12E-07	1.17E-07	1.41E-08	6.73E-10	1.63E-11	25.9		WNW
NW 209.		1.57E-06	1.91E-07	6.67E-08	6.78E-09	2.54E-10	4.58E-12	9.4		NW
NNW 209.		1.30E-06	1.20E-07	3.66E-08	2.77E-09	6.77E-11	7.25E-13	5.0		NNW
N 209.		1.47E-06	1.59E-07	5.24E-08	4.70E-09	1.47E-10	2.12E-12	6.6		N
NNE 209.		1.25E-06	1.32E-07	4.32E-08	3.80E-09	1.16E-10	1.62E-12	4.2		NNE
NE 209.		1.22E-06	1.25E-07	4.00E-08	3.39E-09	9.77E-11	1.28E-12	5.0		NE
ENE 209.		1.12E-06	1.17E-07	3.80E-08	3.29E-09	9.82E-11	1.33E-12	2.8		ENE
E 209.		1.27E-06	1.55E-07	5.45E-08	5.59E-09	2.13E-10	3.92E-12	4.6		E
ESE 209.		1.13E-06	1.29E-07	4.33E-08	4.09E-09	1.38E-10	2.19E-12	5.9		ESE
SE 209.		1.22E-06	1.09E-07	3.24E-08	2.35E-09	5.42E-11	5.38E-13	5.0		SE
SSE 209.		1.52E-06	1.69E-07	5.63E-08	5.21E-09	1.70E-10	2.60E-12	7.5		SSE
MAX X/Q		2.72E-06							TOTAL HOURS AROUND SITE: 387.4	
SRP 2.3.4 209.		1.98E-06	3.14E-07	1.25E-07	1.69E-08	9.61E-10	2.88E-11			
SITE LIMIT		1.98E-06	3.14E-07	1.25E-07	1.69E-08	9.61E-10	2.88E-11			

0.5 PERCENT X/Q TO AN INDIVIDUAL IS LIMITING.

X/Q VALUES (SEC/CUBIC METER) FOR FUMIGATION AT THE BOUNDARY:

DOWNWIND DISTANCE FUMIGATION

SECTOR (METERS)	X/Q
S 209.	1.69E-04
SSW 209.	1.69E-04
SW 209.	1.69E-04
WSW 209.	1.69E-04
W 209.	1.69E-04
WNW 209.	1.69E-04
NW 209.	1.69E-04
NNW 209.	1.69E-04
N 209.	1.69E-04
NNE 209.	1.69E-04
NE 209.	1.69E-04
ENE 209.	1.69E-04
E 209.	1.69E-04

Calculation No. PM-1055 Revision 0**Attachment J****Page 81 of 1411**

ESE	209.	1.69E-04
SE	209.	1.69E-04
SSE	209.	1.69E-04

****NOTE**:** VALUES ON THIS PAGE ARE APPROXIMATIONS ONLY.
CHECK THE REASONABLENESS OF THE ENVELOPES
COMPUTED FOR THE 0-2 HOUR VALUES. FOR ANY
FAULTY ENVELOPES, ADJUST THE ABOVE VALUES.

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 82 of 1411

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE S SECTOR.

STABILITY CLASS	WINDSPEED METER/SEC	FREQUENCY PERCENT	DISTANCE METERS	TERRAIN METERS	HT METERS	EFF METERS	PLUME METERS	HT METERS	SIGMA-Y METERS	SIGMA-Z METERS	MEANDER-SY METERS	** CHI/Q VALUES (SEC/CUBIC METER)	USED	
AT 131.4 METERS												CA=1292.SQ.METERS		
												MEANDER	BLDG WAKE	
A	3.6	0.23	500.		0.		131.		100.2	123.6	0.0	0.000E+00	0.000E+00	4.045E-06
A	8.9	0.08	500.		0.		131.		100.2	123.6	0.0	0.000E+00	0.000E+00	1.640E-06
A	11.6	0.08	500.		0.		131.		100.2	123.6	0.0	0.000E+00	0.000E+00	1.264E-06
B	3.6	0.49	900.		0.		131.		128.1	98.0	0.0	0.000E+00	0.000E+00	2.858E-06
B	6.0	0.15	900.		0.		131.		128.1	98.0	0.0	0.000E+00	0.000E+00	1.715E-06
B	8.9	0.38	900.		0.		131.		128.1	98.0	0.0	0.000E+00	0.000E+00	1.159E-06
B	11.6	0.04	900.		0.		131.		128.1	98.0	0.0	0.000E+00	0.000E+00	8.931E-07
C	3.6	1.16	2000.		0.		131.		200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06
C	6.0	1.58	2000.		0.		131.		200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06
C	8.9	0.68	2000.		0.		131.		200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07
C	11.6	0.15	2000.		0.		131.		200.0	114.9	0.0	0.000E+00	0.000E+00	6.230E-07
C	26.5	0.04	2000.		0.		131.		200.0	114.9	0.0	0.000E+00	0.000E+00	2.719E-07
D	0.2	0.01	4000.		0.		131.		263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05
D	1.7	2.22	4000.		0.		131.		263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06
D	3.6	12.39	4000.		0.		131.		263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06
D	6.0	19.57	4000.		0.		131.		263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07
D	8.9	14.87	4000.		0.		131.		263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07
D	11.6	2.74	4000.		0.		131.		263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07
D	26.5	0.56	4000.		0.		131.		263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07
E	0.3	0.02	9000.		0.		131.		389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06
E	1.8	2.25	9000.		0.		131.		389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06
E	3.9	8.83	9000.		0.		131.		389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07
E	6.5	13.78	9000.		0.		131.		389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07
E	9.6	5.86	9000.		0.		131.		389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07
E	12.5	0.86	9000.		0.		131.		389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07
E	28.5	0.26	9000.		0.		131.		389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08
F	0.3	0.01	90000.		0.		131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06
F	1.8	0.98	90000.		0.		131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07
F	3.9	3.72	90000.		0.		131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07
F	6.5	3.04	90000.		0.		131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07
F	9.6	0.15	90000.		0.		131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07
F	12.5	0.04	90000.		0.		131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	1.003E-07
G	1.8	0.41	90000.		0.		131.		1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08

Calculation No. PM-1055 Revision 0**Attachment J****Page 83 of 1411**

G	3.9	1.77	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	0.60	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	0.04	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 84 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

S SECTOR BOUNDARY DISTANCE = 280.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	4.045E-06	2.858E-06	2.224E-06	1.994E-06	1.715E-06	1.640E-06	1.264E-06
0.005	0.021	0.032	0.258	0.746	2.961	4.126	4.276	4.351	4.426
0.00031	0.00131	0.00201	0.01600	0.04633	0.18394	0.25625	0.26558	0.27025	0.27491
1.262E-06	1.196E-06	1.159E-06	1.038E-06	8.931E-07	8.082E-07	6.875E-07	6.230E-07	6.226E-07	5.890E-07
6.679	8.257	8.632	21.025	21.062	21.738	22.715	22.865	42.430	51.255
0.41486	0.51283	0.53616	1.30589	1.30822	1.35021	1.41085	1.42018	2.63543	3.18357
4.207E-07	3.534E-07	3.243E-07	3.208E-07	2.719E-07	2.388E-07	1.925E-07	1.841E-07	1.415E-07	1.301E-07
66.127	79.909	82.650	86.368	86.406	92.264	95.306	96.170	96.733	96.883
4.10725	4.96329	5.13356	5.36448	5.36681	5.73069	5.91962	5.97327	6.00826	6.01759
1.003E-07	8.032E-08	6.449E-08	3.010E-08	1.806E-08	1.220E-08				
96.921	97.183	97.597	99.362	99.962	100.000				
6.01992	6.03625	6.06191	6.17153	6.20886	6.21119				

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2) = 0.256

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3) = 1.304

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 3.181
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 4.960

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
1	1	-11.07050	-16.47142	-1.19518
1	2	-13.12558	-16.30722	-1.13653
1	3	-13.77855	-17.18353	-1.53040
1	4	-14.34482	-18.94210	-2.47847
1	5	-14.85564	NUMXQ(K)= 5	
		3.332E-06	0.062	1.000
		2.250E-06	0.186	3.000
		1.857E-06	0.311	5.000
		1.419E-06	0.621	10.000
		1.201E-06	0.932	15.000
		1.061E-06	1.242	20.000
		9.350E-07	1.553	25.000
		8.354E-07	1.863	30.000
		7.578E-07	2.174	35.000
		6.951E-07	2.484	40.000
		6.430E-07	2.795	45.000
		5.990E-07	3.106	50.000
		5.446E-07	3.416	55.000
		4.938E-07	3.727	60.000
		4.506E-07	4.037	65.000
		4.134E-07	4.348	70.000
		3.812E-07	4.658	75.000
		1.547E-06	0.5	8.05

ANNUAL AVERAGE = 1.81E-10

K= 1 FIVEXQ(K)= 1.547E-06 FIVEPR(K)= 8.050

FUMIGATION X/Q AT THE BOUNDARY: 1.30E-04

EXPONENTIAL TERM AND FREQUENCIES

5.684E-01	5.200E-01	4.072E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
0.376	3.981	5.032	12.967	65.322	97.183	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 86 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE SSW SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	3.6	0.60	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	4.045E-06			
A	6.0	0.60	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	2.427E-06			
A	8.9	0.26	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	1.640E-06			
A	11.6	0.13	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	1.264E-06			
B	1.7	0.13	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	6.124E-06			
B	3.6	1.52	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	2.858E-06			
B	6.0	0.99	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.715E-06			
B	8.9	0.20	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.159E-06			
B	11.6	0.13	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	8.931E-07			
C	1.7	0.33	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	4.272E-06			
C	3.6	1.46	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06			
C	6.0	1.26	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06			
C	8.9	0.53	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07			
C	11.6	0.07	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	6.230E-07			
C	26.5	0.26	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	2.719E-07			
D	0.2	0.01	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05			
D	1.7	3.84	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06			
D	3.6	13.96	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06			
D	6.0	23.09	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07			
D	8.9	10.19	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07			
D	11.6	1.79	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07			
D	26.5	0.46	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07			
E	0.3	0.02	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06			
E	1.8	2.91	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06			
E	3.9	10.85	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07			
E	6.5	13.30	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07			
E	9.6	2.51	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07			
E	12.5	0.53	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07			
E	28.5	0.07	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08			
F	0.3	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06			
F	1.8	1.26	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07			
F	3.9	2.51	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07			
F	6.5	1.65	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07			
F	9.6	0.07	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07			

G	1.8	0.93	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	1.26	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	0.33	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 88 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

LOW POPULATION ZONE CALCULATIONS:

SSW SECTOR BOUNDARY DISTANCE = 280.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	6.124E-06	4.813E-06	4.272E-06	4.045E-06	2.858E-06	2.427E-06	2.224E-06	1.994E-06
0.009	0.029	0.162	0.176	0.507	1.102	2.624	3.219	7.056	8.511
0.00031	0.00104	0.00570	0.00621	0.01788	0.03887	0.09252	0.11351	0.24880	0.30011
1.715E-06	1.640E-06	1.264E-06	1.262E-06	1.196E-06	1.159E-06	1.038E-06	8.931E-07	8.082E-07	6.875E-07
9.504	9.768	9.901	12.811	14.068	14.267	28.225	28.357	28.886	30.143
0.33510	0.34443	0.34909	0.45172	0.49604	0.50304	0.99520	0.99987	1.01853	1.06285
6.230E-07	6.226E-07	5.890E-07	4.207E-07	3.534E-07	3.243E-07	3.208E-07	2.719E-07	2.388E-07	1.925E-07
30.209	53.296	64.145	74.333	87.630	89.416	91.929	92.194	94.708	96.362
1.06518	1.87923	2.26176	2.62097	3.08981	3.15279	3.24142	3.25075	3.33939	3.39770
1.841E-07	1.415E-07	1.301E-07	8.032E-08	6.449E-08	3.010E-08	1.806E-08			
96.891	97.354	97.420	97.486	98.412	99.669	100.000			
3.41636	3.43269	3.43502	3.43736	3.47001	3.51433	3.52599			

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.249
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 0.994

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 2.259
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 3.087

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
2	1	-11.07050	-16.20624	-1.13559
2	2	-13.01641	-17.47309	-1.58660
2	3	-13.77855	-17.82714	-1.73864
2	4	-14.34482	-21.93911	-3.79166
2	5	-14.85564	NUMXQ(K)= 5	
		4.290E-06	0.035	1.000
		3.004E-06	0.106	3.000
		2.517E-06	0.176	5.000
		1.855E-06	0.353	10.000
		1.490E-06	0.529	15.000
		1.268E-06	0.705	20.000
		1.115E-06	0.881	25.000
		9.970E-07	1.058	30.000
		9.001E-07	1.234	35.000
		8.223E-07	1.410	40.000
		7.583E-07	1.587	45.000
		7.044E-07	1.763	50.000
		6.583E-07	1.939	55.000
		6.184E-07	2.116	60.000
		5.767E-07	2.292	65.000
		5.119E-07	2.468	70.000
		4.575E-07	2.644	75.000
		4.114E-07	2.821	80.000
		3.719E-07	2.997	85.000
		1.537E-06	0.5	14.18

ANNUAL AVERAGE = 3.97E-10

K= 2 FIVEXQ(K)= 1.537E-06 FIVEPR(K)=14.180

FUMIGATION X/Q AT THE BOUNDARY: 1.30E-04

EXPONENTIAL TERM AND FREQUENCIES

5.684E-01	5.200E-01	4.072E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
1.588	5.491	8.467	13.973	67.300	97.486	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 90 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE SW SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN HT	EFF PLUME HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS									CA=1292.SQ.METERS		
A	3.6	1.73	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	4.045E-06
A	6.0	1.50	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	2.427E-06
A	8.9	0.68	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	1.640E-06
B	1.7	0.15	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	6.124E-06
B	3.6	1.35	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	2.858E-06
B	6.0	0.98	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.715E-06
B	8.9	0.15	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.159E-06
B	11.6	0.08	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	8.931E-07
C	1.7	0.90	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	4.272E-06
C	3.6	2.10	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06
C	6.0	0.68	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06
C	8.9	0.30	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07
D	0.2	0.02	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05
D	1.7	8.10	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06
D	3.6	17.86	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06
D	6.0	18.83	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07
D	8.9	6.38	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07
D	11.6	0.98	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07
D	26.5	0.90	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07
E	0.3	0.02	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06
E	1.8	2.70	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06
E	3.9	11.25	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07
E	6.5	11.71	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07
E	9.6	1.95	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07
E	12.5	0.60	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07
E	28.5	0.08	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08
F	0.3	0.02	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06
F	1.8	1.65	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07
F	3.9	2.55	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07
F	6.5	0.98	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07
F	9.6	0.08	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07
G	1.8	0.83	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	1.65	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08

G	6.5	0.30	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
---	-----	------	--------	----	------	--------	------	-----	-----------	-----------	-----------

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 92 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

SW SECTOR BOUNDARY DISTANCE = 280.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	6.124E-06	4.813E-06	4.272E-06	4.045E-06	2.858E-06	2.427E-06	2.224E-06	1.994E-06
0.018	0.038	0.188	0.207	1.107	2.833	4.183	5.684	13.788	15.888
0.00057	0.00117	0.00583	0.00642	0.03441	0.08806	0.13005	0.17670	0.42861	0.49392
1.715E-06	1.640E-06	1.262E-06	1.196E-06	1.159E-06	1.038E-06	8.931E-07	8.082E-07	6.875E-07	6.226E-07
16.864	17.539	20.240	20.916	21.066	38.923	38.999	39.299	40.949	59.783
0.52424	0.54524	0.62921	0.65020	0.65487	1.21001	1.21234	1.22167	1.27298	1.85845
5.890E-07	4.207E-07	3.534E-07	3.243E-07	3.208E-07	2.388E-07	1.925E-07	1.841E-07	1.415E-07	1.301E-07
71.037	77.415	89.120	90.096	92.647	94.598	95.573	96.173	97.074	97.149
2.20833	2.40659	2.77047	2.80079	2.88009	2.94074	2.97106	2.98972	3.01771	3.02005
8.032E-08	6.449E-08	3.010E-08	1.806E-08						
97.224	98.049	99.700	100.000						
3.02238	3.04804	3.09935	3.10868						

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(2)=	0.088
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(3)=	0.428

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4) = 1.209
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5) = 2.206
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(6) = 2.768

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
3	1	-11.07050	-15.76030	-1.06849
3	2	-12.41800	-16.16917	-1.19920
3	3	-13.01641	-18.36423	-2.03412
3	4	-13.77855	-19.06598	-2.34541
3	5	-14.34482	-24.96016	-5.27354
3	6	-14.85564	NUMXQ(K) = 6	
		5.539E-06	0.031	1.000
		3.964E-06	0.093	3.000
		3.295E-06	0.155	5.000
		2.529E-06	0.311	10.000
		2.097E-06	0.466	15.000
		1.710E-06	0.622	20.000
		1.453E-06	0.777	25.000
		1.268E-06	0.933	30.000
		1.127E-06	1.088	35.000
		1.012E-06	1.243	40.000
		9.092E-07	1.399	45.000
		8.246E-07	1.554	50.000
		7.539E-07	1.710	55.000
		6.940E-07	1.865	60.000
		6.424E-07	2.021	65.000
		5.976E-07	2.176	70.000
		5.221E-07	2.332	75.000
		4.518E-07	2.487	80.000
		3.938E-07	2.642	85.000
		1.997E-06	0.5	16.08

ANNUAL AVERAGE = 9.27E-10

K= 3 FIVEXQ(K)= 1.997E-06 FIVEPR(K)=16.084

FUMIGATION X/Q AT THE BOUNDARY: 1.30E-04

EXPONENTIAL TERM AND FREQUENCIES

5.684E-01	5.200E-01	4.072E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
3.902	7.878	10.580	15.851	68.917	97.224	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 94 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE WSW SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q	VALUES (SEC/CUBIC METER)	
CLASS	METER/SEC	PERCENT	METERS	METERS			METERS		METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	3.6	2.58	500.	0.			131.		100.2	123.6	0.0	0.000E+00	0.000E+00	4.045E-06
A	6.0	1.92	500.	0.			131.		100.2	123.6	0.0	0.000E+00	0.000E+00	2.427E-06
A	8.9	1.19	500.	0.			131.		100.2	123.6	0.0	0.000E+00	0.000E+00	1.640E-06
A	11.6	0.07	500.	0.			131.		100.2	123.6	0.0	0.000E+00	0.000E+00	1.264E-06
B	1.7	0.59	900.	0.			131.		128.1	98.0	0.0	0.000E+00	0.000E+00	6.124E-06
B	3.6	1.65	900.	0.			131.		128.1	98.0	0.0	0.000E+00	0.000E+00	2.858E-06
B	6.0	0.99	900.	0.			131.		128.1	98.0	0.0	0.000E+00	0.000E+00	1.715E-06
B	8.9	0.07	900.	0.			131.		128.1	98.0	0.0	0.000E+00	0.000E+00	1.159E-06
C	1.7	0.99	2000.	0.			131.		200.0	114.9	0.0	0.000E+00	0.000E+00	4.272E-06
C	3.6	2.44	2000.	0.			131.		200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06
C	6.0	1.12	2000.	0.			131.		200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06
C	8.9	0.20	2000.	0.			131.		200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07
D	0.2	0.02	4000.	0.			131.		263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05
D	1.7	7.86	4000.	0.			131.		263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06
D	3.6	22.19	4000.	0.			131.		263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06
D	6.0	18.36	4000.	0.			131.		263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07
D	8.9	4.43	4000.	0.			131.		263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07
D	11.6	0.73	4000.	0.			131.		263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07
D	26.5	0.13	4000.	0.			131.		263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07
E	0.3	0.03	9000.	0.			131.		389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06
E	1.8	4.03	9000.	0.			131.		389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06
E	3.9	14.46	9000.	0.			131.		389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07
E	6.5	6.67	9000.	0.			131.		389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07
E	9.6	0.73	9000.	0.			131.		389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07
E	12.5	0.26	9000.	0.			131.		389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07
E	28.5	0.07	9000.	0.			131.		389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08
F	0.3	0.02	90000.	0.			131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06
F	1.8	1.72	90000.	0.			131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07
F	3.9	1.92	90000.	0.			131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07
F	6.5	0.53	90000.	0.			131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07
G	1.8	0.66	90000.	0.			131.		1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	1.25	90000.	0.			131.		1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	0.13	90000.	0.			131.		1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 95 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

WSW SECTOR BOUNDARY DISTANCE = 280.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	6.124E-06	4.813E-06	4.272E-06	4.045E-06	2.858E-06	2.427E-06	2.224E-06	1.994E-06
0.018	0.046	0.641	0.661	1.651	4.227	5.879	7.794	15.654	18.098
0.00063	0.00164	0.02263	0.02333	0.05832	0.14929	0.20760	0.27524	0.55282	0.63912
1.715E-06	1.640E-06	1.264E-06	1.262E-06	1.196E-06	1.159E-06	1.038E-06	8.082E-07	6.875E-07	6.226E-07
19.089	20.278	20.344	24.373	25.496	25.562	47.754	47.953	49.670	68.032
0.67411	0.71609	0.71842	0.86071	0.90036	0.90269	1.68642	1.69342	1.75407	2.40251
5.890E-07	4.207E-07	3.534E-07	3.243E-07	3.208E-07	2.388E-07	1.925E-07	1.841E-07	1.415E-07	8.032E-08
82.497	86.922	93.593	94.320	96.235	96.962	97.490	97.754	97.886	97.952
2.91333	3.06961	3.30519	3.33085	3.39849	3.42415	3.44281	3.45214	3.45681	3.45914
6.449E-08	3.010E-08	1.806E-08							
98.613	99.868	100.000							
3.48247	3.52678	3.53145							

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 0.552
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 1.685

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 2.911

K	I	XQSAVE(K, I)	XQINT(K, I)	XQSLOP(K, I)
4	1	-11.07050	-15.27913	-0.96350
4	2	-12.41800	-16.56801	-1.39754
4	3	-13.01641	-17.65467	-1.82513
4	4	-13.77855	-19.01550	-2.46590
4	5	-14.34482	NUMXQ(K)= 5	
		6.050E-06	0.035	1.000
		4.471E-06	0.106	3.000
		3.762E-06	0.177	5.000
		2.753E-06	0.353	10.000
		2.270E-06	0.530	15.000
		1.898E-06	0.706	20.000
		1.636E-06	0.883	25.000
		1.445E-06	1.059	30.000
		1.297E-06	1.236	35.000
		1.180E-06	1.413	40.000
		1.084E-06	1.589	45.000
		9.912E-07	1.766	50.000
		9.005E-07	1.942	55.000
		8.240E-07	2.119	60.000
		7.585E-07	2.295	65.000
		7.019E-07	2.472	70.000
		6.524E-07	2.649	75.000
		6.089E-07	2.825	80.000
		2.335E-06	0.5	14.16

ANNUAL AVERAGE = 1.54E-09

K= 4 FIVEXQ(K)= 2.335E-06 FIVEPR(K)=14.158

FUMIGATION X/Q AT THE BOUNDARY: 1.30E-04

EXPONENTIAL TERM AND FREQUENCIES

5.684E-01	5.200E-01	4.072E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
5.746	10.502	13.804	17.985	71.702	97.952	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 97 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1 96.3 meters

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE W SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN HT	EFF PLUME HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS						CA=1292.SQ.METERS					
A	1.7	0.15	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	8.668E-06
A	3.6	4.26	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	4.045E-06
A	6.0	2.25	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	2.427E-06
A	8.9	0.34	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	1.640E-06
B	1.7	0.24	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	6.124E-06
B	3.6	2.74	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	2.858E-06
B	6.0	0.59	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.715E-06
B	8.9	0.05	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.159E-06
C	1.7	0.05	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	4.272E-06
C	3.6	2.45	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06
C	6.0	0.68	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06
C	8.9	0.15	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07
C	11.6	0.05	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	6.230E-07
D	0.2	0.01	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05
D	1.7	5.63	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06
D	3.6	21.28	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06
D	6.0	16.19	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07
D	8.9	6.46	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07
D	11.6	1.57	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07
D	26.5	0.39	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07
E	0.3	0.02	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06
E	1.8	2.94	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06
E	3.9	13.85	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07
E	6.5	7.88	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07
E	9.6	2.84	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07
E	12.5	0.59	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07
E	28.5	0.98	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08
F	0.3	0.02	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06
F	1.8	1.52	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07
F	3.9	1.66	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07
F	6.5	0.64	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07
F	28.5	0.20	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.375E-08
G	1.8	0.64	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08

G	3.9	0.64	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	0.10	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 99 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

W SECTOR BOUNDARY DISTANCE = 280.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	8.668E-06	6.124E-06	4.813E-06	4.272E-06	4.045E-06	2.858E-06	2.427E-06	2.224E-06
0.013	0.034	0.180	0.425	0.442	0.491	4.748	7.487	9.738	15.364
0.00061	0.00160	0.00860	0.02026	0.02110	0.02343	0.22636	0.35698	0.46428	0.73252
1.994E-06	1.715E-06	1.640E-06	1.262E-06	1.196E-06	1.159E-06	1.038E-06	8.082E-07	6.875E-07	6.230E-07
17.810	18.397	18.740	21.675	22.360	22.409	43.690	43.837	45.353	45.402
0.84914	0.87713	0.89346	1.03341	1.06607	1.06840	2.08305	2.09005	2.16235	2.16469
6.226E-07	5.890E-07	4.207E-07	3.534E-07	3.243E-07	3.208E-07	2.388E-07	1.925E-07	1.841E-07	1.415E-07
61.596	75.441	81.899	89.775	91.341	93.004	95.842	96.478	97.065	97.456
2.93675	3.59686	3.90475	4.28029	4.35493	4.43423	4.56952	4.59984	4.62783	4.64649
8.032E-08	6.449E-08	4.375E-08	3.010E-08	1.806E-08					
98.434	99.070	99.266	99.902	100.000					
4.69314	4.72347	4.73280	4.76312	4.76779					

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 0.732

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 2.081

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 3.594
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(6)= 4.431

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
5	1	-11.07050	-14.90832	-0.87711
5	2	-12.41800	-16.68802	-1.50394
5	3	-13.01641	-17.62189	-1.88646
5	4	-13.77855	-18.63791	-2.38516
5	5	-14.34482	-25.59808	-6.25210
5	6	-14.95230	NUMXQ(K)= 6	
		6.082E-06	0.048	1.000
		4.587E-06	0.143	3.000
		3.946E-06	0.238	5.000
		2.792E-06	0.477	10.000
		2.253E-06	0.715	15.000
		1.853E-06	0.954	20.000
		1.580E-06	1.192	25.000
		1.382E-06	1.430	30.000
		1.231E-06	1.669	35.000
		1.111E-06	1.907	40.000
		1.008E-06	2.146	45.000
		9.065E-07	2.384	50.000
		8.225E-07	2.622	55.000
		7.516E-07	2.861	60.000
		6.910E-07	3.099	65.000
		6.385E-07	3.337	70.000
		5.928E-07	3.576	75.000
		4.980E-07	3.814	80.000
		4.178E-07	4.053	85.000
		3.535E-07	4.291	90.000
		2.724E-06	0.5	10.49

ANNUAL AVERAGE = 3.07E-09

K= 5 FIVEXQ(K)= 2.724E-06 FIVEPR(K)=10.487

FUMIGATION X/Q AT THE BOUNDARY: 1.30E-04

EXPONENTIAL TERM AND FREQUENCIES

5.684E-01	5.200E-01	4.072E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
6.996	10.372	13.992	18.021	69.549	98.630	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 101 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE WNW SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	3.6	2.40	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	4.045E-06			
A	6.0	2.40	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	2.427E-06			
A	8.9	0.16	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	1.640E-06			
A	11.6	0.05	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	1.264E-06			
A	26.5	0.05	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	5.516E-07			
B	3.6	1.58	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	2.858E-06			
B	6.0	1.36	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.715E-06			
B	8.9	0.11	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.159E-06			
B	11.6	0.05	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	8.931E-07			
C	3.6	3.54	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06			
C	6.0	1.42	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06			
C	8.9	0.22	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07			
C	11.6	0.11	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	6.230E-07			
D	0.2	0.01	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05			
D	1.7	4.69	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06			
D	3.6	16.58	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06			
D	6.0	16.79	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07			
D	8.9	7.63	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07			
D	11.6	1.42	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07			
D	26.5	0.11	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07			
E	0.3	0.02	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06			
E	1.8	3.27	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06			
E	3.9	10.91	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07			
E	6.5	14.01	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07			
E	9.6	3.44	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07			
E	12.5	1.15	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07			
E	28.5	0.22	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08			
F	0.3	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06			
F	1.8	1.25	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07			
F	3.9	2.84	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07			
F	6.5	1.31	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07			
F	9.6	0.11	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07			
F	28.5	0.05	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.375E-08			

G	1.8	0.27	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	0.33	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	0.11	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 103 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1 96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

WNW SECTOR BOUNDARY DISTANCE = 280.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	4.045E-06	2.858E-06	2.427E-06	2.224E-06	1.994E-06	1.715E-06	1.640E-06
0.011	0.034	0.048	2.448	4.029	6.428	11.118	14.662	16.025	16.189
0.00045	0.00145	0.00207	0.10470	0.17234	0.27497	0.47557	0.62719	0.68550	0.69250
1.264E-06	1.262E-06	1.196E-06	1.159E-06	1.038E-06	8.931E-07	8.082E-07	6.875E-07	6.230E-07	6.226E-07
16.243	19.515	20.933	21.042	37.619	37.673	37.891	39.146	39.255	56.050
0.69483	0.83478	0.89543	0.90009	1.60918	1.61151	1.62084	1.67449	1.67915	2.39757
5.890E-07	5.516E-07	4.207E-07	3.534E-07	3.243E-07	3.208E-07	2.388E-07	1.925E-07	1.841E-07	1.415E-07
66.955	67.010	74.644	88.658	90.076	92.911	96.347	97.655	98.800	98.909
2.86408	2.86641	3.19296	3.79242	3.85307	3.97436	4.12131	4.17729	4.22627	4.23094
1.301E-07	8.032E-08	6.449E-08	4.375E-08	3.010E-08	1.806E-08				
99.018	99.237	99.509	99.564	99.891	100.000				
4.23560	4.24493	4.25659	4.25893	4.27292	4.27759				

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (3)= 0.626
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (4)= 1.607

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 2.861
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(6)= 3.789

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
6	1	-11.07050	-15.46296	-0.98963
6	2	-12.41800	-16.17186	-1.22003
6	3	-13.12558	-17.72706	-1.84289
6	4	-13.77855	-18.81308	-2.34976
6	5	-14.34482	-22.06134	-4.05796
6	6	-14.85564	NUMXQ(K) = 6	
		5.219E-06	0.043	1.000
		3.754E-06	0.128	3.000
		3.094E-06	0.214	5.000
		2.344E-06	0.428	10.000
		1.964E-06	0.642	15.000
		1.621E-06	0.856	20.000
		1.391E-06	1.069	25.000
		1.223E-06	1.283	30.000
		1.094E-06	1.497	35.000
		9.792E-07	1.711	40.000
		8.749E-07	1.925	45.000
		7.896E-07	2.139	50.000
		7.187E-07	2.353	55.000
		6.586E-07	2.567	60.000
		6.072E-07	2.780	65.000
		5.441E-07	2.994	70.000
		4.806E-07	3.208	75.000
		4.273E-07	3.422	80.000
		3.822E-07	3.636	85.000
		2.196E-06	0.5	11.69

ANNUAL AVERAGE = 1.74E-09

K= 6 FIVEXQ(K)= 2.196E-06 FIVEPR(K)=11.689

FUMIGATION X/Q AT THE BOUNDARY: 1.30E-04

EXPONENTIAL TERM AND FREQUENCIES

5.684E-01	5.200E-01	4.072E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
5.071	10.361	13.469	19.045	66.278	99.291	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 105 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE NW SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN HT	EFF PLUME HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS			CA=1292.SQ.METERS								
A	3.6	0.17	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	4.045E-06
A	6.0	0.87	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	2.427E-06
A	8.9	0.56	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	1.640E-06
B	1.7	0.09	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	6.124E-06
B	3.6	0.43	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	2.858E-06
B	6.0	1.17	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.715E-06
B	8.9	0.35	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.159E-06
B	11.6	0.04	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	8.931E-07
C	3.6	0.61	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06
C	6.0	2.69	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06
C	8.9	0.48	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07
D	0.2	0.00	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05
D	1.7	1.95	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06
D	3.6	14.72	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06
D	6.0	20.76	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07
D	8.9	6.99	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07
D	11.6	0.61	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07
D	26.5	0.30	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07
E	0.3	0.02	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06
E	1.8	2.65	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06
E	3.9	14.98	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07
E	6.5	15.16	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07
E	9.6	4.26	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07
E	12.5	0.69	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07
E	28.5	0.52	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08
F	0.3	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06
F	1.8	1.22	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07
F	3.9	3.52	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07
F	6.5	2.08	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07
F	9.6	0.30	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07
G	1.8	0.17	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	1.22	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	0.35	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08

G	9.6	0.04	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08
---	-----	------	--------	----	------	--------	------	-----	-----------	-----------	-----------

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 107 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1 96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

NW SECTOR BOUNDARY DISTANCE = 280.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	6.124E-06	4.813E-06	4.045E-06	2.858E-06	2.427E-06	2.224E-06	1.994E-06	1.715E-06
0.004	0.023	0.110	0.124	0.298	0.732	1.601	3.555	4.163	5.335
0.00024	0.00125	0.00591	0.00667	0.01600	0.03932	0.08597	0.19094	0.22359	0.28657
1.640E-06	1.262E-06	1.196E-06	1.159E-06	1.038E-06	8.931E-07	8.082E-07	6.875E-07	6.226E-07	5.890E-07
5.900	8.548	11.241	11.588	26.309	26.352	26.830	28.046	48.803	63.784
0.31689	0.45918	0.60380	0.62246	1.41318	1.41551	1.44117	1.50648	2.62143	3.42615
4.207E-07	3.534E-07	3.243E-07	3.208E-07	2.388E-07	1.925E-07	1.841E-07	1.415E-07	1.301E-07	8.032E-08
70.775	85.931	86.538	90.056	94.311	96.396	97.091	97.395	97.698	98.220
3.80169	4.61574	4.64839	4.83733	5.06591	5.17788	5.21520	5.23152	5.24785	5.27584
6.449E-08	3.010E-08	1.806E-08	1.220E-08						
98.393	99.609	99.957	100.000						
5.28517	5.35048	5.36914	5.37148						

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.191
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 1.412

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 3.423
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 4.612

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
7	1	-11.07050	-16.36184	-1.15635
7	2	-13.01641	-16.17063	-1.09026
7	3	-13.77855	-17.11755	-1.52184
7	4	-14.34482	-21.07552	-3.69421
7	5	-14.85564	NUMXQ(K)= 5	
		3.440E-06	0.054	1.000
		2.364E-06	0.161	3.000
		1.975E-06	0.269	5.000
		1.532E-06	0.537	10.000
		1.308E-06	0.806	15.000
		1.164E-06	1.074	20.000
		1.060E-06	1.343	25.000
		9.586E-07	1.611	30.000
		8.718E-07	1.880	35.000
		8.016E-07	2.149	40.000
		7.432E-07	2.417	45.000
		6.938E-07	2.686	50.000
		6.513E-07	2.954	55.000
		6.141E-07	3.223	60.000
		5.707E-07	3.491	65.000
		5.038E-07	3.760	70.000
		4.478E-07	4.029	75.000
		4.005E-07	4.297	80.000
		3.603E-07	4.566	85.000
		1.574E-06	0.5	9.31

ANNUAL AVERAGE = 4.90E-10

K= 7 FIVEXQ(K)= 1.574E-06 FIVEPR(K)= 9.308

FUMIGATION X/Q AT THE BOUNDARY: 1.30E-04

EXPONENTIAL TERM AND FREQUENCIES

5.684E-01	5.200E-01	4.072E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
1.607	5.385	7.469	14.605	59.944	98.220	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 109 of 1411

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE NNW SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS			METERS		METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	3.6	0.09	500.		0.		131.		100.2	123.6	0.0	0.000E+00	0.000E+00	4.045E-06
A	6.0	0.09	500.		0.		131.		100.2	123.6	0.0	0.000E+00	0.000E+00	2.427E-06
B	3.6	0.14	900.		0.		131.		128.1	98.0	0.0	0.000E+00	0.000E+00	2.858E-06
B	6.0	0.37	900.		0.		131.		128.1	98.0	0.0	0.000E+00	0.000E+00	1.715E-06
B	8.9	0.37	900.		0.		131.		128.1	98.0	0.0	0.000E+00	0.000E+00	1.159E-06
B	11.6	0.05	900.		0.		131.		128.1	98.0	0.0	0.000E+00	0.000E+00	8.931E-07
C	3.6	0.55	2000.		0.		131.		200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06
C	6.0	1.01	2000.		0.		131.		200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06
C	8.9	0.46	2000.		0.		131.		200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07
C	11.6	0.05	2000.		0.		131.		200.0	114.9	0.0	0.000E+00	0.000E+00	6.230E-07
D	0.2	0.00	4000.		0.		131.		263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05
D	1.7	1.61	4000.		0.		131.		263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06
D	3.6	11.17	4000.		0.		131.		263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06
D	6.0	21.42	4000.		0.		131.		263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07
D	8.9	5.42	4000.		0.		131.		263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07
D	11.6	0.51	4000.		0.		131.		263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07
D	26.5	0.32	4000.		0.		131.		263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07
E	0.3	0.02	9000.		0.		131.		389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06
E	1.8	2.71	9000.		0.		131.		389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06
E	3.9	14.29	9000.		0.		131.		389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07
E	6.5	20.36	9000.		0.		131.		389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07
E	9.6	7.58	9000.		0.		131.		389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07
E	12.5	0.51	9000.		0.		131.		389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07
E	28.5	0.09	9000.		0.		131.		389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08
F	0.3	0.02	90000.		0.		131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06
F	1.8	1.47	90000.		0.		131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07
F	3.9	4.14	90000.		0.		131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07
F	6.5	3.63	90000.		0.		131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07
F	9.6	0.37	90000.		0.		131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07
G	1.8	0.41	90000.		0.		131.		1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	0.46	90000.		0.		131.		1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	0.28	90000.		0.		131.		1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	0.05	90000.		0.		131.		1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 110 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

NNW SECTOR BOUNDARY DISTANCE = 280.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	4.045E-06	2.858E-06	2.427E-06	2.224E-06	1.994E-06	1.715E-06	1.262E-06
0.004	0.023	0.040	0.132	0.270	0.362	1.970	2.522	2.889	5.601
0.00018	0.00116	0.00203	0.00669	0.01369	0.01835	0.09999	0.12798	0.14664	0.28426
1.196E-06	1.159E-06	1.038E-06	8.931E-07	8.082E-07	6.875E-07	6.230E-07	6.226E-07	5.890E-07	4.207E-07
6.612	6.980	18.148	18.194	18.653	20.124	20.170	41.587	55.880	61.303
0.33558	0.35424	0.92104	0.92337	0.94670	1.02134	1.02367	2.11063	2.83604	3.11128
3.534E-07	3.243E-07	3.208E-07	2.388E-07	1.925E-07	1.841E-07	1.415E-07	1.301E-07	8.032E-08	6.449E-08
81.662	82.168	86.304	93.887	97.518	98.024	98.345	98.713	98.805	99.219
4.14459	4.17025	4.38017	4.76504	4.94931	4.97497	4.99130	5.00996	5.01462	5.03561
3.010E-08	1.806E-08	1.220E-08							
99.678	99.954	100.000							
5.05894	5.07293	5.07527							

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.100
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 0.920

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 2.833
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 4.141

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
8	1	-11.07050	-16.92746	-1.26549
8	2	-13.01641	-16.22955	-1.03967
8	3	-13.77855	-16.73458	-1.25389
8	4	-14.34482	-20.02675	-2.98127
8	5	-14.85564	NUMXQ(K)= 5	
		2.850E-06	0.051	1.000
		1.948E-06	0.152	3.000
		1.648E-06	0.254	5.000
		1.296E-06	0.508	10.000
		1.116E-06	0.761	15.000
		9.915E-07	1.015	20.000
		8.911E-07	1.269	25.000
		8.147E-07	1.523	30.000
		7.539E-07	1.776	35.000
		7.039E-07	2.030	40.000
		6.618E-07	2.284	45.000
		6.256E-07	2.538	50.000
		5.941E-07	2.791	55.000
		5.366E-07	3.045	60.000
		4.825E-07	3.299	65.000
		4.367E-07	3.553	70.000
		3.975E-07	3.806	75.000
		3.637E-07	4.060	80.000
		1.303E-06	0.5	9.85

ANNUAL AVERAGE = 7.76E-11

K= 8 FIVEXQ(K)= 1.303E-06 FIVEPR(K)= 9.852

FUMIGATION X/Q AT THE BOUNDARY: 1.30E-04

EXPONENTIAL TERM AND FREQUENCIES

5.684E-01	5.200E-01	4.072E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
0.184	2.252	3.171	12.793	53.241	98.805	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 112 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1 96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE N SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	**	CHI/Q	VALUES (SEC/CUBIC METER)	
CLASS	METER/SEC	PERCENT	METERS	METERS			METERS		METERS	METERS	METERS		MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS			
A	6.0	0.28	500.	0.			131.		100.2	123.6	0.0		0.000E+00	0.000E+00	2.427E-06
A	8.9	0.16	500.	0.			131.		100.2	123.6	0.0		0.000E+00	0.000E+00	1.640E-06
B	3.6	0.07	900.	0.			131.		128.1	98.0	0.0		0.000E+00	0.000E+00	2.858E-06
B	6.0	0.58	900.	0.			131.		128.1	98.0	0.0		0.000E+00	0.000E+00	1.715E-06
B	8.9	0.72	900.	0.			131.		128.1	98.0	0.0		0.000E+00	0.000E+00	1.159E-06
B	11.6	0.12	900.	0.			131.		128.1	98.0	0.0		0.000E+00	0.000E+00	8.931E-07
B	26.5	0.02	900.	0.			131.		128.1	98.0	0.0		0.000E+00	0.000E+00	3.897E-07
C	3.6	0.44	2000.	0.			131.		200.0	114.9	0.0		0.000E+00	0.000E+00	1.994E-06
C	6.0	1.68	2000.	0.			131.		200.0	114.9	0.0		0.000E+00	0.000E+00	1.196E-06
C	8.9	1.56	2000.	0.			131.		200.0	114.9	0.0		0.000E+00	0.000E+00	8.082E-07
C	11.6	0.21	2000.	0.			131.		200.0	114.9	0.0		0.000E+00	0.000E+00	6.230E-07
C	26.5	0.02	2000.	0.			131.		200.0	114.9	0.0		0.000E+00	0.000E+00	2.719E-07
D	0.2	0.00	4000.	0.			131.		263.4	78.0	0.0		0.000E+00	0.000E+00	1.556E-05
D	1.7	0.96	4000.	0.			131.		263.4	78.0	0.0		0.000E+00	0.000E+00	2.224E-06
D	3.6	7.00	4000.	0.			131.		263.4	78.0	0.0		0.000E+00	0.000E+00	1.038E-06
D	6.0	16.51	4000.	0.			131.		263.4	78.0	0.0		0.000E+00	0.000E+00	6.226E-07
D	8.9	11.24	4000.	0.			131.		263.4	78.0	0.0		0.000E+00	0.000E+00	4.207E-07
D	11.6	2.31	4000.	0.			131.		263.4	78.0	0.0		0.000E+00	0.000E+00	3.243E-07
D	26.5	0.68	4000.	0.			131.		263.4	78.0	0.0		0.000E+00	0.000E+00	1.415E-07
E	0.3	0.01	9000.	0.			131.		389.6	74.2	0.0		0.000E+00	0.000E+00	8.835E-06
E	1.8	1.63	9000.	0.			131.		389.6	74.2	0.0		0.000E+00	0.000E+00	1.262E-06
E	3.9	10.14	9000.	0.			131.		389.6	74.2	0.0		0.000E+00	0.000E+00	5.890E-07
E	6.5	20.78	9000.	0.			131.		389.6	74.2	0.0		0.000E+00	0.000E+00	3.534E-07
E	9.6	12.03	9000.	0.			131.		389.6	74.2	0.0		0.000E+00	0.000E+00	2.388E-07
E	12.5	1.49	9000.	0.			131.		389.6	74.2	0.0		0.000E+00	0.000E+00	1.841E-07
E	28.5	0.14	9000.	0.			131.		389.6	74.2	0.0		0.000E+00	0.000E+00	8.032E-08
F	0.3	0.01	90000.	0.			131.		1000.0	92.1	0.0		0.000E+00	0.000E+00	4.813E-06
F	1.8	0.54	90000.	0.			131.		1000.0	92.1	0.0		0.000E+00	0.000E+00	6.875E-07
F	3.9	3.13	90000.	0.			131.		1000.0	92.1	0.0		0.000E+00	0.000E+00	3.208E-07
F	6.5	3.03	90000.	0.			131.		1000.0	92.1	0.0		0.000E+00	0.000E+00	1.925E-07
F	9.6	1.03	90000.	0.			131.		1000.0	92.1	0.0		0.000E+00	0.000E+00	1.301E-07
G	1.8	0.40	90000.	0.			131.		1000.0	46.0	0.0		0.000E+00	0.000E+00	6.449E-08
G	3.9	0.79	90000.	0.			131.		1000.0	46.0	0.0		0.000E+00	0.000E+00	3.010E-08

G	6.5	0.23	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	0.05	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 114 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

N SECTOR BOUNDARY DISTANCE = 280.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.858E-06	2.427E-06	2.224E-06	1.994E-06	1.715E-06	1.640E-06	1.262E-06
0.002	0.014	0.020	0.090	0.370	1.326	1.769	2.352	2.515	4.148
0.00022	0.00138	0.00200	0.00900	0.03699	0.13262	0.17694	0.23525	0.25158	0.41485
1.196E-06	1.159E-06	1.038E-06	8.931E-07	8.082E-07	6.875E-07	6.230E-07	6.226E-07	5.890E-07	4.207E-07
5.827	6.550	13.547	13.663	15.226	15.762	15.972	32.484	42.629	53.870
0.58280	0.65510	1.35486	1.36652	1.52280	1.57645	1.59744	3.24887	4.26352	5.38780
3.897E-07	3.534E-07	3.243E-07	3.208E-07	2.719E-07	2.388E-07	1.925E-07	1.841E-07	1.415E-07	1.301E-07
53.893	74.673	76.981	80.107	80.130	92.164	95.196	96.688	97.365	98.391
5.39013	7.46841	7.69933	8.01189	8.01422	9.21780	9.52103	9.67031	9.73795	9.84058
8.032E-08	6.449E-08	3.010E-08	1.806E-08	1.220E-08					
98.531	98.927	99.720	99.953	100.000					
9.85458	9.89423	9.97354	9.99686	10.00153					

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(2) =	0.132
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(4) =	4.260

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 7.465

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
9	1	-11.07050	-16.69575	-1.22412
9	2	-13.01641	-15.89735	-0.95849
9	3	-13.77855	-16.33691	-1.15733
9	4	-14.34482	-17.49364	-1.82936
9	5	-14.85564	NUMXQ(K)= 5	
		2.467E-06	0.100	1.000
		1.737E-06	0.300	3.000
		1.473E-06	0.500	5.000
		1.160E-06	1.000	10.000
		9.906E-07	1.500	15.000
		8.658E-07	2.000	20.000
		7.767E-07	2.500	25.000
		7.087E-07	3.000	30.000
		6.544E-07	3.501	35.000
		6.096E-07	4.001	40.000
		5.621E-07	4.501	45.000
		5.124E-07	5.001	50.000
		4.705E-07	5.501	55.000
		4.345E-07	6.001	60.000
		4.034E-07	6.501	65.000
		3.761E-07	7.001	70.000
		1.473E-06	0.5	5.00

ANNUAL AVERAGE = 2.27E-10

K= 9 FIVEXQ(K)= 1.473E-06 FIVEPR(K)= 4.999

FUMIGATION X/Q AT THE BOUNDARY: 1.30E-04

EXPONENTIAL TERM AND FREQUENCIES

5.684E-01	5.200E-01	4.072E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
0.443	4.361	5.877	13.603	52.296	98.531	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 116 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE NNE SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	3.6	0.08	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	4.045E-06			
A	6.0	0.28	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	2.427E-06			
A	8.9	0.12	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	1.640E-06			
B	3.6	0.16	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	2.858E-06			
B	6.0	0.56	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.715E-06			
B	8.9	0.36	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.159E-06			
B	11.6	0.08	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	8.931E-07			
C	3.6	0.20	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06			
C	6.0	1.47	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06			
C	8.9	0.95	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07			
D	0.2	0.00	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05			
D	1.7	0.91	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06			
D	3.6	7.60	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06			
D	6.0	16.91	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07			
D	8.9	6.60	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07			
D	11.6	0.64	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07			
D	26.5	0.36	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07			
E	0.3	0.02	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06			
E	1.8	2.23	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06			
E	3.9	12.73	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07			
E	6.5	22.95	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07			
E	9.6	9.07	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07			
E	12.5	0.76	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07			
E	28.5	0.16	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08			
F	0.3	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06			
F	1.8	1.27	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07			
F	3.9	5.61	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07			
F	6.5	4.42	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07			
F	9.6	0.91	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07			
F	12.5	0.12	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.003E-07			
G	1.8	0.36	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08			
G	3.9	1.23	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08			
G	6.5	0.84	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08			

G	9.6	0.04	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08
---	-----	------	--------	----	------	--------	------	-----	-----------	-----------	-----------

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 118 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

NNE SECTOR BOUNDARY DISTANCE = 280.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	4.045E-06	2.858E-06	2.427E-06	2.224E-06	1.994E-06	1.715E-06	1.640E-06
0.002	0.018	0.033	0.112	0.271	0.550	1.465	1.664	2.221	2.340
0.00012	0.00105	0.00191	0.00658	0.01591	0.03224	0.08588	0.09755	0.13020	0.13720
1.262E-06	1.196E-06	1.159E-06	1.038E-06	8.931E-07	8.082E-07	6.875E-07	6.226E-07	5.890E-07	4.207E-07
4.568	6.039	6.397	13.995	14.075	15.030	16.303	33.209	45.939	52.542
0.26782	0.35412	0.37512	0.82063	0.82529	0.88127	0.95592	1.94724	2.69365	3.08085
3.534E-07	3.243E-07	3.208E-07	2.388E-07	1.925E-07	1.841E-07	1.415E-07	1.301E-07	1.003E-07	8.032E-08
75.495	76.132	81.741	90.811	95.226	95.982	96.340	97.255	97.375	97.534
4.42671	4.46403	4.79292	5.32473	5.58364	5.62796	5.64895	5.70260	5.70960	5.71893
6.449E-08	3.010E-08	1.806E-08	1.220E-08						
97.892	99.125	99.960	100.000						
5.73992	5.81223	5.86121	5.86355						

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.001

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 0.086

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (4)= 0.820
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (5)= 2.691
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (6)= 4.423

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
10	1	-11.07050	-16.86574	-1.22926
10	2	-11.63677	-16.88443	-1.23365
10	3	-13.01641	-16.26591	-1.03638
10	4	-13.77855	-16.65940	-1.20033
10	5	-14.34482	-18.72800	-2.27310
10	6	-14.85564	NUMXQ(K) = 6	
		2.548E-06	0.059	1.000
		1.776E-06	0.176	3.000
		1.500E-06	0.293	5.000
		1.176E-06	0.586	10.000
		1.006E-06	0.880	15.000
		8.839E-07	1.173	20.000
		7.964E-07	1.466	25.000
		7.297E-07	1.759	30.000
		6.764E-07	2.052	35.000
		6.325E-07	2.345	40.000
		5.954E-07	2.639	45.000
		5.416E-07	2.932	50.000
		4.920E-07	3.225	55.000
		4.501E-07	3.518	60.000
		4.142E-07	3.811	65.000
		3.831E-07	4.104	70.000
		3.559E-07	4.398	75.000
		1.246E-06	0.5	8.53

ANNUAL AVERAGE = 1.73E-10

K= 10 FIVEXQ(K)= 1.246E-06 FIVEPR(K)= 8.527

FUMIGATION X/Q AT THE BOUNDARY: 1.30E-04

EXPONENTIAL TERM AND FREQUENCIES

5.684E-01	5.200E-01	4.072E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
0.477	3.103	4.256	16.603	49.623	97.534	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 120 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE NE SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	3.6	0.09	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	4.045E-06			
A	6.0	0.23	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	2.427E-06			
A	8.9	0.09	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	1.640E-06			
B	3.6	0.14	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	2.858E-06			
B	6.0	0.61	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.715E-06			
B	8.9	0.28	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.159E-06			
B	11.6	0.05	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	8.931E-07			
C	3.6	0.33	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06			
C	6.0	1.41	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06			
C	8.9	0.99	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07			
C	11.6	0.19	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	6.230E-07			
C	26.5	0.05	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	2.719E-07			
D	0.2	0.00	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05			
D	1.7	1.50	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06			
D	3.6	7.28	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06			
D	6.0	13.48	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07			
D	8.9	5.92	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07			
D	11.6	0.75	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07			
D	26.5	0.14	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07			
E	0.3	0.02	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06			
E	1.8	2.77	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06			
E	3.9	13.19	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07			
E	6.5	16.62	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07			
E	9.6	10.14	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07			
E	12.5	0.85	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07			
E	28.5	0.09	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08			
F	0.3	0.02	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06			
F	1.8	1.50	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07			
F	3.9	7.32	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07			
F	6.5	7.37	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07			
F	9.6	1.83	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07			
G	1.8	0.28	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08			
G	3.9	1.69	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08			

G	6.5	2.39	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	0.38	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 122 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

NE SECTOR BOUNDARY DISTANCE = 280.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	4.045E-06	2.858E-06	2.427E-06	2.224E-06	1.994E-06	1.715E-06	1.640E-06
0.003	0.023	0.040	0.134	0.275	0.510	2.012	2.341	2.951	3.045
0.00017	0.00115	0.00201	0.00667	0.01367	0.02534	0.09998	0.11630	0.14663	0.15129
1.262E-06	1.196E-06	1.159E-06	1.038E-06	8.931E-07	8.082E-07	6.875E-07	6.230E-07	6.226E-07	5.890E-07
5.815	7.224	7.506	14.783	14.830	15.816	17.319	17.506	30.981	44.175
0.28891	0.35889	0.37288	0.73442	0.73676	0.78574	0.86038	0.86971	1.53914	2.19458
4.207E-07	3.534E-07	3.243E-07	3.208E-07	2.719E-07	2.388E-07	1.925E-07	1.841E-07	1.415E-07	1.301E-07
50.091	66.711	67.463	74.787	74.834	84.976	92.347	93.192	93.333	95.164
2.48848	3.31419	3.35152	3.71539	3.71772	4.22155	4.58775	4.62974	4.63674	4.72770
8.032E-08	6.449E-08	3.010E-08	1.806E-08	1.220E-08					
95.258	95.540	97.230	99.624	100.000					
4.73237	4.74636	4.83034	4.94929	4.96795					

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.100
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 0.734

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 2.192
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 3.712

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
11	1	-11.07050	-16.88108	-1.25046
11	2	-13.01641	-16.63911	-1.17217
11	3	-13.77855	-17.03136	-1.33290
11	4	-14.34482	-19.65802	-2.63609
11	5	-14.95230	NUMXQ(K)= 5	
		2.862E-06	0.050	1.000
		1.931E-06	0.149	3.000
		1.599E-06	0.248	5.000
		1.220E-06	0.497	10.000
		1.030E-06	0.745	15.000
		8.947E-07	0.994	20.000
		7.990E-07	1.242	25.000
		7.266E-07	1.490	30.000
		6.693E-07	1.739	35.000
		6.223E-07	1.987	40.000
		5.771E-07	2.236	45.000
		5.130E-07	2.484	50.000
		4.604E-07	2.732	55.000
		4.164E-07	2.981	60.000
		3.792E-07	3.229	65.000
		3.474E-07	3.478	70.000
		1.217E-06	0.5	10.06

ANNUAL AVERAGE = 1.36E-10

K= 11 FIVEXQ(K)= 1.217E-06 FIVEPR(K)=10.065

FUMIGATION X/Q AT THE BOUNDARY: 1.30E-04

EXPONENTIAL TERM AND FREQUENCIES

5.684E-01	5.200E-01	4.072E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
0.423	3.381	4.460	22.507	51.573	95.258	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 124 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE ENE SECTOR.

STABILITY CLASS	WINDSPEED METER/SEC	FREQUENCY PERCENT	DISTANCE METERS	TERRAIN METERS	HT METERS	EFF METERS	PLUME METERS	HT METERS	SIGMA-Y METERS	SIGMA-Z METERS	MEANDER-SY METERS	** CHI/Q VALUES (SEC/CUBIC METER)	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS			
A	6.0	0.33	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	2.427E-06				
A	8.9	0.14	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	1.640E-06				
A	11.6	0.09	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	1.264E-06				
A	26.5	0.09	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	5.516E-07				
B	3.6	0.05	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	2.858E-06				
B	6.0	0.38	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.715E-06				
B	8.9	0.89	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.159E-06				
B	11.6	0.09	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	8.931E-07				
B	26.5	0.05	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	3.897E-07				
C	3.6	0.14	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06				
C	6.0	1.22	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06				
C	8.9	1.46	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07				
C	11.6	0.19	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	6.230E-07				
C	26.5	0.05	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	2.719E-07				
D	0.2	0.00	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05				
D	1.7	0.71	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06				
D	3.6	6.02	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06				
D	6.0	9.93	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07				
D	8.9	8.94	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07				
D	11.6	1.03	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07				
D	26.5	0.28	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07				
E	0.3	0.02	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06				
E	1.8	2.54	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06				
E	3.9	8.80	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07				
E	6.5	13.97	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07				
E	9.6	12.75	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07				
E	12.5	1.41	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07				
E	28.5	0.05	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08				
F	0.3	0.02	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06				
F	1.8	1.55	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07				
F	3.9	5.50	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07				
F	6.5	8.33	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07				
F	9.6	5.13	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07				
F	12.5	0.85	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.003E-07				

G	1.8	0.85	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	1.60	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	3.29	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	1.22	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08
G	12.5	0.05	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	9.405E-09

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 126 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

ENE SECTOR BOUNDARY DISTANCE = 280.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.858E-06	2.427E-06	2.224E-06	1.994E-06	1.715E-06	1.640E-06	1.264E-06
0.002	0.020	0.038	0.085	0.414	1.120	1.261	1.637	1.778	1.872
0.00008	0.00098	0.00186	0.00420	0.02052	0.05551	0.06251	0.08117	0.08817	0.09283
1.262E-06	1.196E-06	1.159E-06	1.038E-06	8.931E-07	8.082E-07	6.875E-07	6.230E-07	6.226E-07	5.890E-07
4.412	5.635	6.529	12.551	12.645	14.103	15.655	15.843	25.769	34.566
0.21879	0.27943	0.32375	0.62232	0.62698	0.69929	0.77626	0.78559	1.27776	1.71394
5.516E-07	4.207E-07	3.897E-07	3.534E-07	3.243E-07	3.208E-07	2.719E-07	2.388E-07	1.925E-07	1.841E-07
34.660	43.598	43.645	57.616	58.651	64.155	64.202	76.950	85.276	86.687
1.71860	2.16178	2.16411	2.85687	2.90819	3.18110	3.18343	3.81554	4.22840	4.29837
1.415E-07	1.301E-07	1.003E-07	8.032E-08	6.449E-08	3.010E-08	1.806E-08	1.220E-08	9.405E-09	
86.970	92.097	92.944	92.991	93.838	95.437	98.730	99.953	100.000	
4.31237	4.56662	4.60860	4.61093	4.65292	4.73222	4.89550	4.95615	4.95848	

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.001
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 0.055

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 0.622
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 1.712
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(6)= 3.178

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
12	1	-11.07050	-16.19649	-1.06775
12	2	-11.63677	-17.47494	-1.36713
12	3	-13.01641	-16.28004	-1.00073
12	4	-13.77855	-17.47979	-1.48070
12	5	-14.34482	-19.25415	-2.31876
12	6	-14.95230	NUMXQ(K)= 6	
		2.323E-06	0.050	1.000
		1.662E-06	0.149	3.000
		1.416E-06	0.248	5.000
		1.124E-06	0.496	10.000
		9.441E-07	0.744	15.000
		8.070E-07	0.992	20.000
		7.118E-07	1.240	25.000
		6.405E-07	1.488	30.000
		5.822E-07	1.735	35.000
		5.130E-07	1.983	40.000
		4.579E-07	2.231	45.000
		4.128E-07	2.479	50.000
		3.754E-07	2.727	55.000
		3.437E-07	2.975	60.000
		1.120E-06	0.5	10.08

ANNUAL AVERAGE = 1.43E-10

K= 12 FIVEXQ(K)= 1.120E-06 FIVEPR(K)=10.084

FUMIGATION X/Q AT THE BOUNDARY: 1.30E-04

EXPONENTIAL TERM AND FREQUENCIES

5.684E-01	5.200E-01	4.072E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
0.659	3.716	5.175	26.549	53.458	92.991	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 128 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE E SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	3.6	0.03	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	4.045E-06			
A	6.0	0.24	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	2.427E-06			
A	8.9	0.63	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	1.640E-06			
A	11.6	0.42	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	1.264E-06			
A	26.5	0.06	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	5.516E-07			
B	3.6	0.12	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	2.858E-06			
B	6.0	0.63	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.715E-06			
B	8.9	0.81	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.159E-06			
B	11.6	0.36	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	8.931E-07			
B	26.5	0.18	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	3.897E-07			
C	3.6	0.15	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06			
C	6.0	1.25	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06			
C	8.9	1.67	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07			
C	11.6	0.86	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	6.230E-07			
C	26.5	0.39	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	2.719E-07			
D	0.2	0.00	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05			
D	1.7	0.78	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06			
D	3.6	4.21	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06			
D	6.0	8.98	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07			
D	8.9	11.78	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07			
D	11.6	6.71	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07			
D	26.5	2.68	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07			
E	0.3	0.01	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06			
E	1.8	1.61	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06			
E	3.9	5.16	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07			
E	6.5	11.78	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07			
E	9.6	15.99	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07			
E	12.5	2.33	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07			
E	28.5	0.27	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08			
F	0.3	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06			
F	1.8	0.89	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07			
F	3.9	2.54	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07			
F	6.5	5.91	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07			
F	9.6	5.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07			

Calculation No. PM-1055 Revision 0**Attachment J****Page 129 of 1411**

F	12.5	0.72	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.003E-07
G	1.8	0.39	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	1.19	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	2.06	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	1.16	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08
G	12.5	0.03	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	9.405E-09
G	28.5	0.03	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	4.104E-09

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 130 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

E SECTOR BOUNDARY DISTANCE = 280.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	4.045E-06	2.858E-06	2.427E-06	2.224E-06	1.994E-06	1.715E-06	1.640E-06
0.002	0.013	0.024	0.053	0.173	0.411	1.187	1.336	1.962	2.589
0.00014	0.00103	0.00184	0.00417	0.01350	0.03216	0.09281	0.10447	0.15346	0.20244
1.264E-06	1.262E-06	1.196E-06	1.159E-06	1.038E-06	8.931E-07	8.082E-07	6.875E-07	6.230E-07	6.226E-07
3.006	4.617	5.869	6.675	10.880	11.238	12.908	13.803	14.668	23.646
0.23509	0.36105	0.45902	0.52199	0.85088	0.87887	1.00949	1.07947	1.14711	1.84920
5.890E-07	5.516E-07	4.207E-07	3.897E-07	3.534E-07	3.243E-07	3.208E-07	2.719E-07	2.388E-07	1.925E-07
28.806	28.865	40.646	40.825	52.607	59.317	61.853	62.240	78.227	84.133
2.25273	2.25739	3.17874	3.19274	4.11408	4.63890	4.83717	4.86749	6.11772	6.57956
1.841E-07	1.415E-07	1.301E-07	1.003E-07	8.032E-08	6.449E-08	3.010E-08	1.806E-08	1.220E-08	9.405E-09
86.459	89.143	94.154	94.870	95.138	95.526	96.719	98.777	99.940	99.970
6.76150	6.97143	7.36329	7.41927	7.44026	7.47059	7.56389	7.72483	7.81580	7.81813
4.104E-09									
100.000									
7.82046									

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS

SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (2)= 0.093
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (3)= 0.850
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (4)= 2.250
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (5)= 4.834

K	I	XQSAVE(K, I)	XQINT(K, I)	XQSLOP(K, I)
13	1	-11.07050	-16.85765	-1.23409
13	2	-13.01641	-16.28464	-1.05000
13	3	-13.77855	-17.31495	-1.48167
13	4	-14.34482	-17.89132	-1.76920
13	5	-14.95230	NUMXQ(K)= 5	
		2.366E-06	0.078	1.000
		1.649E-06	0.235	3.000
		1.383E-06	0.391	5.000
		1.072E-06	0.782	10.000
		8.680E-07	1.173	15.000
		7.349E-07	1.564	20.000
		6.428E-07	1.955	25.000
		5.714E-07	2.346	30.000
		5.083E-07	2.737	35.000
		4.583E-07	3.128	40.000
		4.173E-07	3.519	45.000
		3.832E-07	3.910	50.000
		3.542E-07	4.301	55.000
		3.292E-07	4.692	60.000
		1.266E-06	0.5	6.39

ANNUAL AVERAGE = 4.18E-10

K= 13 FIVEXQ(K)= 1.266E-06 FIVEPR(K)= 6.393

FUMIGATION X/Q AT THE BOUNDARY: 1.30E-04

EXPONENTIAL TERM AND FREQUENCIES

5.684E-01	5.200E-01	4.072E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
1.372	5.697	7.785	22.857	57.994	95.138	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 132 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE ESE SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	6.0	0.24	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	2.427E-06			
A	8.9	0.24	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	1.640E-06			
A	11.6	0.05	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	1.264E-06			
A	26.5	0.13	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	5.516E-07			
B	3.6	0.08	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	2.858E-06			
B	6.0	0.24	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.715E-06			
B	8.9	0.53	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.159E-06			
B	11.6	0.37	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	8.931E-07			
B	26.5	0.19	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	3.897E-07			
C	3.6	0.13	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06			
C	6.0	0.69	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06			
C	8.9	1.57	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07			
C	11.6	0.80	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	6.230E-07			
C	26.5	0.72	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	2.719E-07			
D	0.2	0.00	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05			
D	1.7	1.01	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06			
D	3.6	2.59	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06			
D	6.0	9.48	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07			
D	8.9	17.99	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07			
D	11.6	11.96	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07			
D	26.5	4.03	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07			
E	0.3	0.01	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06			
E	1.8	0.96	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06			
E	3.9	3.68	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07			
E	6.5	9.45	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07			
E	9.6	15.56	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07			
E	12.5	2.96	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07			
E	28.5	0.32	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08			
F	0.3	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06			
F	1.8	0.75	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07			
F	3.9	1.76	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07			
F	6.5	3.74	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07			
F	9.6	3.68	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07			
F	12.5	0.48	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.003E-07			

G	1.8	0.37	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	0.93	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	1.17	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	1.04	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08
G	12.5	0.05	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	9.405E-09

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 134 of 1411

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1 96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

ESE SECTOR BOUNDARY DISTANCE = 280.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.858E-06	2.427E-06	2.224E-06	1.994E-06	1.715E-06	1.640E-06	1.264E-06
0.002	0.009	0.018	0.098	0.338	1.352	1.486	1.726	1.966	2.020
0.00020	0.00080	0.00155	0.00855	0.02954	0.11818	0.12984	0.15083	0.17183	0.17649
1.262E-06	1.196E-06	1.159E-06	1.038E-06	8.931E-07	8.082E-07	6.875E-07	6.230E-07	6.226E-07	5.890E-07
2.980	3.674	4.208	6.797	7.171	8.746	9.493	10.294	19.769	23.452
0.26046	0.32111	0.36776	0.59401	0.62667	0.76429	0.82960	0.89957	1.72762	2.04951
5.516E-07	4.207E-07	3.897E-07	3.534E-07	3.243E-07	3.208E-07	2.719E-07	2.388E-07	1.925E-07	1.841E-07
23.585	41.575	41.762	51.210	63.167	64.929	65.649	81.210	84.947	87.909
2.06117	3.63329	3.64962	4.47533	5.52030	5.67425	5.73723	7.09709	7.42365	7.68255
1.415E-07	1.301E-07	1.003E-07	8.032E-08	6.449E-08	3.010E-08	1.806E-08	1.220E-08	9.405E-09	
91.939	95.623	96.103	96.423	96.797	97.731	98.906	99.947	100.000	
8.03477	8.35665	8.39864	8.42663	8.45928	8.54092	8.64355	8.73452	8.73919	

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.118
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 0.593

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 2.047
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 5.670

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
14	1	-11.07050	-16.78363	-1.23898
14	2	-13.01641	-17.43472	-1.45311
14	3	-13.77855	-16.79696	-1.19964
14	4	-14.34482	-17.03831	-1.31771
14	5	-14.95230	NUMXQ(K)= 5	
		2.485E-06	0.087	1.000
		1.550E-06	0.262	3.000
		1.211E-06	0.437	5.000
		8.781E-07	0.874	10.000
		7.304E-07	1.311	15.000
		6.370E-07	1.748	20.000
		5.687E-07	2.185	25.000
		5.135E-07	2.622	30.000
		4.699E-07	3.059	35.000
		4.343E-07	3.496	40.000
		4.045E-07	3.933	45.000
		3.791E-07	4.370	50.000
		3.571E-07	4.807	55.000
		3.378E-07	5.244	60.000
		1.132E-06	0.5	5.72

ANNUAL AVERAGE = 2.34E-10

K= 14 FIVEXQ(K)= 1.132E-06 FIVEPR(K)= 5.721

FUMIGATION X/Q AT THE BOUNDARY: 1.30E-04

EXPONENTIAL TERM AND FREQUENCIES

5.684E-01	5.200E-01	4.072E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
0.667	4.591	6.005	16.423	63.481	96.423	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 136 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE SE SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER BLDG WAKE USED
AT 131.4 METERS												
CA=1292.SQ.METERS												
A	6.0	0.04	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	2.427E-06	
A	8.9	0.06	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	1.640E-06	
A	26.5	0.02	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	5.516E-07	
B	3.6	0.08	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	2.858E-06	
B	6.0	0.04	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.715E-06	
B	8.9	0.19	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.159E-06	
B	11.6	0.08	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	8.931E-07	
C	3.6	0.06	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06	
C	6.0	0.55	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06	
C	8.9	0.74	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07	
C	11.6	0.59	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	6.230E-07	
C	26.5	0.13	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	2.719E-07	
D	0.2	0.00	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05	
D	1.7	0.76	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06	
D	3.6	4.10	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06	
D	6.0	11.52	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07	
D	8.9	22.08	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07	
D	11.6	11.54	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07	
D	26.5	3.91	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07	
E	0.3	0.01	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06	
E	1.8	0.83	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06	
E	3.9	3.61	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07	
E	6.5	11.03	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07	
E	9.6	13.83	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07	
E	12.5	1.89	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07	
E	28.5	0.13	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08	
F	0.3	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06	
F	1.8	0.55	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07	
F	3.9	2.00	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07	
F	6.5	3.78	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07	
F	9.6	1.91	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07	
G	1.8	0.28	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08	
G	3.9	1.49	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08	

G	6.5	1.95	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	0.19	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 138 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1 96.3 meters

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

SE SECTOR BOUNDARY DISTANCE = 280.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.858E-06	2.427E-06	2.224E-06	1.994E-06	1.715E-06	1.640E-06	1.262E-06
0.002	0.008	0.014	0.099	0.141	0.906	0.970	1.013	1.076	1.905
0.00019	0.00084	0.00154	0.01087	0.01553	0.09950	0.10650	0.11117	0.11816	0.20913
1.196E-06	1.159E-06	1.038E-06	8.931E-07	8.082E-07	6.875E-07	6.230E-07	6.226E-07	5.890E-07	5.516E-07
2.457	2.649	6.749	6.834	7.578	8.130	8.725	20.241	23.853	23.874
0.26978	0.29077	0.74095	0.75028	0.83192	0.89256	0.95787	2.22210	2.61863	2.62096
4.207E-07	3.534E-07	3.243E-07	3.208E-07	2.719E-07	2.388E-07	1.925E-07	1.841E-07	1.415E-07	1.301E-07
45.949	56.976	68.513	70.510	70.637	84.469	88.251	90.142	94.051	95.963
5.04446	6.25504	7.52160	7.74085	7.75485	9.27332	9.68851	9.89611	10.32529	10.53522
8.032E-08	6.449E-08	3.010E-08	1.806E-08	1.220E-08					
96.091	96.367	97.854	99.809	100.000					
10.54921	10.57954	10.74281	10.95741	10.97840					

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (2) = 0.099

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (3) = 0.740

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (4)= 5.041
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (5)= 7.737

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
15	1	-11.07050	-16.94794	-1.27152
15	2	-13.01641	-16.61528	-1.16393
15	3	-13.77855	-16.54197	-1.13385
15	4	-14.68142	-16.72098	-1.24294
15	5	-14.95230	NUMXQ(K) = 5	
		2.149E-06	0.110	1.000
		1.438E-06	0.329	3.000
		1.175E-06	0.549	5.000
		8.797E-07	1.098	10.000
		7.352E-07	1.647	15.000
		6.432E-07	2.196	20.000
		5.774E-07	2.745	25.000
		5.270E-07	3.294	30.000
		4.868E-07	3.842	35.000
		4.536E-07	4.391	40.000
		4.255E-07	4.940	45.000
		3.996E-07	5.489	50.000
		3.766E-07	6.038	55.000
		3.564E-07	6.587	60.000
		3.385E-07	7.136	65.000
		3.224E-07	7.685	70.000
		1.220E-06	0.5	4.55

ANNUAL AVERAGE = 5.77E-11

K= 15 FIVEXQ(K)= 1.220E-06 FIVEPR(K)= 4.554

FUMIGATION X/Q AT THE BOUNDARY: 1.30E-04

EXPONENTIAL TERM AND FREQUENCIES

5.684E-01	5.200E-01	4.072E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
0.127	2.210	2.613	10.863	64.767	96.091	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 140 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE SSE SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	3.6	0.02	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	4.045E-06			
A	6.0	0.17	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	2.427E-06			
A	8.9	0.32	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	1.640E-06			
A	11.6	0.02	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	1.264E-06			
A	26.5	0.02	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	5.516E-07			
B	3.6	0.06	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	2.858E-06			
B	6.0	0.48	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.715E-06			
B	8.9	0.71	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.159E-06			
B	11.6	0.11	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	8.931E-07			
C	3.6	0.48	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06			
C	6.0	2.16	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06			
C	8.9	2.01	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07			
C	11.6	0.37	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	6.230E-07			
D	0.2	0.00	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05			
D	1.7	1.08	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06			
D	3.6	8.31	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06			
D	6.0	20.04	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07			
D	8.9	19.82	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07			
D	11.6	5.23	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07			
D	26.5	1.36	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07			
E	0.3	0.01	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06			
E	1.8	0.73	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06			
E	3.9	4.38	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07			
E	6.5	11.10	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07			
E	9.6	10.11	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07			
E	12.5	0.93	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07			
E	28.5	0.22	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08			
F	0.3	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06			
F	1.8	0.48	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07			
F	3.9	2.09	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07			
F	6.5	2.72	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07			
F	9.6	0.69	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07			
F	12.5	0.11	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.003E-07			

Calculation No. PM-1055 Revision 0**Attachment J****Page 141 of 1411**

G	1.8	0.41	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	1.27	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	1.84	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	0.11	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08
G	28.5	0.02	90000.	0.	131.	1000 0	46.0	0.0	0.000E+00	0.000E+00	4.104E-09

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 142 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

SSE SECTOR BOUNDARY DISTANCE = 280.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	4.045E-06	2.858E-06	2.427E-06	2.224E-06	1.994E-06	1.715E-06	1.640E-06
0.002	0.008	0.013	0.035	0.100	0.272	1.352	1.827	2.302	2.626
0.00026	0.00083	0.00142	0.00375	0.01075	0.02941	0.14604	0.19735	0.24867	0.28366
1.264E-06	1.262E-06	1.196E-06	1.159E-06	1.038E-06	8.931E-07	8.082E-07	6.875E-07	6.230E-07	6.226E-07
2.648	3.382	5.542	6.254	14.568	14.676	16.685	17.160	17.527	37.568
0.28599	0.36529	0.59855	0.67552	1.57354	1.58520	1.80213	1.85344	1.89310	4.05768
5.890E-07	5.516E-07	4.207E-07	3.534E-07	3.243E-07	3.208E-07	2.388E-07	1.925E-07	1.841E-07	1.415E-07
41.951	41.973	61.798	72.898	78.124	80.219	90.325	93.046	93.975	95.335
4.53118	4.53352	6.67477	7.87369	8.43816	8.66442	9.75604	10.04994	10.15024	10.29718
1.301E-07	1.003E-07	8.032E-08	6.449E-08	3.010E-08	1.806E-08	1.220E-08	4.104E-09		
96.026	96.134	96.350	96.761	98.035	99.870	99.978	100.000		
10.37183	10.38349	10.40681	10.45113	10.58875	10.78701	10.79868	10.80101		

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.197
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 4.528

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 6.671

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
16	1	-11.07050	-16.67065	-1.22977
16	2	-13.12558	-15.69990	-0.89302
16	3	-13.77855	-16.43273	-1.23363
16	4	-14.34482	-17.31614	-1.75559
16	5	-14.68142	NUMXQ(K) = 5	
		2.502E-06	0.108	1.000
		1.728E-06	0.324	3.000
		1.480E-06	0.540	5.000
		1.182E-06	1.080	10.000
		1.023E-06	1.620	15.000
		8.846E-07	2.160	20.000
		7.868E-07	2.700	25.000
		7.127E-07	3.240	30.000
		6.539E-07	3.780	35.000
		6.056E-07	4.320	40.000
		5.553E-07	4.860	45.000
		5.074E-07	5.401	50.000
		4.669E-07	5.941	55.000
		4.320E-07	6.481	60.000
		1.516E-06	0.5	4.63

ANNUAL AVERAGE = 2.78E-10

K= 16 FIVEXQ(K)= 1.516E-06 FIVEPR(K)= 4.629

FUMIGATION X/Q AT THE BOUNDARY: 1.30E-04

EXPONENTIAL TERM AND FREQUENCIES

5.684E-01	5.200E-01	4.072E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
0.561	5.572	6.932	13.028	68.876	96.350	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 144 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE ALL SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)
CLASS	METER/SEC	PERCENT	METERS	METERS			METERS		METERS	METERS	METERS	MEANDER BLDG WAKE USED
AT 131.4 METERS												
CA=1292.SQ.METERS												
A	1.7	0.01	500.	0.			131.		100.2	123.6	0.0	0.000E+00 0.000E+00 8.668E-06
A	3.6	0.51	500.	0.			131.		100.2	123.6	0.0	0.000E+00 0.000E+00 4.045E-06
A	6.0	0.53	500.	0.			131.		100.2	123.6	0.0	0.000E+00 0.000E+00 2.427E-06
A	8.9	0.28	500.	0.			131.		100.2	123.6	0.0	0.000E+00 0.000E+00 1.640E-06
A	11.6	0.06	500.	0.			131.		100.2	123.6	0.0	0.000E+00 0.000E+00 1.264E-06
A	26.5	0.03	500.	0.			131.		100.2	123.6	0.0	0.000E+00 0.000E+00 5.516E-07
B	1.7	0.05	900.	0.			131.		128.1	98.0	0.0	0.000E+00 0.000E+00 6.124E-06
B	3.6	0.47	900.	0.			131.		128.1	98.0	0.0	0.000E+00 0.000E+00 2.858E-06
B	6.0	0.54	900.	0.			131.		128.1	98.0	0.0	0.000E+00 0.000E+00 1.715E-06
B	8.9	0.44	900.	0.			131.		128.1	98.0	0.0	0.000E+00 0.000E+00 1.159E-06
B	11.6	0.12	900.	0.			131.		128.1	98.0	0.0	0.000E+00 0.000E+00 8.931E-07
B	26.5	0.03	900.	0.			131.		128.1	98.0	0.0	0.000E+00 0.000E+00 3.897E-07
C	1.7	0.08	2000.	0.			131.		200.0	114.9	0.0	0.000E+00 0.000E+00 4.272E-06
C	3.6	0.77	2000.	0.			131.		200.0	114.9	0.0	0.000E+00 0.000E+00 1.994E-06
C	6.0	1.33	2000.	0.			131.		200.0	114.9	0.0	0.000E+00 0.000E+00 1.196E-06
C	8.9	1.04	2000.	0.			131.		200.0	114.9	0.0	0.000E+00 0.000E+00 8.082E-07
C	11.6	0.30	2000.	0.			131.		200.0	114.9	0.0	0.000E+00 0.000E+00 6.230E-07
C	26.5	0.13	2000.	0.			131.		200.0	114.9	0.0	0.000E+00 0.000E+00 2.719E-07
D	0.2	0.00	4000.	0.			131.		263.4	78.0	0.0	0.000E+00 0.000E+00 1.556E-05
D	1.7	2.07	4000.	0.			131.		263.4	78.0	0.0	0.000E+00 0.000E+00 2.224E-06
D	3.6	9.39	4000.	0.			131.		263.4	78.0	0.0	0.000E+00 0.000E+00 1.038E-06
D	6.0	15.72	4000.	0.			131.		263.4	78.0	0.0	0.000E+00 0.000E+00 6.226E-07
D	8.9	12.23	4000.	0.			131.		263.4	78.0	0.0	0.000E+00 0.000E+00 4.207E-07
D	11.6	4.24	4000.	0.			131.		263.4	78.0	0.0	0.000E+00 0.000E+00 3.243E-07
D	26.5	1.39	4000.	0.			131.		263.4	78.0	0.0	0.000E+00 0.000E+00 1.415E-07
E	0.3	0.01	9000.	0.			131.		389.6	74.2	0.0	0.000E+00 0.000E+00 8.835E-06
E	1.8	1.97	9000.	0.			131.		389.6	74.2	0.0	0.000E+00 0.000E+00 1.262E-06
E	3.9	8.90	9000.	0.			131.		389.6	74.2	0.0	0.000E+00 0.000E+00 5.890E-07
E	6.5	13.85	9000.	0.			131.		389.6	74.2	0.0	0.000E+00 0.000E+00 3.534E-07
E	9.6	9.53	9000.	0.			131.		389.6	74.2	0.0	0.000E+00 0.000E+00 2.388E-07
E	12.5	1.29	9000.	0.			131.		389.6	74.2	0.0	0.000E+00 0.000E+00 1.841E-07
E	28.5	0.23	9000.	0.			131.		389.6	74.2	0.0	0.000E+00 0.000E+00 8.032E-08
F	0.3	0.01	90000.	0.			131.		1000.0	92.1	0.0	0.000E+00 0.000E+00 4.813E-06
F	1.8	1.01	90000.	0.			131.		1000.0	92.1	0.0	0.000E+00 0.000E+00 6.875E-07

Calculation No. PM-1055 Revision 0
Attachment J
Page 145 of 1411

F	3.9	3.14	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07
F	6.5	3.52	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07
F	9.6	1.55	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07
F	12.5	0.16	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.003E-07
F	28.5	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.375E-08
G	1.8	0.43	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	1.17	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	1.14	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	0.31	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08
G	12.5	0.01	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	9.405E-09
G	28.5	0.00	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	4.104E-09

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 146 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

DIRECTION-INDEPENDENT (S.R.P 2.3.4) MODEL.

MINIMUM BOUNDARY DISTANCE = 280.0 METERS.

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	8.668E-06	6.124E-06	4.813E-06	4.272E-06	4.045E-06	2.858E-06	2.427E-06	2.224E-06
0.005	0.019	0.026	0.072	0.084	0.161	0.674	1.145	1.677	3.744
0.00467	0.01866	0.02566	0.07231	0.08397	0.16094	0.67410	1.14527	1.67709	3.74370
1.994E-06	1.715E-06	1.640E-06	1.264E-06	1.262E-06	1.196E-06	1.159E-06	1.038E-06	8.931E-07	8.082E-07
4.509	5.052	5.330	5.388	7.354	8.684	9.125	18.516	18.637	19.680
4.50877	5.05225	5.32982	5.38813	7.35445	8.68399	9.12484	18.51558	18.63687	19.67951
6.875E-07	6.230E-07	6.226E-07	5.890E-07	5.516E-07	4.207E-07	3.897E-07	3.534E-07	3.243E-07	3.208E-07
20.689	20.993	36.712	45.608	45.636	57.865	57.900	71.746	75.987	79.129
20.68949	20.99272	36.71161	45.60785	45.63584	57.86527	57.90026	71.74612	75.98666	79.12857
2.719E-07	2.388E-07	1.925E-07	1.841E-07	1.415E-07	1.301E-07	1.003E-07	8.032E-08	6.449E-08	4.375E-08
79.254	88.781	92.298	93.593	94.980	96.534	96.695	96.923	97.357	97.369
79.25452	88.78055	92.29800	93.59254	94.98039	96.53386	96.69480	96.92339	97.35724	97.36890
3.010E-08	1.806E-08	1.220E-08	9.405E-09	4.104E-09					
98.542	99.678	99.986	99.995	100.000					
98.54216	99.67810	99.98599	99.99532	99.99998					

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS

Calculation No. PM-1055 Revision 0

Attachment J

Page 147 of 1411

SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

3.662E-06	1.000	1.000
2.436E-06	3.000	3.000
1.977E-06	5.000	5.000
1.446E-06	10.000	10.000
1.171E-06	15.000	15.000
9.978E-07	20.000	20.000
8.845E-07	25.000	25.000
7.938E-07	30.000	30.000
7.180E-07	35.000	35.000
6.529E-07	40.000	40.000
5.956E-07	45.000	45.000
5.478E-07	50.000	50.000
5.043E-07	55.000	55.000
4.636E-07	60.000	60.000
4.249E-07	65.000	65.000
3.877E-07	70.000	70.000
3.511E-07	75.000	75.000

1.977E-06	5.0	5.00
-----------	-----	------

K= 17 FIVEXQ(K)= 1.977E-06 FIVEPR(K)= 5.000

FUMIGATION X/Q AT THE BOUNDARY: 1.30E-04

EXPONENTIAL TERM AND FREQUENCIES

5.684E-01	5.200E-01	4.072E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
1.416	5.059	6.718	16.125	61.163	96.935	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 148 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

FIVE PERCENT OVERALL SITE LIMIT

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	8.668E-06	6.124E-06	4.813E-06	4.272E-06	4.045E-06	2.858E-06	2.427E-06	2.224E-06
0.005	0.019	0.026	0.072	0.084	0.161	0.674	1.145	1.677	3.744
0.00467	0.01866	0.02566	0.07231	0.08397	0.16094	0.67410	1.14527	1.67709	3.74370
1.994E-06	1.715E-06	1.640E-06	1.264E-06	1.262E-06	1.196E-06	1.159E-06	1.038E-06	8.931E-07	8.082E-07
4.509	5.052	5.330	5.388	7.354	8.684	9.125	18.516	18.637	19.680
4.50877	5.05225	5.32982	5.38813	7.35445	8.68399	9.12484	18.51558	18.63688	19.67952
6.875E-07	6.230E-07	6.226E-07	5.890E-07	5.516E-07	4.207E-07	3.897E-07	3.534E-07	3.243E-07	3.208E-07
20.689	20.993	36.712	45.608	45.636	57.865	57.900	71.746	75.987	79.129
20.68950	20.99273	36.71161	45.60786	45.63585	57.86527	57.90026	71.74612	75.98665	79.12857
2.719E-07	2.388E-07	1.925E-07	1.841E-07	1.415E-07	1.301E-07	1.003E-07	8.032E-08	6.449E-08	4.375E-08
79.255	88.781	92.298	93.593	94.980	96.534	96.695	96.923	97.357	97.369
79.25453	88.78056	92.29800	93.59256	94.98041	96.53387	96.69481	96.92340	97.35724	97.36890
3.010E-08	1.806E-08	1.220E-08	9.405E-09	4.104E-09					
98.542	99.678	99.986	99.995	100.000					
98.54216	99.67809	99.98598	99.99532	99.99998					

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS

Calculation No. PM-1055 Revision 0

SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

Attachment J

Page 149 of 1411

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
18	1	-11.07050	-14.64728	-0.91538
18	2	-13.01641	-14.54922	-0.86034
18	3	-13.77855	-14.42414	-0.72071
18	4	-14.34482	-14.41743	-0.65976
18	5	-14.95230	NUMXQ(K)= 5	
		3.662E-06	1.000	1.000
		2.436E-06	3.000	3.000
		1.977E-06	5.000	5.000
		1.446E-06	10.000	10.000
		1.171E-06	15.000	15.000
		9.978E-07	20.000	20.000
		8.845E-07	25.000	25.000
		7.938E-07	30.000	30.000
		7.180E-07	35.000	35.000
		6.529E-07	40.000	40.000
		5.956E-07	45.000	45.000
		5.478E-07	50.000	50.000
		5.043E-07	55.000	55.000
		4.636E-07	60.000	60.000
		4.249E-07	65.000	65.000
		3.877E-07	70.000	70.000
		3.511E-07	75.000	75.000
		1.977E-06	5.0	5.00

K= 18 FIVEXQ(K)= 1.977E-06 FIVEPR(K)= 5.000

K	HIGHPR	PR	GRNDVT(K)
1	-3.06052	0.11048	6.21119
2	-2.00327	2.25740	3.52599
3	-2.79824	0.25691	3.10868
4	-2.68650	0.36103	3.53145
5	-2.57624	0.49942	4.76778
6	-2.75266	0.29557	4.27759
7	-3.06855	0.10756	5.37148
8	-3.25087	0.05753	5.07527
9	-3.17144	0.07585	10.00153
10	-3.29988	0.04837	5.86355
11	-3.25284	0.05714	4.96796
12	-3.40963	0.03253	4.95848
13	-3.27701	0.05246	7.82046
14	-3.20434	0.06769	8.73919
15	-3.25156	0.05739	10.97840
16	-3.13645	0.08551	10.80101

K	HOURS(K)	TOTHR
1	9.67833	9.67833
2	197.74830	207.42660
3	22.50566	229.93230

Calculation No. PM-1055 Revision 0

Attachment J

Page 150 of 1411

4	31.62634	261.55860
5	43.74879	305.30740
6	25.89224	331.19960
7	9.42196	340.62160
8	5.03966	345.66130
9	6.64419	352.30550
10	4.23714	356.54260
11	5.00520	361.54780
12	2.84982	364.39760
13	4.59585	368.99350
14	5.92991	374.92340
15	5.02765	379.95100
16	7.49057	387.44160

K	FIVEXQ	SVANN	SLTIME	TIMINT	I	TIME	XQT
1	1.547E-06	1.807E-10	-1.0799	-12.6307	1	8.0	-14.87630
					2	16.0	-15.62484
					3	72.0	-17.24909
					4	624.0	-19.58112
2	1.537E-06	3.970E-10	-0.9852	-12.7027	1	8.0	-14.75147
					2	16.0	-15.43440
					3	72.0	-16.91628
					4	624.0	-19.04391
3	1.997E-06	9.272E-10	-0.9153	-12.4894	1	8.0	-14.39275
					2	16.0	-15.02720
					3	72.0	-16.40390
					4	624.0	-18.38051
4	2.335E-06	1.536E-09	-0.8738	-12.3620	1	8.0	-14.17892
					2	16.0	-14.78457
					3	72.0	-16.09879
					4	624.0	-17.98567
5	2.724E-06	3.066E-09	-0.8097	-12.2523	1	8.0	-13.93600
					2	16.0	-14.49724
					3	72.0	-15.71508
					4	624.0	-17.46361
6	2.196E-06	1.736E-09	-0.8519	-12.4383	1	8.0	-14.20970
					2	16.0	-14.80016
					3	72.0	-16.08142
					4	624.0	-17.92100
7	1.574E-06	4.896E-10	-0.9631	-12.6943	1	8.0	-14.69699
					2	16.0	-15.36456
					3	72.0	-16.81311
					4	624.0	-18.89289
8	1.303E-06	7.759E-11	-1.1602	-12.7469	1	8.0	-15.15951
					2	16.0	-15.96371

Calculation No. PM-1055 Revision 0

Attachment J

Page 151 of 1411

9	1.473E-06	2.273E-10	-1.0467	-12.7025	3	72.0	-17.70876
					4	624.0	-20.21421
10	1.246E-06	1.728E-10	-1.0594	-12.8616	1	8.0	-14.87909
					2	16.0	-15.60461
					3	72.0	-17.17893
					4	624.0	-19.43927
					1	8.0	-15.06460
11	1.217E-06	1.364E-10	-1.0848	-12.8674	2	16.0	-15.79892
					3	72.0	-17.39236
					4	624.0	-19.68014
					1	8.0	-15.12315
					2	16.0	-15.87506
12	1.120E-06	1.427E-10	-1.0696	-12.9605	3	72.0	-17.50666
					4	624.0	-19.84923
					1	8.0	-15.18466
					2	16.0	-15.92604
					3	72.0	-17.53478
13	1.266E-06	4.183E-10	-0.9559	-12.9170	4	624.0	-19.84453
					1	8.0	-14.90477
					2	16.0	-15.56736
					3	72.0	-17.00512
					4	624.0	-19.06938
14	1.132E-06	2.337E-10	-1.0120	-12.9897	1	8.0	-15.09409
					2	16.0	-15.79555
					3	72.0	-17.31767
					4	624.0	-19.50306
					1	8.0	-15.26317
15	1.220E-06	5.772E-11	-1.1877	-12.7935	2	16.0	-16.08640
					3	72.0	-17.87274
					4	624.0	-20.43748
					1	8.0	-14.82179
					2	16.0	-15.53306
16	1.516E-06	2.780E-10	-1.0261	-12.6880	3	72.0	-17.07645
					4	624.0	-19.29239
					1	8.0	-14.20331
					2	16.0	-14.73807
					3	72.0	-15.89847
17	1.977E-06	3.066E-09	-0.7715	-12.5990	4	624.0	-17.56451
					1	8.0	-14.20331
					2	16.0	-14.73807
					3	72.0	-15.89847
					4	624.0	-17.56451
18	1.977E-06	3.066E-09	-0.7715	-12.5990	1	8.0	-14.20331
					2	16.0	-14.73807
					3	72.0	-15.89847
					4	624.0	-17.56451
					1	8.0	-14.20331

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 152 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

RELATIVE CONCENTRATION (X/Q) VALUES (SEC/CUBIC METER) VERSUS AVERAGING TIME

DOWNWIND DISTANCE								HOURS PER YEAR MAX 0-2 HR X/Q IS EXCEEDED	DOWNWIND
SECTOR	(METERS)	0-2 HOURS	0-8 HOURS	8-24 HOURS	1-4 DAYS	4-30 DAYS	ANNUAL AVERAGE	IN SECTOR	SECTOR
S	280.	1.55E-06	3.46E-07	1.64E-07	3.23E-08	3.13E-09	1.81E-10	9.7	S
SSW	280.	1.54E-06	3.92E-07	1.98E-07	4.50E-08	5.36E-09	3.97E-10	197.7	SSW
SW	280.	2.00E-06	5.61E-07	2.98E-07	7.51E-08	1.04E-08	9.27E-10	22.5	SW
WSW	280.	2.33E-06	6.95E-07	3.79E-07	1.02E-07	1.54E-08	1.54E-09	31.6	WSW
W	280.	2.72E-06	8.86E-07	5.06E-07	1.50E-07	2.60E-08	3.07E-09	43.7	W
WNW	280.	2.20E-06	6.74E-07	3.74E-07	1.04E-07	1.65E-08	1.74E-09	25.9	WNW
NW	280.	1.57E-06	4.14E-07	2.12E-07	4.99E-08	6.24E-09	4.90E-10	9.4	NW
NNW	280.	1.30E-06	2.61E-07	1.17E-07	2.04E-08	1.66E-09	7.76E-11	5.0	NNW
N	280.	1.47E-06	3.45E-07	1.67E-07	3.46E-08	3.61E-09	2.27E-10	6.6	N
NNE	280.	1.25E-06	2.87E-07	1.38E-07	2.80E-08	2.84E-09	1.73E-10	4.2	NNE
NE	280.	1.22E-06	2.70E-07	1.28E-07	2.49E-08	2.40E-09	1.36E-10	5.0	NE
ENE	280.	1.12E-06	2.54E-07	1.21E-07	2.43E-08	2.41E-09	1.43E-10	2.8	ENE
E	280.	1.27E-06	3.36E-07	1.73E-07	4.12E-08	5.23E-09	4.18E-10	4.6	E
ESE	280.	1.13E-06	2.78E-07	1.38E-07	3.01E-08	3.39E-09	2.34E-10	5.9	ESE
SE	280.	1.22E-06	2.35E-07	1.03E-07	1.73E-08	1.33E-09	5.77E-11	5.0	SE
SSE	280.	1.52E-06	3.66E-07	1.80E-07	3.84E-08	4.18E-09	2.78E-10	7.5	SSE
MAX X/Q		2.72E-06					TOTAL HOURS AROUND SITE:	387.4	
SRP 2.3.4	280.	1.98E-06	6.79E-07	3.97E-07	1.25E-07	2.35E-08	3.07E-09		
SITE LIMIT		1.98E-06	6.79E-07	3.98E-07	1.25E-07	2.35E-08	3.07E-09		

0.5 PERCENT X/Q TO AN INDIVIDUAL IS LIMITING.

X/Q VALUES (SEC/CUBIC METER) FOR FUMIGATION AT THE BOUNDARY:

DOWNWIND DISTANCE FUMIGATION

SECTOR	(METERS)	X/Q
S	280.	1.30E-04
SSW	280.	1.30E-04
SW	280.	1.30E-04
WSW	280.	1.30E-04
W	280.	1.30E-04
WNW	280.	1.30E-04
NW	280.	1.30E-04
NNW	280.	1.30E-04
N	280.	1.30E-04
NNE	280.	1.30E-04
NE	280.	1.30E-04
ENE	280.	1.30E-04
E	280.	1.30E-04

Calculation No. PM-1055 Revision 0**Attachment J****Page 153 of 1411**

ESE	280.	1.30E-04
SE	280.	1.30E-04
SSE	280.	1.30E-04

****NOTE**:** VALUES ON THIS PAGE ARE APPROXIMATIONS ONLY.
CHECK THE REASONABLENESS OF THE ENVELOPES
COMPUTED FOR THE 0-2 HOUR VALUES. FOR ANY
FAULTY ENVELOPES, ADJUST THE ABOVE VALUES.

PAVAN Input**Off Gas Stack to Control Room (Tower 2 320' wind and 316'-33' Delta T Stability Class; distances of 300 m and 500 m)**

1 1111

Peach Bottom

Stack Release

97.5 meters

10.1-96.3 meters

Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

```

7 1
2584. 54.3131.4 97.5
0 0 0 2 6 5 0
0. 0. 0. 0. 3. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0.
6. 9. 23. 39. 87. 44. 4. 2. 0. 2. 2. 0. 1. 0. 0. 1.
0. 9. 20. 29. 46. 44. 20. 2. 12. 7. 5. 7. 8. 9. 2. 8.
2. 4. 9. 18. 7. 3. 13. 0. 7. 3. 2. 3. 21. 9. 3. 15.
2. 2. 0. 1. 0. 1. 0. 0. 0. 0. 0. 2. 14. 2. 0. 1.
0. 0. 0. 0. 0. 1. 0. 0. 0. 0. 0. 2. 2. 5. 1. 1.
0. 2. 2. 9. 5. 0. 2. 0. 0. 0. 0. 0. 0. 0. 0. 0.
13. 23. 18. 25. 56. 29. 10. 3. 3. 4. 3. 1. 4. 3. 4. 3.
4. 15. 13. 15. 12. 25. 27. 8. 25. 14. 13. 8. 21. 9. 2. 22.
10. 3. 2. 1. 1. 2. 8. 8. 31. 9. 6. 19. 27. 20. 9. 33.
1. 2. 1. 0. 0. 1. 1. 1. 5. 2. 1. 2. 12. 14. 4. 5.
0. 0. 0. 0. 0. 0. 0. 0. 1. 0. 0. 1. 6. 7. 0. 0.
0. 5. 12. 15. 1. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0.
31. 22. 28. 37. 50. 65. 14. 12. 19. 5. 7. 3. 5. 5. 3. 22.
42. 19. 9. 17. 14. 26. 62. 22. 72. 37. 30. 26. 42. 26. 26. 100.
18. 8. 4. 3. 3. 4. 11. 10. 67. 24. 21. 31. 56. 59. 35. 93.
4. 1. 0. 0. 1. 2. 0. 1. 9. 0. 4. 4. 29. 30. 28. 17.
1. 4. 0. 0. 0. 0. 0. 0. 1. 0. 1. 1. 13. 27. 6. 0.
59. 58. 108. 119. 115. 86. 45. 35. 41. 23. 32. 15. 26. 38. 36. 50.
330. 211. 238. 336. 435. 304. 339. 243. 300. 191. 155. 128. 141. 97. 193. 385.
521. 349. 251. 278. 331. 308. 478. 466. 708. 425. 287. 211. 301. 355. 542. 928.
396. 154. 85. 67. 132. 140. 161. 118. 482. 166. 126. 190. 395. 674. 1039. 918.
73. 27. 13. 11. 32. 26. 14. 11. 99. 16. 16. 22. 225. 448. 543. 242.
15. 7. 12. 2. 8. 2. 7. 7. 29. 9. 3. 6. 90. 151. 184. 63.
60. 44. 36. 61. 60. 60. 61. 59. 70. 56. 59. 54. 54. 36. 39. 34.
235. 164. 150. 219. 283. 200. 345. 311. 435. 320. 281. 187. 173. 138. 170. 203.
367. 201. 156. 101. 161. 257. 349. 443. 891. 577. 354. 297. 395. 354. 519. 514.
156. 38. 26. 11. 58. 63. 98. 165. 516. 228. 216. 271. 536. 583. 651. 468.
23. 8. 8. 4. 12. 21. 16. 11. 64. 19. 18. 30. 78. 111. 89. 43.
7. 1. 1. 1. 20. 4. 12. 2. 6. 4. 2. 1. 9. 12. 6. 10.
26. 19. 22. 26. 31. 23. 28. 32. 32. 32. 33. 30. 28. 26. 22.
99. 38. 34. 29. 34. 52. 81. 90. 134. 141. 156. 117. 85. 66. 94. 97.
81. 25. 13. 8. 13. 24. 48. 79. 130. 111. 157. 177. 198. 140. 178. 126.
4. 1. 1. 0. 0. 2. 7. 8. 44. 23. 39. 109. 168. 138. 90. 32.
1. 0. 0. 0. 0. 0. 0. 0. 0. 3. 0. 18. 24. 18. 0. 5.
0. 0. 0. 0. 4. 1. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0.
11. 14. 11. 10. 13. 5. 4. 9. 17. 9. 6. 18. 13. 14. 13. 19.
47. 19. 22. 19. 13. 6. 28. 10. 34. 31. 36. 34. 40. 35. 70. 59.
16. 5. 4. 2. 2. 2. 8. 6. 10. 21. 51. 70. 69. 44. 92. 85.
1. 0. 0. 0. 0. 0. 1. 1. 2. 1. 8. 26. 39. 39. 9. 5.

```

[illegible]

```

2.    0.    0.
0.    0.    1.

300.0300.0300.
500.0500.0500.
  1.    1.    1.
  1.    1.    1.
500.0500.0500.
000.0000.0000.

```

PAVAN Output**Off Gas Stack to Control Room (Tower 2 320' wind and 316'-33' Delta T Stability Class; distances of 300 m and 500 m)**

Copyright (c) 1990 Ergo Computing, Inc. for Lahey

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

RUN DATE: 12/29/02

PRINTOUT OF INPUT CARDS

```

1      00010 01111 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 2      Peach Bottom
Stack Release
3      97.5 meters      10.1-96.3 meters
4
5      Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T      6      7 42872      1
7      0.500 2584.000      54.300 131.400 97.500
8      0.000 0.000 0.000 2.000 6.000 5.000 0.000
9      0.000 0.000 0.000 0.000 3.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
9      6.000 9.000 23.000 39.000 87.000 44.000 4.000 2.000 0.000 2.000 2.000 0.000 1.000 0.000 0.000 0.000 1.000
9      0.000 9.000 20.000 29.000 46.000 44.000 20.000 2.000 12.000 7.000 5.000 7.000 8.000 9.000 2.000 8.000
9      2.000 4.000 9.000 18.000 7.000 3.000 13.000 0.000 7.000 3.000 2.000 3.000 21.000 9.000 3.000 15.000
9      2.000 2.000 0.000 1.000 0.000 1.000 0.000 0.000 0.000 0.000 0.000 2.000 14.000 2.000 0.000 1.000
9      0.000 0.000 0.000 0.000 0.000 1.000 0.000 0.000 0.000 0.000 0.000 2.000 2.000 5.000 1.000 1.000
9      0.000 2.000 2.000 9.000 5.000 0.000 2.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
9      13.000 23.000 18.000 25.000 56.000 29.000 10.000 3.000 3.000 4.000 3.000 1.000 4.000 3.000 4.000 3.000
9      4.000 15.000 13.000 15.000 12.000 25.000 27.000 8.000 25.000 14.000 13.000 8.000 21.000 9.000 2.000 22.000
9      10.000 3.000 2.000 1.000 1.000 2.000 8.000 8.000 31.000 9.000 6.000 19.000 27.000 20.000 9.000 33.000
9      1.000 2.000 1.000 0.000 0.000 1.000 1.000 1.000 5.000 2.000 1.000 2.000 12.000 14.000 4.000 5.000
9      0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 1.000 0.000 0.000 1.000 6.000 7.000 0.000 0.000
9      0.000 5.000 12.000 15.000 1.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
9      31.000 22.000 28.000 37.000 50.000 65.000 14.000 12.000 19.000 5.000 7.000 3.000 5.000 5.000 3.000 22.000
9      42.000 19.000 9.000 17.000 14.000 26.000 62.000 22.000 72.000 37.000 30.000 26.000 42.000 26.000 26.000 100.000
9      18.000 8.000 4.000 3.000 3.000 4.000 11.000 10.000 67.000 24.000 21.000 31.000 56.000 59.000 35.000 93.000
9      4.000 1.000 0.000 0.000 1.000 2.000 0.000 1.000 9.000 0.000 4.000 4.000 29.000 30.000 28.000 17.000
9      1.000 4.000 0.000 0.000 0.000 0.000 0.000 0.000 1.000 0.000 1.000 1.000 13.000 27.000 6.000 0.000
9      59.000 58.000 108.000 119.000 115.000 86.000 45.000 35.000 41.000 23.000 32.000 15.000 26.000 38.000 36.000 50.000
9      330.000 211.000 238.000 336.000 435.000 304.000 339.000 243.000 300.000 191.000 155.000 128.000 141.000 97.000 193.000 385.000
9      521.000 349.000 251.000 278.000 331.000 308.000 478.000 466.000 708.000 425.000 287.000 211.000 301.000 355.000 542.000 928.000
9      396.000 154.000 85.000 67.000 132.000 140.000 161.000 118.000 482.000 166.000 126.000 190.000 395.000 674.000 *****918.000
9      73.000 27.000 13.000 11.000 32.000 26.000 14.000 11.000 99.000 16.000 16.000 22.000 225.000 448.000 543.000 242.000
9      15.000 7.000 12.000 2.000 8.000 2.000 7.000 7.000 29.000 9.000 3.000 6.000 90.000 151.000 184.000 63.000
9      60.000 44.000 36.000 61.000 60.000 60.000 61.000 59.000 70.000 56.000 59.000 54.000 54.000 36.000 39.000 34.000
9      235.000 164.000 150.000 219.000 283.000 200.000 345.000 311.000 435.000 320.000 281.000 187.000 173.000 138.000 170.000 203.000
9      367.000 201.000 156.000 101.000 161.000 257.000 349.000 443.000 891.000 577.000 354.000 297.000 395.000 354.000 519.000 514.000
9      156.000 38.000 26.000 11.000 58.000 63.000 98.000 165.000 516.000 228.000 216.000 271.000 536.000 583.000 651.000 468.000
9      23.000 8.000 8.000 4.000 12.000 21.000 16.000 11.000 64.000 19.000 18.000 30.000 78.000 111.000 89.000 43.000
9      7.000 1.000 1.000 1.000 20.000 4.000 12.000 2.000 6.000 4.000 2.000 1.000 9.000 12.000 6.000 10.000
9      26.000 19.000 22.000 26.000 31.000 23.000 28.000 32.000 23.000 32.000 32.000 33.000 30.000 28.000 26.000 22.000
9      99.000 38.000 34.000 29.000 34.000 52.000 81.000 90.000 134.000 141.000 156.000 117.000 85.000 66.000 94.000 97.000
9      81.000 25.000 13.000 8.000 13.000 24.000 48.000 79.000 130.000 111.000 157.000 177.000 198.000 140.000 178.000 126.000
9      4.000 1.000 1.000 0.000 0.000 2.000 7.000 8.000 44.000 23.000 39.000 109.000 168.000 138.000 90.000 32.000
9      1.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 3.000 0.000 18.000 24.000 18.000 0.000 5.000

```

Calculation No. PM-1055 Revision 0

Attachment J

Page 157 of 1411

[illegible]

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 158 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION
ATMOSPHERIC STABILITY CLASS A

WIND SPEED (M/S)

TOWER RELEASE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
0.22 0.24	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.56 1.69	0.000	0.000	0.000	0.000	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.007
3.35 3.61	0.014	0.021	0.054	0.091	0.203	0.103	0.009	0.005	0.000	0.005	0.005	0.000	0.002	0.000	0.000	0.002	0.513
5.59 6.02	0.000	0.021	0.047	0.068	0.107	0.103	0.047	0.005	0.028	0.016	0.012	0.016	0.019	0.021	0.005	0.019	0.532
8.27 8.91	0.005	0.009	0.021	0.042	0.016	0.007	0.030	0.000	0.016	0.007	0.005	0.007	0.049	0.021	0.007	0.035	0.278
10.73 11.56	0.005	0.005	0.000	0.002	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.005	0.033	0.005	0.000	0.002	0.058
24.59 26.49	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.005	0.005	0.012	0.002	0.002	0.028
TOTAL	0.02	0.06	0.12	0.20	0.33	0.22	0.09	0.01	0.04	0.03	0.02	0.03	0.11	0.06	0.01	0.06	1.42

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION
ATMOSPHERIC STABILITY CLASS B

WIND SPEED (M/S)

TOWER RELEASE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
0.22 0.24	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.56 1.69	0.000	0.005	0.005	0.021	0.012	0.000	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.047
3.35 3.61	0.030	0.054	0.042	0.058	0.131	0.068	0.023	0.007	0.007	0.009	0.007	0.002	0.009	0.007	0.009	0.007	0.471
5.59 6.02	0.009	0.035	0.030	0.035	0.028	0.058	0.063	0.019	0.058	0.033	0.030	0.019	0.049	0.021	0.005	0.051	0.543
8.27 8.91	0.023	0.007	0.005	0.002	0.002	0.005	0.019	0.019	0.072	0.021	0.014	0.044	0.063	0.047	0.021	0.077	0.441
10.73 11.56	0.002	0.005	0.002	0.000	0.000	0.002	0.002	0.002	0.012	0.005	0.002	0.005	0.028	0.033	0.009	0.012	0.121
24.59 26.49	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.002	0.014	0.016	0.000	0.000	0.035
TOTAL	0.07	0.10	0.08	0.12	0.17	0.13	0.11	0.05	0.15	0.07	0.05	0.07	0.16	0.12	0.04	0.15	1.66

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION
ATMOSPHERIC STABILITY CLASS C

WIND SPEED (M/S)

TOWER RELEASE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
0.22 0.24	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.56 1.69	0.000	0.012	0.028	0.035	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.077
3.35 3.61	0.072	0.051	0.065	0.086	0.117	0.152	0.033	0.028	0.044	0.012	0.016	0.007	0.012	0.012	0.007	0.051	0.765
5.59 6.02	0.098	0.044	0.021	0.040	0.033	0.061	0.145	0.051	0.168	0.086	0.070	0.061	0.098	0.061	0.061	0.233	1.330
8.27 8.91	0.042	0.019	0.009	0.007	0.007	0.009	0.026	0.023	0.156	0.056	0.049	0.072	0.131	0.138	0.082	0.217	1.043
10.73 11.56	0.009	0.002	0.000	0.000	0.002	0.005	0.000	0.002	0.021	0.000	0.009	0.009	0.068	0.070	0.065	0.040	0.303
24.59 26.49	0.002	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.002	0.002	0.030	0.063	0.014	0.000	0.126
TOTAL	0.22	0.14	0.12	0.17	0.16	0.23	0.20	0.10	0.39	0.15	0.15	0.15	0.34	0.34	0.23	0.54	3.64

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION
ATMOSPHERIC STABILITY CLASS D

WIND SPEED (M/S)

TOWER RELEASE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
0.22 0.24	0.000	0.000	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.005
1.56 1.69	0.138	0.135	0.252	0.278	0.268	0.201	0.105	0.082	0.096	0.054	0.075	0.035	0.061	0.089	0.084	0.117	2.067

Calculation No. PM-1055 Revision 0
Attachment J
Page 159 of 1411

3.35	3.61	0.770	0.492	0.555	0.784	1.015	0.709	0.791	0.567	0.700	0.446	0.362	0.299	0.329	0.226	0.450	0.898	9.391
5.59	6.02	1.215	0.814	0.585	0.648	0.772	0.718	1.115	1.087	1.651	0.991	0.669	0.492	0.702	0.828	1.264	2.165	15.719
8.27	8.91	0.924	0.359	0.198	0.156	0.308	0.327	0.376	0.275	1.124	0.387	0.294	0.443	0.921	1.572	2.423	2.141	12.229
10.73	11.56	0.170	0.063	0.030	0.026	0.075	0.061	0.033	0.026	0.231	0.037	0.037	0.051	0.525	1.045	1.267	0.564	4.241
24.59	26.49	0.035	0.016	0.028	0.005	0.019	0.005	0.016	0.016	0.068	0.021	0.007	0.014	0.210	0.352	0.429	0.147	1.388
TOTAL		3.25	1.88	1.65	1.90	2.46	2.02	2.44	2.05	3.87	1.94	1.44	1.33	2.75	4.11	5.92	6.03	45.04

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION
WIND SPEED (M/S)
ATMOSPHERIC STABILITY CLASS E

TOWER RELEASE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
0.22 0.26	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.014
1.56 1.82	0.140	0.103	0.084	0.142	0.140	0.140	0.142	0.138	0.163	0.131	0.138	0.126	0.126	0.084	0.091	0.079	1.966
3.35 3.89	0.548	0.383	0.350	0.511	0.660	0.467	0.805	0.725	1.015	0.746	0.655	0.436	0.404	0.322	0.397	0.474	8.896
5.59 6.49	0.856	0.469	0.364	0.236	0.376	0.599	0.814	1.033	2.078	1.346	0.826	0.693	0.921	0.826	1.211	1.199	13.846
8.27 9.60	0.364	0.089	0.061	0.026	0.135	0.147	0.229	0.385	1.204	0.532	0.504	0.632	1.250	1.360	1.518	1.092	9.526
10.73 12.46	0.054	0.019	0.019	0.009	0.028	0.049	0.037	0.026	0.149	0.044	0.042	0.070	0.182	0.259	0.208	0.100	1.295
24.59 28.54	0.016	0.002	0.002	0.002	0.047	0.009	0.028	0.005	0.014	0.009	0.005	0.002	0.021	0.028	0.014	0.023	0.229
TOTAL	1.98	1.06	0.88	0.93	1.39	1.41	2.06	2.31	4.62	2.81	2.17	1.96	2.90	2.88	3.44	2.97	35.77

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION
WIND SPEED (M/S)
ATMOSPHERIC STABILITY CLASS F

TOWER RELEASE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
0.22 0.26	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.012
1.56 1.82	0.061	0.044	0.051	0.061	0.072	0.054	0.065	0.075	0.054	0.075	0.075	0.077	0.070	0.065	0.061	0.051	1.010
3.35 3.89	0.231	0.089	0.079	0.068	0.079	0.121	0.189	0.210	0.313	0.329	0.364	0.273	0.198	0.154	0.219	0.226	3.142
5.59 6.49	0.189	0.058	0.030	0.019	0.030	0.056	0.112	0.184	0.303	0.259	0.366	0.413	0.462	0.327	0.415	0.294	3.517
8.27 9.60	0.009	0.002	0.002	0.000	0.000	0.005	0.016	0.019	0.103	0.054	0.091	0.254	0.392	0.322	0.210	0.075	1.553
10.73 12.46	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.007	0.000	0.042	0.056	0.042	0.000	0.012	0.161
24.59 28.54	0.000	0.000	0.000	0.000	0.009	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.012
TOTAL	0.49	0.19	0.16	0.15	0.19	0.24	0.38	0.49	0.77	0.72	0.90	1.06	1.18	0.91	0.91	0.66	9.41

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION
WIND SPEED (M/S)
ATMOSPHERIC STABILITY CLASS G

TOWER RELEASE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
0.22 0.26	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.56 1.82	0.026	0.033	0.026	0.023	0.030	0.012	0.009	0.021	0.040	0.021	0.014	0.042	0.030	0.033	0.030	0.044	0.434
3.35 3.89	0.110	0.044	0.051	0.044	0.030	0.014	0.065	0.023	0.079	0.072	0.084	0.079	0.093	0.082	0.163	0.138	1.173
5.59 6.49	0.037	0.012	0.009	0.005	0.005	0.005	0.019	0.014	0.023	0.049	0.119	0.163	0.161	0.103	0.215	0.198	1.136
8.27 9.60	0.002	0.000	0.000	0.000	0.000	0.000	0.002	0.002	0.005	0.002	0.019	0.061	0.091	0.091	0.021	0.012	0.308
10.73 12.46	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.002	0.005	0.000	0.000	0.009
24.59 28.54	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.002	0.005
TOTAL	0.17	0.09	0.09	0.07	0.07	0.03	0.10	0.06	0.15	0.14	0.24	0.35	0.38	0.31	0.43	0.39	3.06

WIND MEASURED AT 97.5 METERS.

WIND SPEED CORRECTED TO THE RELEASE HEIGHT OF 131.4 METERS.

OVERALL WIND DIRECTION FREQUENCY

WIND DIRECTION:	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
FREQUENCY:	6.2	3.5	3.1	3.5	4.8	4.3	5.4	5.1	10.0	5.9	5.0	5.0	7.8	8.7	11.0	10.8

OVERALL WIND SPEED FREQUENCY AS MEASURED ON THE TOWER:

MAX.WIND SPEED (M/S): 0.224 1.565 3.353 5.588 8.270 10.729 24.587
 WIND SPEED FREQUENCY: 0.03 5.61 24.35 36.62 25.38 6.19 1.82

BUILDING AND RELEASE CHARACTERISTICS:

RELEASE HEIGHT: 131.40 METERS
 MIXING VOLUME COEFFICIENT: 0.50
 BUILDING CROSS-SECTIONAL AREA: 2584.00 SQUARE METERS

BOUNDARY DISTANCES (METERS) FROM THE SOURCE FOR EACH DOWNWIND SECTOR:

DOWNWIND SECTOR	S	SSW	SW	WSW	W	WNW	NW	NNW	N	NNE	NE	ENE	E	ESE	SE	SSE
BOUNDARY 1	300.	300.	300.	300.	300.	300.	300.	300.	300.	300.	300.	300.	300.	300.	300.	300.
BOUNDARY 2	500.	500.	500.	500.	500.	500.	500.	500.	500.	500.	500.	500.	500.	500.	500.	500.

DISTANCES AND TERRAIN HEIGHTS (IN METERS) AS A FUNCTION OF THE DOWNWIND SECTOR:

SECTOR	S	SSW	SW	WSW	W	WNW	NW	NNW	N	NNE	NE	ENE	E	ESE	SE	SSE
DISTANCE	500.	500.	500.	500.	500.	500.	500.	500.	500.	500.	500.	500.	500.	500.	500.	500.
ELEVATION	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

THE CONVERSION FACTOR APPLIED TO THE WIND SPEED CLASSES IS 0.447

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 161 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

WINDSPEEDS ADJUSTED TO 131.4 METERS.

PERCENT OF THE TIME A GIVEN WINDSPEED IS LOWER:

WINDSPEED (METER/SEC)	CUMULATIVE FREQUENCY (PERCENT)
0.24	0.00
0.26	0.03
1.69	2.23
1.82	5.64
3.61	16.78
3.89	29.99
6.02	48.11
6.49	66.61
8.91	80.60
9.60	91.99
11.56	96.71
12.46	98.18
26.49	99.76
28.54	100.00

WINDSPEED (INTERPOLATED) (METER/SEC)	CUMULATIVE FREQUENCY (PERCENT)
0.26	0.03
1.77	5.64
3.76	29.99
6.26	66.61
9.22	91.99
11.77	98.18
26.77	100.00

LOG-NORMAL INTERPOLATION PERCENTILES

WINDSPEED (METER/SEC)	CUMULATIVE FREQUENCY (PERCENT)
0.81	1.00
1.30	3.00
1.66	5.00
2.19	10.00
2.61	15.00
3.00	20.00

3.38	25.00
3.76	30.00
4.05	35.00
4.35	40.00
4.66	45.00
4.98	50.00
5.32	55.00
5.70	60.00
6.11	65.00
6.50	70.00
6.90	75.00
7.37	80.00
8.11	85.00
8.78	90.00

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 163 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE S SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	3.6	0.23	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	4.045E-06			
A	8.9	0.08	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	1.640E-06			
A	11.6	0.08	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	1.264E-06			
B	3.6	0.49	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	2.858E-06			
B	6.0	0.15	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.715E-06			
B	8.9	0.38	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.159E-06			
B	11.6	0.04	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	8.931E-07			
C	3.6	1.16	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06			
C	6.0	1.58	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06			
C	8.9	0.68	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07			
C	11.6	0.15	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	6.230E-07			
C	26.5	0.04	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	2.719E-07			
D	0.2	0.01	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05			
D	1.7	2.22	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06			
D	3.6	12.39	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06			
D	6.0	19.57	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07			
D	8.9	14.87	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07			
D	11.6	2.74	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07			
D	26.5	0.56	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07			
E	0.3	0.02	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06			
E	1.8	2.25	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06			
E	3.9	8.83	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07			
E	6.5	13.78	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07			
E	9.6	5.86	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07			
E	12.5	0.86	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07			
E	28.5	0.26	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08			
F	0.3	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06			
F	1.8	0.98	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07			
F	3.9	3.72	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07			
F	6.5	3.04	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07			
F	9.6	0.15	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07			
F	12.5	0.04	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.003E-07			
G	1.8	0.41	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08			

Calculation No. PM-1055 Revision 0**Attachment J****Page 164 of 1411**

G	3.9	1.77	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	0.60	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	0.04	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 165 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1 96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

S SECTOR BOUNDARY DISTANCE = 300.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	4.045E-06	2.858E-06	2.224E-06	1.994E-06	1.715E-06	1.640E-06	1.264E-06
0.005	0.021	0.032	0.258	0.746	2.961	4.126	4.276	4.351	4.426
0.00031	0.00131	0.00201	0.01600	0.04633	0.18394	0.25625	0.26558	0.27025	0.27491
1.262E-06	1.196E-06	1.159E-06	1.038E-06	8.931E-07	8.082E-07	6.875E-07	6.230E-07	6.226E-07	5.890E-07
6.679	8.257	8.632	21.025	21.062	21.738	22.715	22.865	42.430	51.255
0.41486	0.51283	0.53616	1.30589	1.30822	1.35021	1.41085	1.42018	2.63543	3.18357
4.207E-07	3.534E-07	3.243E-07	3.208E-07	2.719E-07	2.388E-07	1.925E-07	1.841E-07	1.415E-07	1.301E-07
66.127	79.909	82.650	86.368	86.406	92.264	95.306	96.170	96.733	96.883
4.10725	4.96329	5.13356	5.36448	5.36681	5.73069	5.91962	5.97327	6.00826	6.01759
1.003E-07	8.032E-08	6.449E-08	3.010E-08	1.806E-08	1.220E-08				
96.921	97.183	97.597	99.362	99.962	100.000				
6.01992	6.03625	6.06191	6.17153	6.20886	6.21119				

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.256

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 1.304

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (4)= 3.181
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (5)= 4.960

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
1	1	-11.07050	-16.47142	-1.19518
1	2	-13.12558	-16.30722	-1.13653
1	3	-13.77855	-17.18353	-1.53040
1	4	-14.34482	-18.94210	-2.47847
1	5	-14.85564	NUMXQ(K)= 5	
		3.332E-06	0.062	1.000
		2.250E-06	0.186	3.000
		1.857E-06	0.311	5.000
		1.419E-06	0.621	10.000
		1.201E-06	0.932	15.000
		1.061E-06	1.242	20.000
		9.350E-07	1.553	25.000
		8.354E-07	1.863	30.000
		7.578E-07	2.174	35.000
		6.951E-07	2.484	40.000
		6.430E-07	2.795	45.000
		5.990E-07	3.106	50.000
		5.446E-07	3.416	55.000
		4.938E-07	3.727	60.000
		4.506E-07	4.037	65.000
		4.134E-07	4.348	70.000
		3.812E-07	4.658	75.000
		1.547E-06	0.5	8.05

ANNUAL AVERAGE = 3.32E-10

K= 1 FIVEXQ(K)= 1.547E-06 FIVEPR(K)= 8.050

FUMIGATION X/Q AT THE BOUNDARY: 1.22E-04

EXPONENTIAL TERM AND FREQUENCIES

5.684E-01	5.200E-01	4.072E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
0.376	3.981	5.032	12.967	65.322	97.183	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 167 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE SSW SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	3.6	0.60	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	4.045E-06			
A	6.0	0.60	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	2.427E-06			
A	8.9	0.26	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	1.640E-06			
A	11.6	0.13	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	1.264E-06			
B	1.7	0.13	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	6.124E-06			
B	3.6	1.52	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	2.858E-06			
B	6.0	0.99	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.715E-06			
B	8.9	0.20	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.159E-06			
B	11.6	0.13	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	8.931E-07			
C	1.7	0.33	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	4.272E-06			
C	3.6	1.46	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06			
C	6.0	1.26	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06			
C	8.9	0.53	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07			
C	11.6	0.07	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	6.230E-07			
C	26.5	0.26	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	2.719E-07			
D	0.2	0.01	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05			
D	1.7	3.84	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06			
D	3.6	13.96	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06			
D	6.0	23.09	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07			
D	8.9	10.19	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07			
D	11.6	1.79	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07			
D	26.5	0.46	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07			
E	0.3	0.02	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06			
E	1.8	2.91	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06			
E	3.9	10.85	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07			
E	6.5	13.30	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07			
E	9.6	2.51	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07			
E	12.5	0.53	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07			
E	28.5	0.07	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08			
F	0.3	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06			
F	1.8	1.26	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07			
F	3.9	2.51	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07			
F	6.5	1.65	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07			
F	9.6	0.07	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07			

G	1.8	0.93	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	1.26	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	0.33	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 169 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1 96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

SSW SECTOR BOUNDARY DISTANCE = 300.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	6.124E-06	4.813E-06	4.272E-06	4.045E-06	2.858E-06	2.427E-06	2.224E-06	1.994E-06
0.009	0.029	0.162	0.176	0.507	1.102	2.624	3.219	7.056	8.511
0.00031	0.00104	0.00570	0.00621	0.01788	0.03887	0.09252	0.11351	0.24880	0.30011
1.715E-06	1.640E-06	1.264E-06	1.262E-06	1.196E-06	1.159E-06	1.038E-06	8.931E-07	8.082E-07	6.875E-07
9.504	9.768	9.901	12.811	14.068	14.267	28.225	28.357	28.886	30.143
0.33510	0.34443	0.34909	0.45172	0.49604	0.50304	0.99520	0.99987	1.01853	1.06285
6.230E-07	6.226E-07	5.890E-07	4.207E-07	3.534E-07	3.243E-07	3.208E-07	2.719E-07	2.388E-07	1.925E-07
30.209	53.296	64.145	74.333	87.630	89.416	91.929	92.194	94.708	96.362
1.06518	1.87923	2.26176	2.62097	3.08981	3.15279	3.24142	3.25075	3.33939	3.39770
1.841E-07	1.415E-07	1.301E-07	8.032E-08	6.449E-08	3.010E-08	1.806E-08			
96.891	97.354	97.420	97.486	98.412	99.669	100.000			
3.41636	3.43269	3.43502	3.43736	3.47001	3.51433	3.52599			

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2) = 0.249

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3) = 0.994

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 2.259

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 3.087

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
2	1	-11.07050	-16.20624	-1.13559
2	2	-13.01641	-17.47309	-1.58660
2	3	-13.77855	-17.82714	-1.73864
2	4	-14.34482	-21.93911	-3.79166
2	5	-14.85564	NUMXQ(K)= 5	
		4.290E-06	0.035	1.000
		3.004E-06	0.106	3.000
		2.517E-06	0.176	5.000
		1.855E-06	0.353	10.000
		1.490E-06	0.529	15.000
		1.268E-06	0.705	20.000
		1.115E-06	0.881	25.000
		9.970E-07	1.058	30.000
		9.001E-07	1.234	35.000
		8.223E-07	1.410	40.000
		7.583E-07	1.587	45.000
		7.044E-07	1.763	50.000
		6.583E-07	1.939	55.000
		6.184E-07	2.116	60.000
		5.767E-07	2.292	65.000
		5.119E-07	2.468	70.000
		4.575E-07	2.644	75.000
		4.114E-07	2.821	80.000
		3.719E-07	2.997	85.000
		1.537E-06	0.5	14.18

ANNUAL AVERAGE = 7.30E-10

K= 2 FIVEXQ(K)= 1.537E-06 FIVEPR(K)=14.180

FUMIGATION X/Q AT THE BOUNDARY: 1.22E-04

EXPONENTIAL TERM AND FREQUENCIES

5.684E-01	5.200E-01	4.072E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
1.588	5.491	8.467	13.973	67.300	97.486	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 171 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE SW SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	3.6	1.73	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	4.045E-06			
A	6.0	1.50	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	2.427E-06			
A	8.9	0.68	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	1.640E-06			
B	1.7	0.15	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	6.124E-06			
B	3.6	1.35	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	2.858E-06			
B	6.0	0.98	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.715E-06			
B	8.9	0.15	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.159E-06			
B	11.6	0.08	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	8.931E-07			
C	1.7	0.90	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	4.272E-06			
C	3.6	2.10	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06			
C	6.0	0.68	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06			
C	8.9	0.30	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07			
D	0.2	0.02	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05			
D	1.7	8.10	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06			
D	3.6	17.86	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06			
D	6.0	18.83	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07			
D	8.9	6.38	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07			
D	11.6	0.98	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07			
D	26.5	0.90	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07			
E	0.3	0.02	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06			
E	1.8	2.70	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06			
E	3.9	11.25	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07			
E	6.5	11.71	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07			
E	9.6	1.95	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07			
E	12.5	0.60	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07			
E	28.5	0.08	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08			
F	0.3	0.02	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06			
F	1.8	1.65	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07			
F	3.9	2.55	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07			
F	6.5	0.98	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07			
F	9.6	0.08	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07			
G	1.8	0.83	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08			
G	3.9	1.65	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08			

G	6.5	0.30	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
---	-----	------	--------	----	------	--------	------	-----	-----------	-----------	-----------

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 173 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

SW SECTOR BOUNDARY DISTANCE = 300.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	6.124E-06	4.813E-06	4.272E-06	4.045E-06	2.858E-06	2.427E-06	2.224E-06	1.994E-06
0.018	0.038	0.188	0.207	1.107	2.833	4.183	5.684	13.788	15.888
0.00057	0.00117	0.00583	0.00642	0.03441	0.08806	0.13005	0.17670	0.42861	0.49392
1.715E-06	1.640E-06	1.262E-06	1.196E-06	1.159E-06	1.038E-06	8.931E-07	8.082E-07	6.875E-07	6.226E-07
16.864	17.539	20.240	20.916	21.066	38.923	38.999	39.299	40.949	59.783
0.52424	0.54524	0.62921	0.65020	0.65487	1.21001	1.21234	1.22167	1.27298	1.85845
5.890E-07	4.207E-07	3.534E-07	3.243E-07	3.208E-07	2.388E-07	1.925E-07	1.841E-07	1.415E-07	1.301E-07
71.037	77.415	89.120	90.096	92.647	94.598	95.573	96.173	97.074	97.149
2.20833	2.40659	2.77047	2.80079	2.88009	2.94074	2.97106	2.98972	3.01771	3.02005
8.032E-08	6.449E-08	3.010E-08	1.806E-08						
97.224	98.049	99.700	100.000						
3.02238	3.04804	3.09935	3.10868						

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.088
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 0.428

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 1.209
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 2.206
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(6)= 2.768

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
3	1	-11.07050	-15.76030	-1.06849
3	2	-12.41800	-16.16917	-1.19920
3	3	-13.01641	-18.36423	-2.03412
3	4	-13.77855	-19.06598	-2.34541
3	5	-14.34482	-24.96016	-5.27354
3	6	-14.85564	NUMXQ(K) = 6	
		5.539E-06	0.031	1.000
		3.964E-06	0.093	3.000
		3.295E-06	0.155	5.000
		2.529E-06	0.311	10.000
		2.097E-06	0.466	15.000
		1.710E-06	0.622	20.000
		1.453E-06	0.777	25.000
		1.268E-06	0.933	30.000
		1.127E-06	1.088	35.000
		1.012E-06	1.243	40.000
		9.092E-07	1.399	45.000
		8.246E-07	1.554	50.000
		7.539E-07	1.710	55.000
		6.940E-07	1.865	60.000
		6.424E-07	2.021	65.000
		5.976E-07	2.176	70.000
		5.221E-07	2.332	75.000
		4.518E-07	2.487	80.000
		3.938E-07	2.642	85.000
		1.997E-06	0.5	16.08

ANNUAL AVERAGE = 1.70E-09

K= 3 FIVEXQ(K)= 1.997E-06 FIVEPR(K)=16.084

FUMIGATION X/Q AT THE BOUNDARY: 1.22E-04

EXPONENTIAL TERM AND FREQUENCIES

5.684E-01	5.200E-01	4.072E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
3.902	7.878	10.580	15.851	68.917	97.224	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 175 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE WSW SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	3.6	2.58	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	4.045E-06			
A	6.0	1.92	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	2.427E-06			
A	8.9	1.19	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	1.640E-06			
A	11.6	0.07	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	1.264E-06			
B	1.7	0.59	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	6.124E-06			
B	3.6	1.65	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	2.858E-06			
B	6.0	0.99	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.715E-06			
B	8.9	0.07	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.159E-06			
C	1.7	0.99	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	4.272E-06			
C	3.6	2.44	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06			
C	6.0	1.12	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06			
C	8.9	0.20	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07			
D	0.2	0.02	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05			
D	1.7	7.86	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06			
D	3.6	22.19	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06			
D	6.0	18.36	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07			
D	8.9	4.43	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07			
D	11.6	0.73	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07			
D	26.5	0.13	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07			
E	0.3	0.03	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06			
E	1.8	4.03	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06			
E	3.9	14.46	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07			
E	6.5	6.67	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07			
E	9.6	0.73	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07			
E	12.5	0.26	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07			
E	28.5	0.07	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08			
F	0.3	0.02	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06			
F	1.8	1.72	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07			
F	3.9	1.92	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07			
F	6.5	0.53	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07			
G	1.8	0.66	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08			
G	3.9	1.25	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08			
G	6.5	0.13	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08			

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 176 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

SITE EXCLUSION BOUNDARY CALCULATIONS:

WSW SECTOR BOUNDARY DISTANCE = 300.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	6.124E-06	4.813E-06	4.272E-06	4.045E-06	2.858E-06	2.427E-06	2.224E-06	1.994E-06
0.018	0.046	0.641	0.661	1.651	4.227	5.879	7.794	15.654	18.098
0.00063	0.00164	0.02263	0.02333	0.05832	0.14929	0.20760	0.27524	0.55282	0.63912
1.715E-06	1.640E-06	1.264E-06	1.262E-06	1.196E-06	1.159E-06	1.038E-06	8.082E-07	6.875E-07	6.226E-07
19.089	20.278	20.344	24.373	25.496	25.562	47.754	47.953	49.670	68.032
0.67411	0.71609	0.71842	0.86071	0.90036	0.90269	1.68642	1.69342	1.75407	2.40251
5.890E-07	4.207E-07	3.534E-07	3.243E-07	3.208E-07	2.388E-07	1.925E-07	1.841E-07	1.415E-07	8.032E-08
82.497	86.922	93.593	94.320	96.235	96.962	97.490	97.754	97.886	97.952
2.91333	3.06961	3.30519	3.33085	3.39849	3.42415	3.44281	3.45214	3.45681	3.45914
6.449E-08	3.010E-08	1.806E-08							
98.613	99.868	100.000							
3.48247	3.52678	3.53145							

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(3)=	0.552
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(4)=	1.685

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 2.911

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
4	1	-11.07050	-15.27913	-0.96350
4	2	-12.41800	-16.56801	-1.39754
4	3	-13.01641	-17.65467	-1.82513
4	4	-13.77855	-19.01550	-2.46590
4	5	-14.34482	NUMXQ(K)= 5	
		6.050E-06	0.035	1.000
		4.471E-06	0.106	3.000
		3.762E-06	0.177	5.000
		2.753E-06	0.353	10.000
		2.270E-06	0.530	15.000
		1.898E-06	0.706	20.000
		1.636E-06	0.883	25.000
		1.445E-06	1.059	30.000
		1.297E-06	1.236	35.000
		1.180E-06	1.413	40.000
		1.084E-06	1.589	45.000
		9.912E-07	1.766	50.000
		9.005E-07	1.942	55.000
		8.240E-07	2.119	60.000
		7.585E-07	2.295	65.000
		7.019E-07	2.472	70.000
		6.524E-07	2.649	75.000
		6.089E-07	2.825	80.000
		2.335E-06	0.5	14.16

ANNUAL AVERAGE = 2.82E-09

K= 4 FIVEXQ(K)= 2.335E-06 FIVEPR(K)=14.158

FUMIGATION X/Q AT THE BOUNDARY: 1.22E-04

EXPONENTIAL TERM AND FREQUENCIES

5.684E-01	5.200E-01	4.072E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
5.746	10.502	13.804	17.985	71.702	97.952	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 178 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE W SECTOR.

STABILITY CLASS	WINDSPEED METER/SEC	FREQUENCY PERCENT	DISTANCE METERS	TERRAIN METERS	HT EFF METERS	PLUME HT METERS	SIGMA-Y METERS	SIGMA-Z METERS	MEANDER-SY METERS	** CHI/Q VALUES (SEC/CUBIC METER)		
										MEANDER	BLDG WAKE	USED
AT 131.4 METERS										CA=1292.SQ.METERS		
A	1.7	0.15	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	8.668E-06	
A	3.6	4.26	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	4.045E-06	
A	6.0	2.25	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	2.427E-06	
A	8.9	0.34	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	1.640E-06	
B	1.7	0.24	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	6.124E-06	
B	3.6	2.74	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	2.858E-06	
B	6.0	0.59	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.715E-06	
B	8.9	0.05	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.159E-06	
C	1.7	0.05	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	4.272E-06	
C	3.6	2.45	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06	
C	6.0	0.68	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06	
C	8.9	0.15	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07	
C	11.6	0.05	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	6.230E-07	
D	0.2	0.01	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05	
D	1.7	5.63	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06	
D	3.6	21.28	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06	
D	6.0	16.19	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07	
D	8.9	6.46	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07	
D	11.6	1.57	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07	
D	26.5	0.39	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07	
E	0.3	0.02	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06	
E	1.8	2.94	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06	
E	3.9	13.85	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07	
E	6.5	7.88	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07	
E	9.6	2.84	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07	
E	12.5	0.59	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07	
E	28.5	0.98	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08	
F	0.3	0.02	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06	
F	1.8	1.52	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07	
F	3.9	1.66	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07	
F	6.5	0.64	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07	
F	28.5	0.20	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.375E-08	
G	1.8	0.64	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08	

G	3.9	0.64	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	0.10	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 180 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

W SECTOR BOUNDARY DISTANCE = 300.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	8.668E-06	6.124E-06	4.813E-06	4.272E-06	4.045E-06	2.858E-06	2.427E-06	2.224E-06
0.013	0.034	0.180	0.425	0.442	0.491	4.748	7.487	9.738	15.364
0.00061	0.00160	0.00860	0.02026	0.02110	0.02343	0.22636	0.35698	0.46428	0.73252
1.994E-06	1.715E-06	1.640E-06	1.262E-06	1.196E-06	1.159E-06	1.038E-06	8.082E-07	6.875E-07	6.230E-07
17.810	18.397	18.740	21.675	22.360	22.409	43.690	43.837	45.353	45.402
0.84914	0.87713	0.89346	1.03341	1.06607	1.06840	2.08305	2.09005	2.16235	2.16469
6.226E-07	5.890E-07	4.207E-07	3.534E-07	3.243E-07	3.208E-07	2.388E-07	1.925E-07	1.841E-07	1.415E-07
61.596	75.441	81.899	89.775	91.341	93.004	95.842	96.478	97.065	97.456
2.93675	3.59686	3.90475	4.28029	4.35493	4.43423	4.56952	4.59984	4.62783	4.64649
8.032E-08	6.449E-08	4.375E-08	3.010E-08	1.806E-08					
98.434	99.070	99.266	99.902	100.000					
4.69314	4.72347	4.73280	4.76312	4.76779					

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED.

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 0.732
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 2.081

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 3.594
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(6)= 4.431

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
5	1	-11.07050	-14.90832	-0.87711
5	2	-12.41800	-16.68802	-1.50394
5	3	-13.01641	-17.62189	-1.88646
5	4	-13.77855	-18.63791	-2.38516
5	5	-14.34482	-25.59808	-6.25210
5	6	-14.95230	NUMXQ(K)= 6	
		6.082E-06	0.048	1.000
		4.587E-06	0.143	3.000
		3.946E-06	0.238	5.000
		2.792E-06	0.477	10.000
		2.253E-06	0.715	15.000
		1.853E-06	0.954	20.000
		1.580E-06	1.192	25.000
		1.382E-06	1.430	30.000
		1.231E-06	1.669	35.000
		1.111E-06	1.907	40.000
		1.008E-06	2.146	45.000
		9.065E-07	2.384	50.000
		8.225E-07	2.622	55.000
		7.516E-07	2.861	60.000
		6.910E-07	3.099	65.000
		6.385E-07	3.337	70.000
		5.928E-07	3.576	75.000
		4.980E-07	3.814	80.000
		4.178E-07	4.053	85.000
		3.535E-07	4.291	90.000
		2.724E-06	0.5	10.49

ANNUAL AVERAGE = 5.62E-09

K= 5 FIVEXQ(K)= 2.724E-06 FIVEPR(K)=10.487

FUMIGATION X/Q AT THE BOUNDARY: 1.22E-04

EXPONENTIAL TERM AND FREQUENCIES

5.684E-01	5.200E-01	4.072E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
6.996	10.372	13.992	18.021	69.549	98.630	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 182 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE WNW SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)			
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED	
AT 131.4 METERS												CA=1292.SQ.METERS			
A	3.6	2.40	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	4.045E-06				
A	6.0	2.40	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	2.427E-06				
A	8.9	0.16	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	1.640E-06				
A	11.6	0.05	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	1.264E-06				
A	26.5	0.05	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	5.516E-07				
B	3.6	1.58	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	2.858E-06				
B	6.0	1.36	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.715E-06				
B	8.9	0.11	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.159E-06				
B	11.6	0.05	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	8.931E-07				
C	3.6	3.54	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06				
C	6.0	1.42	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06				
C	8.9	0.22	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07				
C	11.6	0.11	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	6.230E-07				
D	0.2	0.01	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05				
D	1.7	4.69	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06				
D	3.6	16.58	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06				
D	6.0	16.79	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07				
D	8.9	7.63	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07				
D	11.6	1.42	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07				
D	26.5	0.11	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07				
E	0.3	0.02	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06				
E	1.8	3.27	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06				
E	3.9	10.91	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07				
E	6.5	14.01	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07				
E	9.6	3.44	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07				
E	12.5	1.15	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07				
E	28.5	0.22	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08				
F	0.3	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06				
F	1.8	1.25	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07				
F	3.9	2.84	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07				
F	6.5	1.31	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07				
F	9.6	0.11	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07				
F	28.5	0.05	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.375E-08				

Calculation No. PM-1055 Revision 0**Attachment J****Page 183 of 1411**

G	1.8	0.27	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	0.33	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	0.11	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 184 of 1411

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

WNW SECTOR BOUNDARY DISTANCE = 300.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	4.045E-06	2.858E-06	2.427E-06	2.224E-06	1.994E-06	1.715E-06	1.640E-06
0.011	0.034	0.048	2.448	4.029	6.428	11.118	14.662	16.025	16.189
0.00045	0.00145	0.00207	0.10470	0.17234	0.27497	0.47557	0.62719	0.68550	0.69250
1.264E-06	1.262E-06	1.196E-06	1.159E-06	1.038E-06	8.931E-07	8.082E-07	6.875E-07	6.230E-07	6.226E-07
16.243	19.515	20.933	21.042	37.619	37.673	37.891	39.146	39.255	56.050
0.69483	0.83478	0.89543	0.90009	1.60918	1.61151	1.62084	1.67449	1.67915	2.39757
5.890E-07	5.516E-07	4.207E-07	3.534E-07	3.243E-07	3.208E-07	2.388E-07	1.925E-07	1.841E-07	1.415E-07
66.955	67.010	74.644	88.658	90.076	92.911	96.347	97.655	98.800	98.909
2.86408	2.86641	3.19296	3.79242	3.85307	3.97436	4.12131	4.17729	4.22627	4.23094
1.301E-07	8.032E-08	6.449E-08	4.375E-08	3.010E-08	1.806E-08				
99.018	99.237	99.509	99.564	99.891	100.000				
4.23560	4.24493	4.25659	4.25893	4.27292	4.27759				

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 0.626
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 1.607

Calculation No. PM-1055 Revision 0

Attachment J

Page 185 of 1411

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 2.861
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(6)= 3.789

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
6	1	-11.07050	-15.46296	-0.98963
6	2	-12.41800	-16.17186	-1.22003
6	3	-13.12558	-17.72706	-1.84289
6	4	-13.77855	-18.81308	-2.34976
6	5	-14.34482	-22.06134	-4.05796
6	6	-14.85564	NUMXQ(K)= 6	
		5.219E-06	0.043	1.000
		3.754E-06	0.128	3.000
		3.094E-06	0.214	5.000
		2.344E-06	0.428	10.000
		1.964E-06	0.642	15.000
		1.621E-06	0.856	20.000
		1.391E-06	1.069	25.000
		1.223E-06	1.283	30.000
		1.094E-06	1.497	35.000
		9.792E-07	1.711	40.000
		8.749E-07	1.925	45.000
		7.896E-07	2.139	50.000
		7.187E-07	2.353	55.000
		6.586E-07	2.567	60.000
		6.072E-07	2.780	65.000
		5.441E-07	2.994	70.000
		4.806E-07	3.208	75.000
		4.273E-07	3.422	80.000
		3.822E-07	3.636	85.000
		2.196E-06	0.5	11.69

ANNUAL AVERAGE = 3.18E-09

K= 6 FIVEXQ(K)= 2.196E-06 FIVEPR(K)=11.689

FUMIGATION X/Q AT THE BOUNDARY: 1.22E-04

EXPONENTIAL TERM AND FREQUENCIES

5.684E-01	5.200E-01	4.072E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
5.071	10.361	13.469	19.045	66.278	99.291	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 186 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION.

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE NW SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS			METERS		METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	3.6	0.17	500.	0.			131.		100.2	123.6	0.0	0.000E+00	0.000E+00	4.045E-06
A	6.0	0.87	500.	0.			131.		100.2	123.6	0.0	0.000E+00	0.000E+00	2.427E-06
A	8.9	0.56	500.	0.			131.		100.2	123.6	0.0	0.000E+00	0.000E+00	1.640E-06
B	1.7	0.09	900.	0.			131.		128.1	98.0	0.0	0.000E+00	0.000E+00	6.124E-06
B	3.6	0.43	900.	0.			131.		128.1	98.0	0.0	0.000E+00	0.000E+00	2.858E-06
B	6.0	1.17	900.	0.			131.		128.1	98.0	0.0	0.000E+00	0.000E+00	1.715E-06
B	8.9	0.35	900.	0.			131.		128.1	98.0	0.0	0.000E+00	0.000E+00	1.159E-06
B	11.6	0.04	900.	0.			131.		128.1	98.0	0.0	0.000E+00	0.000E+00	8.931E-07
C	3.6	0.61	2000.	0.			131.		200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06
C	6.0	2.69	2000.	0.			131.		200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06
C	8.9	0.48	2000.	0.			131.		200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07
D	0.2	0.00	4000.	0.			131.		263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05
D	1.7	1.95	4000.	0.			131.		263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06
D	3.6	14.72	4000.	0.			131.		263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06
D	6.0	20.76	4000.	0.			131.		263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07
D	8.9	6.99	4000.	0.			131.		263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07
D	11.6	0.61	4000.	0.			131.		263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07
D	26.5	0.30	4000.	0.			131.		263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07
E	0.3	0.02	9000.	0.			131.		389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06
E	1.8	2.65	9000.	0.			131.		389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06
E	3.9	14.98	9000.	0.			131.		389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07
E	6.5	15.16	9000.	0.			131.		389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07
E	9.6	4.26	9000.	0.			131.		389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07
E	12.5	0.69	9000.	0.			131.		389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07
E	28.5	0.52	9000.	0.			131.		389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08
F	0.3	0.01	90000.	0.			131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06
F	1.8	1.22	90000.	0.			131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07
F	3.9	3.52	90000.	0.			131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07
F	6.5	2.08	90000.	0.			131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07
F	9.6	0.30	90000.	0.			131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07
G	1.8	0.17	90000.	0.			131.		1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	1.22	90000.	0.			131.		1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	0.35	90000.	0.			131.		1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08

G	9.6	0.04	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08
---	-----	------	--------	----	------	--------	------	-----	-----------	-----------	-----------

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 188 of 1411

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

NW SECTOR BOUNDARY DISTANCE = 300.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	6.124E-06	4.813E-06	4.045E-06	2.858E-06	2.427E-06	2.224E-06	1.994E-06	1.715E-06
0.004	0.023	0.110	0.124	0.298	0.732	1.601	3.555	4.163	5.335
0.00024	0.00125	0.00591	0.00667	0.01600	0.03932	0.08597	0.19094	0.22359	0.28657
1.640E-06	1.262E-06	1.196E-06	1.159E-06	1.038E-06	8.931E-07	8.082E-07	6.875E-07	6.226E-07	5.890E-07
5.900	8.548	11.241	11.588	26.309	26.352	26.830	28.046	48.803	63.784
0.31689	0.45918	0.60380	0.62246	1.41318	1.41551	1.44117	1.50648	2.62143	3.42615
4.207E-07	3.534E-07	3.243E-07	3.208E-07	2.388E-07	1.925E-07	1.841E-07	1.415E-07	1.301E-07	8.032E-08
70.775	85.931	86.538	90.056	94.311	96.396	97.091	97.395	97.698	98.220
3.80169	4.61574	4.64839	4.83733	5.06591	5.17788	5.21520	5.23152	5.24785	5.27584
6.449E-08	3.010E-08	1.806E-08	1.220E-08						
98.393	99.609	99.957	100.000						
5.28517	5.35048	5.36914	5.37148						

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.191
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 1.412

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 3.423
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 4.612

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
7	1	-11.07050	-16.36184	-1.15635
7	2	-13.01641	-16.17063	-1.09026
7	3	-13.77855	-17.11755	-1.52184
7	4	-14.34482	-21.07552	-3.69421
7	5	-14.85564	NUMXQ(K)= 5	
		3.440E-06	0.054	1.000
		2.364E-06	0.161	3.000
		1.975E-06	0.269	5.000
		1.532E-06	0.537	10.000
		1.308E-06	0.806	15.000
		1.164E-06	1.074	20.000
		1.060E-06	1.343	25.000
		9.586E-07	1.611	30.000
		8.718E-07	1.880	35.000
		8.016E-07	2.149	40.000
		7.432E-07	2.417	45.000
		6.938E-07	2.686	50.000
		6.513E-07	2.954	55.000
		6.141E-07	3.223	60.000
		5.707E-07	3.491	65.000
		5.038E-07	3.760	70.000
		4.478E-07	4.029	75.000
		4.005E-07	4.297	80.000
		3.603E-07	4.566	85.000
		1.574E-06	0.5	9.31

ANNUAL AVERAGE = 9.00E-10

K= 7 FIVEXQ(K)= 1.574E-06 FIVEPR(K)= 9.308

FUMIGATION X/Q AT THE BOUNDARY: 1.22E-04

EXPONENTIAL TERM AND FREQUENCIES

5.684E-01	5.200E-01	4.072E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
1.607	5.385	7.469	14.605	59.944	98.220	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 190 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE NNW SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	3.6	0.09	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	4.045E-06			
A	6.0	0.09	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	2.427E-06			
B	3.6	0.14	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	2.858E-06			
B	6.0	0.37	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.715E-06			
B	8.9	0.37	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.159E-06			
B	11.6	0.05	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	8.931E-07			
C	3.6	0.55	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06			
C	6.0	1.01	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06			
C	8.9	0.46	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07			
C	11.6	0.05	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	6.230E-07			
D	0.2	0.00	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05			
D	1.7	1.61	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06			
D	3.6	11.17	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06			
D	6.0	21.42	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07			
D	8.9	5.42	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07			
D	11.6	0.51	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07			
D	26.5	0.32	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07			
E	0.3	0.02	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06			
E	1.8	2.71	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06			
E	3.9	14.29	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07			
E	6.5	20.36	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07			
E	9.6	7.58	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07			
E	12.5	0.51	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07			
E	28.5	0.09	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08			
F	0.3	0.02	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06			
F	1.8	1.47	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07			
F	3.9	4.14	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07			
F	6.5	3.63	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07			
F	9.6	0.37	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07			
G	1.8	0.41	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08			
G	3.9	0.46	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08			
G	6.5	0.28	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08			
G	9.6	0.05	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08			

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 191 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

NNW SECTOR BOUNDARY DISTANCE = 300.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	4.045E-06	2.858E-06	2.427E-06	2.224E-06	1.994E-06	1.715E-06	1.262E-06
0.004	0.023	0.040	0.132	0.270	0.362	1.970	2.522	2.889	5.601
0.00018	0.00116	0.00203	0.00669	0.01369	0.01835	0.09999	0.12798	0.14664	0.28426
1.196E-06	1.159E-06	1.038E-06	8.931E-07	8.082E-07	6.875E-07	6.230E-07	6.226E-07	5.890E-07	4.207E-07
6.612	6.980	18.148	18.194	18.653	20.124	20.170	41.587	55.880	61.303
0.33558	0.35424	0.92104	0.92337	0.94670	1.02134	1.02367	2.11063	2.83604	3.11128
3.534E-07	3.243E-07	3.208E-07	2.388E-07	1.925E-07	1.841E-07	1.415E-07	1.301E-07	8.032E-08	6.449E-08
81.662	82.168	86.304	93.887	97.518	98.024	98.345	98.713	98.805	99.219
4.14459	4.17025	4.38017	4.76504	4.94931	4.97497	4.99130	5.00996	5.01462	5.03561
3.010E-08	1.806E-08	1.220E-08							
99.678	99.954	100.000							
5.05894	5.07293	5.07527							

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.100
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 0.920

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 2.833
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 4.141

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
8	1	-11.07050	-16.92746	-1.26549
8	2	-13.01641	-16.22955	-1.03967
8	3	-13.77855	-16.73458	-1.25389
8	4	-14.34482	-20.02675	-2.98127
8	5	-14.85564	NUMXQ(K)= 5	
		2.850E-06	0.051	1.000
		1.948E-06	0.152	3.000
		1.648E-06	0.254	5.000
		1.296E-06	0.508	10.000
		1.116E-06	0.761	15.000
		9.915E-07	1.015	20.000
		8.911E-07	1.269	25.000
		8.147E-07	1.523	30.000
		7.539E-07	1.776	35.000
		7.039E-07	2.030	40.000
		6.618E-07	2.284	45.000
		6.256E-07	2.538	50.000
		5.941E-07	2.791	55.000
		5.366E-07	3.045	60.000
		4.825E-07	3.299	65.000
		4.367E-07	3.553	70.000
		3.975E-07	3.806	75.000
		3.637E-07	4.060	80.000
		1.303E-06	0.5	9.85

ANNUAL AVERAGE = 1.43E-10

K= 8 FIVEXQ(K)= 1.303E-06 FIVEPR(K)= 9.852

FUMIGATION X/Q AT THE BOUNDARY: 1.22E-04

EXPONENTIAL TERM AND FREQUENCIES

5.684E-01	5.200E-01	4.072E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
0.184	2.252	3.171	12.793	53.241	98.805	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 193 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE N SECTOR.

STABILITY CLASS	WINDSPEED METER/SEC	FREQUENCY PERCENT	DISTANCE METERS	TERRAIN METERS	HT METERS	EFF METERS	PLUME METERS	HT METERS	SIGMA-Y METERS	SIGMA-Z METERS	MEANDER-SY METERS	** CHI/Q VALUES (SEC/CUBIC METER)		
												MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	6.0	0.28	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	2.427E-06			
A	8.9	0.16	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	1.640E-06			
B	3.6	0.07	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	2.858E-06			
B	6.0	0.58	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.715E-06			
B	8.9	0.72	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.159E-06			
B	11.6	0.12	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	8.931E-07			
B	26.5	0.02	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	3.897E-07			
C	3.6	0.44	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06			
C	6.0	1.68	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06			
C	8.9	1.56	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07			
C	11.6	0.21	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	6.230E-07			
C	26.5	0.02	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	2.719E-07			
D	0.2	0.00	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05			
D	1.7	0.96	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06			
D	3.6	7.00	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06			
D	6.0	16.51	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07			
D	8.9	11.24	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07			
D	11.6	2.31	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07			
D	26.5	0.68	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07			
E	0.3	0.01	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06			
E	1.8	1.63	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06			
E	3.9	10.14	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07			
E	6.5	20.78	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07			
E	9.6	12.03	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07			
E	12.5	1.49	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07			
E	28.5	0.14	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08			
F	0.3	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06			
F	1.8	0.54	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07			
F	3.9	3.13	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07			
F	6.5	3.03	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07			
F	9.6	1.03	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07			
G	1.8	0.40	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08			
G	3.9	0.79	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08			

G	6.5	0.23	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	0.05	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 195 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1 96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

N SECTOR BOUNDARY DISTANCE = 300.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.858E-06	2.427E-06	2.224E-06	1.994E-06	1.715E-06	1.640E-06	1.262E-06
0.002	0.014	0.020	0.090	0.370	1.326	1.769	2.352	2.515	4.148
0.00022	0.00138	0.00200	0.00900	0.03699	0.13262	0.17694	0.23525	0.25158	0.41485
1.196E-06	1.159E-06	1.038E-06	8.931E-07	8.082E-07	6.875E-07	6.230E-07	6.226E-07	5.890E-07	4.207E-07
5.827	6.550	13.547	13.663	15.226	15.762	15.972	32.484	42.629	53.870
0.58280	0.65510	1.35486	1.36652	1.52280	1.57645	1.59744	3.24887	4.26352	5.38780
3.897E-07	3.534E-07	3.243E-07	3.208E-07	2.719E-07	2.388E-07	1.925E-07	1.841E-07	1.415E-07	1.301E-07
53.893	74.673	76.981	80.107	80.130	92.164	95.196	96.688	97.365	98.391
5.39013	7.46841	7.69933	8.01189	8.01422	9.21780	9.52103	9.67031	9.73795	9.84058
8.032E-08	6.449E-08	3.010E-08	1.806E-08	1.220E-08					
98.531	98.927	99.720	99.953	100.000					
9.85458	9.89423	9.97354	9.99686	10.00153					

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.132
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 4.260

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 7.465

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
9	1	-11.07050	-16.69575	-1.22412
9	2	-13.01641	-15.89735	-0.95849
9	3	-13.77855	-16.33691	-1.15733
9	4	-14.34482	-17.49364	-1.82936
9	5	-14.85564	NUMXQ(K)= 5	
		2.467E-06	0.100	1.000
		1.737E-06	0.300	3.000
		1.473E-06	0.500	5.000
		1.160E-06	1.000	10.000
		9.906E-07	1.500	15.000
		8.658E-07	2.000	20.000
		7.767E-07	2.500	25.000
		7.087E-07	3.000	30.000
		6.544E-07	3.501	35.000
		6.096E-07	4.001	40.000
		5.621E-07	4.501	45.000
		5.124E-07	5.001	50.000
		4.705E-07	5.501	55.000
		4.345E-07	6.001	60.000
		4.034E-07	6.501	65.000
		3.761E-07	7.001	70.000
		1.473E-06	0.5	5.00

ANNUAL AVERAGE = 4.19E-10

K= 9 FIVEXQ(K)= 1.473E-06 FIVEPR(K)= 4.999

FUMIGATION X/Q AT THE BOUNDARY: 1.22E-04

EXPONENTIAL TERM AND FREQUENCIES

5.684E-01	5.200E-01	4.072E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
0.443	4.361	5.877	13.603	52.296	98.531	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 197 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE NNE SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q	VALUES (SEC/CUBIC METER)
CLASS	METER/SEC	PERCENT	METERS	METERS			METERS		METERS	METERS	METERS	MEANDER	BLDG WAKE
AT 131.4 METERS													
CA=1292.SQ.METERS													
A	3.6	0.08	500.	0.			131.		100.2	123.6	0.0	0.000E+00	0.000E+00
A	6.0	0.28	500.	0.			131.		100.2	123.6	0.0	0.000E+00	0.000E+00
A	8.9	0.12	500.	0.			131.		100.2	123.6	0.0	0.000E+00	0.000E+00
B	3.6	0.16	900.	0.			131.		128.1	98.0	0.0	0.000E+00	0.000E+00
B	6.0	0.56	900.	0.			131.		128.1	98.0	0.0	0.000E+00	0.000E+00
B	8.9	0.36	900.	0.			131.		128.1	98.0	0.0	0.000E+00	0.000E+00
B	11.6	0.08	900.	0.			131.		128.1	98.0	0.0	0.000E+00	0.000E+00
C	3.6	0.20	2000.	0.			131.		200.0	114.9	0.0	0.000E+00	0.000E+00
C	6.0	1.47	2000.	0.			131.		200.0	114.9	0.0	0.000E+00	0.000E+00
C	8.9	0.95	2000.	0.			131.		200.0	114.9	0.0	0.000E+00	0.000E+00
D	0.2	0.00	4000.	0.			131.		263.4	78.0	0.0	0.000E+00	0.000E+00
D	1.7	0.91	4000.	0.			131.		263.4	78.0	0.0	0.000E+00	0.000E+00
D	3.6	7.60	4000.	0.			131.		263.4	78.0	0.0	0.000E+00	0.000E+00
D	6.0	16.91	4000.	0.			131.		263.4	78.0	0.0	0.000E+00	0.000E+00
D	8.9	6.60	4000.	0.			131.		263.4	78.0	0.0	0.000E+00	0.000E+00
D	11.6	0.64	4000.	0.			131.		263.4	78.0	0.0	0.000E+00	0.000E+00
D	26.5	0.36	4000.	0.			131.		263.4	78.0	0.0	0.000E+00	0.000E+00
E	0.3	0.02	9000.	0.			131.		389.6	74.2	0.0	0.000E+00	0.000E+00
E	1.8	2.23	9000.	0.			131.		389.6	74.2	0.0	0.000E+00	0.000E+00
E	3.9	12.73	9000.	0.			131.		389.6	74.2	0.0	0.000E+00	0.000E+00
E	6.5	22.95	9000.	0.			131.		389.6	74.2	0.0	0.000E+00	0.000E+00
E	9.6	9.07	9000.	0.			131.		389.6	74.2	0.0	0.000E+00	0.000E+00
E	12.5	0.76	9000.	0.			131.		389.6	74.2	0.0	0.000E+00	0.000E+00
E	28.5	0.16	9000.	0.			131.		389.6	74.2	0.0	0.000E+00	0.000E+00
F	0.3	0.01	90000.	0.			131.		1000.0	92.1	0.0	0.000E+00	0.000E+00
F	1.8	1.27	90000.	0.			131.		1000.0	92.1	0.0	0.000E+00	0.000E+00
F	3.9	5.61	90000.	0.			131.		1000.0	92.1	0.0	0.000E+00	0.000E+00
F	6.5	4.42	90000.	0.			131.		1000.0	92.1	0.0	0.000E+00	0.000E+00
F	9.6	0.91	90000.	0.			131.		1000.0	92.1	0.0	0.000E+00	0.000E+00
F	12.5	0.12	90000.	0.			131.		1000.0	92.1	0.0	0.000E+00	0.000E+00
G	1.8	0.36	90000.	0.			131.		1000.0	46.0	0.0	0.000E+00	0.000E+00
G	3.9	1.23	90000.	0.			131.		1000.0	46.0	0.0	0.000E+00	0.000E+00
G	6.5	0.84	90000.	0.			131.		1000.0	46.0	0.0	0.000E+00	0.000E+00

G	9.6	0.04	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08
---	-----	------	--------	----	------	--------	------	-----	-----------	-----------	-----------

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 199 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

NNE SECTOR BOUNDARY DISTANCE = 300.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED:

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	4.045E-06	2.858E-06	2.427E-06	2.224E-06	1.994E-06	1.715E-06	1.640E-06
0.002	0.018	0.033	0.112	0.271	0.550	1.465	1.664	2.221	2.340
0.00012	0.00105	0.00191	0.00658	0.01591	0.03224	0.08588	0.09755	0.13020	0.13720
1.262E-06	1.196E-06	1.159E-06	1.038E-06	8.931E-07	8.082E-07	6.875E-07	6.226E-07	5.890E-07	4.207E-07
4.568	6.039	6.397	13.995	14.075	15.030	16.303	33.209	45.939	52.542
0.26782	0.35412	0.37512	0.82063	0.82529	0.88127	0.95592	1.94724	2.69365	3.08085
3.534E-07	3.243E-07	3.208E-07	2.388E-07	1.925E-07	1.841E-07	1.415E-07	1.301E-07	1.003E-07	8.032E-08
75.495	76.132	81.741	90.811	95.226	95.982	96.340	97.255	97.375	97.534
4.42671	4.46403	4.79292	5.32473	5.58364	5.62796	5.64895	5.70260	5.70960	5.71893
6.449E-08	3.010E-08	1.806E-08	1.220E-08						
97.892	99.125	99.960	100.000						
5.73992	5.81223	5.86121	5.86355						

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.001
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 0.086

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4) = 0.820
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5) = 2.691
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(6) = 4.423

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
10	1	-11.07050	-16.86574	-1.22926
10	2	-11.63677	-16.88443	-1.23365
10	3	-13.01641	-16.26591	-1.03638
10	4	-13.77855	-16.65940	-1.20033
10	5	-14.34482	-18.72800	-2.27310
10	6	-14.85564	NUMXQ(K) = 6	
		2.548E-06	0.059	1.000
		1.776E-06	0.176	3.000
		1.500E-06	0.293	5.000
		1.176E-06	0.586	10.000
		1.006E-06	0.880	15.000
		8.839E-07	1.173	20.000
		7.964E-07	1.466	25.000
		7.297E-07	1.759	30.000
		6.764E-07	2.052	35.000
		6.325E-07	2.345	40.000
		5.954E-07	2.639	45.000
		5.416E-07	2.932	50.000
		4.920E-07	3.225	55.000
		4.501E-07	3.518	60.000
		4.142E-07	3.811	65.000
		3.831E-07	4.104	70.000
		3.559E-07	4.398	75.000
		1.246E-06	0.5	8.53

ANNUAL AVERAGE = 3.18E-10

K= 10 FIVEXQ(K)= 1.246E-06 FIVEPR(K)= 8.527

FUMIGATION X/Q AT THE BOUNDARY: 1.22E-04

EXPONENTIAL TERM AND FREQUENCIES

5.684E-01	5.200E-01	4.072E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
0.477	3.103	4.256	16.603	49.623	97.534	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 201 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE NE SECTOR.

STABILITY CLASS	WINDSPEED METER/SEC	FREQUENCY PERCENT	DISTANCE METERS	TERRAIN METERS	HT METERS	EFF METERS	PLUME METERS	HT METERS	SIGMA-Y METERS	SIGMA-Z METERS	MEANDER-SY METERS	** CHI/Q VALUES (SEC/CUBIC METER)	USED
												MEANDER	BLDG WAKE
												CA=1292.SQ.METERS	
A	3.6	0.09	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	4.045E-06		
A	6.0	0.23	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	2.427E-06		
A	8.9	0.09	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	1.640E-06		
B	3.6	0.14	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	2.858E-06		
B	6.0	0.61	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.715E-06		
B	8.9	0.28	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.159E-06		
B	11.6	0.05	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	8.931E-07		
C	3.6	0.33	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06		
C	6.0	1.41	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06		
C	8.9	0.99	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07		
C	11.6	0.19	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	6.230E-07		
C	26.5	0.05	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	2.719E-07		
D	0.2	0.00	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05		
D	1.7	1.50	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06		
D	3.6	7.28	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06		
D	6.0	13.48	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07		
D	8.9	5.92	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07		
D	11.6	0.75	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07		
D	26.5	0.14	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07		
E	0.3	0.02	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06		
E	1.8	2.77	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06		
E	3.9	13.19	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07		
E	6.5	16.62	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07		
E	9.6	10.14	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07		
E	12.5	0.85	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07		
E	28.5	0.09	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08		
F	0.3	0.02	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06		
F	1.8	1.50	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07		
F	3.9	7.32	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07		
F	6.5	7.37	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07		
F	9.6	1.83	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07		
G	1.8	0.28	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08		
G	3.9	1.69	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08		

Calculation No. PM-1055 Revision 0**Attachment J****Page 202 of 1411**

G	6.5	2.39	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	0.38	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 203 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

NE SECTOR BOUNDARY DISTANCE = 300.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	4.045E-06	2.858E-06	2.427E-06	2.224E-06	1.994E-06	1.715E-06	1.640E-06
0.003	0.023	0.040	0.134	0.275	0.510	2.012	2.341	2.951	3.045
0.00017	0.00115	0.00201	0.00667	0.01367	0.02534	0.09998	0.11630	0.14663	0.15129
1.262E-06	1.196E-06	1.159E-06	1.038E-06	8.931E-07	8.082E-07	6.875E-07	6.230E-07	6.226E-07	5.890E-07
5.815	7.224	7.506	14.783	14.830	15.816	17.319	17.506	30.981	44.175
0.28891	0.35889	0.37288	0.73442	0.73676	0.78574	0.86038	0.86971	1.53914	2.19458
4.207E-07	3.534E-07	3.243E-07	3.208E-07	2.719E-07	2.388E-07	1.925E-07	1.841E-07	1.415E-07	1.301E-07
50.091	66.711	67.463	74.787	74.834	84.976	92.347	93.192	93.333	95.164
2.48848	3.31419	3.35152	3.71539	3.71772	4.22155	4.58775	4.62974	4.63674	4.72770
8.032E-08	6.449E-08	3.010E-08	1.806E-08	1.220E-08					
95.258	95.540	97.230	99.624	100.000					
4.73237	4.74636	4.83034	4.94929	4.96795					

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(2)=	0.100
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(3)=	0.734

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 2.192
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 3.712

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
11	1	-11.07050	-16.88108	-1.25046
11	2	-13.01641	-16.63911	-1.17217
11	3	-13.77855	-17.03136	-1.33290
11	4	-14.34482	-19.65802	-2.63609
11	5	-14.95230	NUMXQ(K)= 5	
		2.862E-06	0.050	1.000
		1.931E-06	0.149	3.000
		1.599E-06	0.248	5.000
		1.220E-06	0.497	10.000
		1.030E-06	0.745	15.000
		8.947E-07	0.994	20.000
		7.990E-07	1.242	25.000
		7.266E-07	1.490	30.000
		6.693E-07	1.739	35.000
		6.223E-07	1.987	40.000
		5.771E-07	2.236	45.000
		5.130E-07	2.484	50.000
		4.604E-07	2.732	55.000
		4.164E-07	2.981	60.000
		3.792E-07	3.229	65.000
		3.474E-07	3.478	70.000
		1.217E-06	0.5	10.06

ANNUAL AVERAGE = 2.51E-10

K= 11 FIVEXQ(K)= 1.217E-06 FIVEPR(K)=10.065

FUMIGATION X/Q AT THE BOUNDARY: 1.22E-04

EXPONENTIAL TERM AND FREQUENCIES

5.684E-01	5.200E-01	4.072E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
0.423	3.381	4.460	22.507	51.573	95.258	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 205 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE ENE SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	6.0	0.33	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	2.427E-06			
A	8.9	0.14	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	1.640E-06			
A	11.6	0.09	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	1.264E-06			
A	26.5	0.09	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	5.516E-07			
B	3.6	0.05	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	2.858E-06			
B	6.0	0.38	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.715E-06			
B	8.9	0.89	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.159E-06			
B	11.6	0.09	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	8.931E-07			
B	26.5	0.05	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	3.897E-07			
C	3.6	0.14	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06			
C	6.0	1.22	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06			
C	8.9	1.46	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07			
C	11.6	0.19	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	6.230E-07			
C	26.5	0.05	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	2.719E-07			
D	0.2	0.00	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05			
D	1.7	0.71	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06			
D	3.6	6.02	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06			
D	6.0	9.93	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07			
D	8.9	8.94	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07			
D	11.6	1.03	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07			
D	26.5	0.28	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07			
E	0.3	0.02	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06			
E	1.8	2.54	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06			
E	3.9	8.80	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07			
E	6.5	13.97	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07			
E	9.6	12.75	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07			
E	12.5	1.41	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07			
E	28.5	0.05	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08			
F	0.3	0.02	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06			
F	1.8	1.55	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07			
F	3.9	5.50	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07			
F	6.5	8.33	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07			
F	9.6	5.13	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07			
F	12.5	0.85	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.003E-07			

G	1.8	0.85	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	1.60	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	3.29	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	1.22	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08
G	12.5	0.05	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	9.405E-09

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 207 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

ENE SECTOR BOUNDARY DISTANCE = 300.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.858E-06	2.427E-06	2.224E-06	1.994E-06	1.715E-06	1.640E-06	1.264E-06
0.002	0.020	0.038	0.085	0.414	1.120	1.261	1.637	1.778	1.872
0.00008	0.00098	0.00186	0.00420	0.02052	0.05551	0.06251	0.08117	0.08817	0.09283
1.262E-06	1.196E-06	1.159E-06	1.038E-06	8.931E-07	8.082E-07	6.875E-07	6.230E-07	6.226E-07	5.890E-07
4.412	5.635	6.529	12.551	12.645	14.103	15.655	15.843	25.769	34.566
0.21879	0.27943	0.32375	0.62232	0.62698	0.69929	0.77626	0.78559	1.27776	1.71394
5.516E-07	4.207E-07	3.897E-07	3.534E-07	3.243E-07	3.208E-07	2.719E-07	2.388E-07	1.925E-07	1.841E-07
34.660	43.598	43.645	57.616	58.651	64.155	64.202	76.950	85.276	86.687
1.71860	2.16178	2.16411	2.85687	2.90819	3.18110	3.18343	3.81554	4.22840	4.29837
1.415E-07	1.301E-07	1.003E-07	8.032E-08	6.449E-08	3.010E-08	1.806E-08	1.220E-08	9.405E-09	
86.970	92.097	92.944	92.991	93.838	95.437	98.730	99.953	100.000	
4.31237	4.56662	4.60860	4.61093	4.65292	4.73222	4.89550	4.95615	4.95848	

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (2)= 0.001
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (3)= 0.055

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 0.622
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 1.712
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(6)= 3.178

K	I	XQSAVE(K, I)	XQINT(K, I)	XQSLOP(K, I)
12	1	-11.07050	-16.19649	-1.06775
12	2	-11.63677	-17.47494	-1.36713
12	3	-13.01641	-16.28004	-1.00073
12	4	-13.77855	-17.47979	-1.48070
12	5	-14.34482	-19.25415	-2.31876
12	6	-14.95230	NUMXQ(K) = 6	
		2.323E-06	0.050	1.000
		1.662E-06	0.149	3.000
		1.416E-06	0.248	5.000
		1.124E-06	0.496	10.000
		9.441E-07	0.744	15.000
		8.070E-07	0.992	20.000
		7.118E-07	1.240	25.000
		6.405E-07	1.488	30.000
		5.822E-07	1.735	35.000
		5.130E-07	1.983	40.000
		4.579E-07	2.231	45.000
		4.128E-07	2.479	50.000
		3.754E-07	2.727	55.000
		3.437E-07	2.975	60.000
		1.120E-06	0.5	10.08

ANNUAL AVERAGE = 2.62E-10

K= 12 FIVEXQ(K)= 1.120E-06 FIVEPR(K)=10.084

FUMIGATION X/Q AT THE BOUNDARY: 1.22E-04

EXPONENTIAL TERM AND FREQUENCIES

5.684E-01	5.200E-01	4.072E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
0.659	3.716	5.175	26.549	53.458	92.991	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 209 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE E SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)			
CLASS	METER/SEC	PERCENT	METERS	METERS			METERS		METERS	METERS	METERS	MEANDER	BLDG	WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS			
A	3.6	0.03	500.	0.			131.		100.2	123.6	0.0	0.000E+00	0.000E+00		4.045E-06
A	6.0	0.24	500.	0.			131.		100.2	123.6	0.0	0.000E+00	0.000E+00		2.427E-06
A	8.9	0.63	500.	0.			131.		100.2	123.6	0.0	0.000E+00	0.000E+00		1.640E-06
A	11.6	0.42	500.	0.			131.		100.2	123.6	0.0	0.000E+00	0.000E+00		1.264E-06
A	26.5	0.06	500.	0.			131.		100.2	123.6	0.0	0.000E+00	0.000E+00		5.516E-07
B	3.6	0.12	900.	0.			131.		128.1	98.0	0.0	0.000E+00	0.000E+00		2.858E-06
B	6.0	0.63	900.	0.			131.		128.1	98.0	0.0	0.000E+00	0.000E+00		1.715E-06
B	8.9	0.81	900.	0.			131.		128.1	98.0	0.0	0.000E+00	0.000E+00		1.159E-06
B	11.6	0.36	900.	0.			131.		128.1	98.0	0.0	0.000E+00	0.000E+00		8.931E-07
B	26.5	0.18	900.	0.			131.		128.1	98.0	0.0	0.000E+00	0.000E+00		3.897E-07
C	3.6	0.15	2000.	0.			131.		200.0	114.9	0.0	0.000E+00	0.000E+00		1.994E-06
C	6.0	1.25	2000.	0.			131.		200.0	114.9	0.0	0.000E+00	0.000E+00		1.196E-06
C	8.9	1.67	2000.	0.			131.		200.0	114.9	0.0	0.000E+00	0.000E+00		8.082E-07
C	11.6	0.86	2000.	0.			131.		200.0	114.9	0.0	0.000E+00	0.000E+00		6.230E-07
C	26.5	0.39	2000.	0.			131.		200.0	114.9	0.0	0.000E+00	0.000E+00		2.719E-07
D	0.2	0.00	4000.	0.			131.		263.4	78.0	0.0	0.000E+00	0.000E+00		1.556E-05
D	1.7	0.78	4000.	0.			131.		263.4	78.0	0.0	0.000E+00	0.000E+00		2.224E-06
D	3.6	4.21	4000.	0.			131.		263.4	78.0	0.0	0.000E+00	0.000E+00		1.038E-06
D	6.0	8.98	4000.	0.			131.		263.4	78.0	0.0	0.000E+00	0.000E+00		6.226E-07
D	8.9	11.78	4000.	0.			131.		263.4	78.0	0.0	0.000E+00	0.000E+00		4.207E-07
D	11.6	6.71	4000.	0.			131.		263.4	78.0	0.0	0.000E+00	0.000E+00		3.243E-07
D	26.5	2.68	4000.	0.			131.		263.4	78.0	0.0	0.000E+00	0.000E+00		1.415E-07
E	0.3	0.01	9000.	0.			131.		389.6	74.2	0.0	0.000E+00	0.000E+00		8.835E-06
E	1.8	1.61	9000.	0.			131.		389.6	74.2	0.0	0.000E+00	0.000E+00		1.262E-06
E	3.9	5.16	9000.	0.			131.		389.6	74.2	0.0	0.000E+00	0.000E+00		5.890E-07
E	6.5	11.78	9000.	0.			131.		389.6	74.2	0.0	0.000E+00	0.000E+00		3.534E-07
E	9.6	15.99	9000.	0.			131.		389.6	74.2	0.0	0.000E+00	0.000E+00		2.388E-07
E	12.5	2.33	9000.	0.			131.		389.6	74.2	0.0	0.000E+00	0.000E+00		1.841E-07
E	28.5	0.27	9000.	0.			131.		389.6	74.2	0.0	0.000E+00	0.000E+00		8.032E-08
F	0.3	0.01	90000.	0.			131.		1000.0	92.1	0.0	0.000E+00	0.000E+00		4.813E-06
F	1.8	0.89	90000.	0.			131.		1000.0	92.1	0.0	0.000E+00	0.000E+00		6.875E-07
F	3.9	2.54	90000.	0.			131.		1000.0	92.1	0.0	0.000E+00	0.000E+00		3.208E-07
F	6.5	5.91	90000.	0.			131.		1000.0	92.1	0.0	0.000E+00	0.000E+00		1.925E-07
F	9.6	5.01	90000.	0.			131.		1000.0	92.1	0.0	0.000E+00	0.000E+00		1.301E-07

Calculation No. PM-1055 Revision 0

Attachment J

Page 210 of 1411

F	12.5	0.72	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.003E-07
G	1.8	0.39	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	1.19	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	2.06	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	1.16	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08
G	12.5	0.03	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	9.405E-09
G	28.5	0.03	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	4.104E-09

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 211 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

E SECTOR BOUNDARY DISTANCE = 300.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	4.045E-06	2.858E-06	2.427E-06	2.224E-06	1.994E-06	1.715E-06	1.640E-06
0.002	0.013	0.024	0.053	0.173	0.411	1.187	1.336	1.962	2.589
0.00014	0.00103	0.00184	0.00417	0.01350	0.03216	0.09281	0.10447	0.15346	0.20244
1.264E-06	1.262E-06	1.196E-06	1.159E-06	1.038E-06	8.931E-07	8.082E-07	6.875E-07	6.230E-07	6.226E-07
3.006	4.617	5.869	6.675	10.880	11.238	12.908	13.803	14.668	23.646
0.23509	0.36105	0.45902	0.52199	0.85088	0.87887	1.00949	1.07947	1.14711	1.84920
5.890E-07	5.516E-07	4.207E-07	3.897E-07	3.534E-07	3.243E-07	3.208E-07	2.719E-07	2.388E-07	1.925E-07
28.806	28.865	40.646	40.825	52.607	59.317	61.853	62.240	78.227	84.133
2.25273	2.25739	3.17874	3.19274	4.11408	4.63890	4.83717	4.86749	6.11772	6.57956
1.841E-07	1.415E-07	1.301E-07	1.003E-07	8.032E-08	6.449E-08	3.010E-08	1.806E-08	1.220E-08	9.405E-09
86.459	89.143	94.154	94.870	95.138	95.526	96.719	98.777	99.940	99.970
6.76150	6.97143	7.36329	7.41927	7.44026	7.47059	7.56389	7.72483	7.81580	7.81813
4.104E-09									
100.000									
7.82046									

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS

Calculation No. PM-1055 Revision 0

Attachment J

Page 212 of 1411

SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.093
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 0.850
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 2.250
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 4.834

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
13	1	-11.07050	-16.85765	-1.23409
13	2	-13.01641	-16.28464	-1.05000
13	3	-13.77855	-17.31495	-1.48167
13	4	-14.34482	-17.89132	-1.76920
13	5	-14.95230	NUMXQ(K)= 5	
		2.366E-06	0.078	1.000
		1.649E-06	0.235	3.000
		1.383E-06	0.391	5.000
		1.072E-06	0.782	10.000
		8.680E-07	1.173	15.000
		7.349E-07	1.564	20.000
		6.428E-07	1.955	25.000
		5.714E-07	2.346	30.000
		5.083E-07	2.737	35.000
		4.583E-07	3.128	40.000
		4.173E-07	3.519	45.000
		3.832E-07	3.910	50.000
		3.542E-07	4.301	55.000
		3.292E-07	4.692	60.000
		1.266E-06	0.5	6.39

ANNUAL AVERAGE = 7.69E-10

K= 13 FIVEXQ(K)= 1.266E-06 FIVEPR(K)= 6.393

FUMIGATION X/Q AT THE BOUNDARY: 1.22E-04

EXPONENTIAL TERM AND FREQUENCIES

5.684E-01	5.200E-01	4.072E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
1.372	5.697	7.785	22.857	57.994	95.138	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 213 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1 96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE ESE SECTOR.

STABILITY CLASS	WINDSPEED METER/SEC	FREQUENCY PERCENT	DISTANCE METERS	TERRAIN METERS	HT EFF METERS	PLUME HT METERS	SIGMA-Y METERS	SIGMA-Z METERS	MEANDER-SY METERS	** CHI/Q VALUES (SEC/CUBIC METER)		
										MEANDER	BLDG WAKE	USED
AT 131.4 METERS										CA=1292.SQ.METERS		
A	6.0	0.24	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	2.427E-06	
A	8.9	0.24	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	1.640E-06	
A	11.6	0.05	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	1.264E-06	
A	26.5	0.13	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	5.516E-07	
B	3.6	0.08	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	2.858E-06	
B	6.0	0.24	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.715E-06	
B	8.9	0.53	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.159E-06	
B	11.6	0.37	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	8.931E-07	
B	26.5	0.19	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	3.897E-07	
C	3.6	0.13	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06	
C	6.0	0.69	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06	
C	8.9	1.57	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07	
C	11.6	0.80	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	6.230E-07	
C	26.5	0.72	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	2.719E-07	
D	0.2	0.00	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05	
D	1.7	1.01	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06	
D	3.6	2.59	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06	
D	6.0	9.48	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07	
D	8.9	17.99	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07	
D	11.6	11.96	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07	
D	26.5	4.03	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07	
E	0.3	0.01	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06	
E	1.8	0.96	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06	
E	3.9	3.68	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07	
E	6.5	9.45	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07	
E	9.6	15.56	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07	
E	12.5	2.96	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07	
E	28.5	0.32	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08	
F	0.3	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06	
F	1.8	0.75	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07	
F	3.9	1.76	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07	
F	6.5	3.74	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07	
F	9.6	3.68	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07	
F	12.5	0.48	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.003E-07	

G	1.8	0.37	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	0.93	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	1.17	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	1.04	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08
G	12.5	0.05	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	9.405E-09

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 215 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

ESE SECTOR BOUNDARY DISTANCE = 300.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.858E-06	2.427E-06	2.224E-06	1.994E-06	1.715E-06	1.640E-06	1.264E-06
0.002	0.009	0.018	0.098	0.338	1.352	1.486	1.726	1.966	2.020
0.00020	0.00080	0.00155	0.00855	0.02954	0.11818	0.12984	0.15083	0.17183	0.17649
1.262E-06	1.196E-06	1.159E-06	1.038E-06	8.931E-07	8.082E-07	6.875E-07	6.230E-07	6.226E-07	5.890E-07
2.980	3.674	4.208	6.797	7.171	8.746	9.493	10.294	19.769	23.452
0.26046	0.32111	0.36776	0.59401	0.62667	0.76429	0.82960	0.89957	1.72762	2.04951
5.516E-07	4.207E-07	3.897E-07	3.534E-07	3.243E-07	3.208E-07	2.719E-07	2.388E-07	1.925E-07	1.841E-07
23.585	41.575	41.762	51.210	63.167	64.929	65.649	81.210	84.947	87.909
2.06117	3.63329	3.64962	4.47533	5.52030	5.67425	5.73723	7.09709	7.42365	7.68255
1.415E-07	1.301E-07	1.003E-07	8.032E-08	6.449E-08	3.010E-08	1.806E-08	1.220E-08	9.405E-09	
91.939	95.623	96.103	96.423	96.797	97.731	98.906	99.947	100.000	
8.03477	8.35665	8.39864	8.42663	8.45928	8.54092	8.64355	8.73452	8.73919	

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.118
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 0.593

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 2.047
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 5.670

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
14	1	-11.07050	-16.78363	-1.23898
14	2	-13.01641	-17.43472	-1.45311
14	3	-13.77855	-16.79696	-1.19964
14	4	-14.34482	-17.03831	-1.31771
14	5	-14.95230	NUMXQ(K)= 5	
		2.485E-06	0.087	1.000
		1.550E-06	0.262	3.000
		1.211E-06	0.437	5.000
		8.781E-07	0.874	10.000
		7.304E-07	1.311	15.000
		6.370E-07	1.748	20.000
		5.687E-07	2.185	25.000
		5.135E-07	2.622	30.000
		4.699E-07	3.059	35.000
		4.343E-07	3.496	40.000
		4.045E-07	3.933	45.000
		3.791E-07	4.370	50.000
		3.571E-07	4.807	55.000
		3.378E-07	5.244	60.000
		1.132E-06	0.5	5.72

ANNUAL AVERAGE = 4.30E-10

K= 14 FIVEXQ(K)= 1.132E-06 FIVEPR(K)= 5.721

FUMIGATION X/Q AT THE BOUNDARY: 1.22E-04

EXPONENTIAL TERM AND FREQUENCIES

5.684E-01	5.200E-01	4.072E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
0.667	4.591	6.005	16.423	63.481	96.423	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 217 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE SE SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	6.0	0.04	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	2.427E-06			
A	8.9	0.06	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	1.640E-06			
A	26.5	0.02	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	5.516E-07			
B	3.6	0.08	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	2.858E-06			
B	6.0	0.04	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.715E-06			
B	8.9	0.19	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.159E-06			
B	11.6	0.08	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	8.931E-07			
C	3.6	0.06	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06			
C	6.0	0.55	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06			
C	8.9	0.74	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07			
C	11.6	0.59	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	6.230E-07			
C	26.5	0.13	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	2.719E-07			
D	0.2	0.00	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05			
D	1.7	0.76	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06			
D	3.6	4.10	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06			
D	6.0	11.52	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07			
D	8.9	22.08	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07			
D	11.6	11.54	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07			
D	26.5	3.91	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07			
E	0.3	0.01	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06			
E	1.8	0.83	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06			
E	3.9	3.61	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07			
E	6.5	11.03	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07			
E	9.6	13.83	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07			
E	12.5	1.89	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07			
E	28.5	0.13	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08			
F	0.3	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06			
F	1.8	0.55	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07			
F	3.9	2.00	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07			
F	6.5	3.78	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07			
F	9.6	1.91	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07			
G	1.8	0.28	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08			
G	3.9	1.49	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08			

G	6.5	1.95	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	0.19	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 219 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

SE SECTOR BOUNDARY DISTANCE = 300.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.858E-06	2.427E-06	2.224E-06	1.994E-06	1.715E-06	1.640E-06	1.262E-06
0.002	0.008	0.014	0.099	0.141	0.906	0.970	1.013	1.076	1.905
0.00019	0.00084	0.00154	0.01087	0.01553	0.09950	0.10650	0.11117	0.11816	0.20913
1.196E-06	1.159E-06	1.038E-06	8.931E-07	8.082E-07	6.875E-07	6.230E-07	6.226E-07	5.890E-07	5.516E-07
2.457	2.649	6.749	6.834	7.578	8.130	8.725	20.241	23.853	23.874
0.26978	0.29077	0.74095	0.75028	0.83192	0.89256	0.95787	2.22210	2.61863	2.62096
4.207E-07	3.534E-07	3.243E-07	3.208E-07	2.719E-07	2.388E-07	1.925E-07	1.841E-07	1.415E-07	1.301E-07
45.949	56.976	68.513	70.510	70.637	84.469	88.251	90.142	94.051	95.963
5.04446	6.25504	7.52160	7.74085	7.75485	9.27332	9.68851	9.89611	10.32529	10.53522
8.032E-08	6.449E-08	3.010E-08	1.806E-08	1.220E-08					
96.091	96.367	97.854	99.809	100.000					
10.54921	10.57954	10.74281	10.95741	10.97840					

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.099

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 0.740

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 5.041
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 7.737

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
15	1	-11.07050	-16.94794	-1.27152
15	2	-13.01641	-16.61528	-1.16393
15	3	-13.77855	-16.54197	-1.13385
15	4	-14.68142	-16.72098	-1.24294
15	5	-14.95230	NUMXQ(K)= 5	
		2.149E-06	0.110	1.000
		1.438E-06	0.329	3.000
		1.175E-06	0.549	5.000
		8.797E-07	1.098	10.000
		7.352E-07	1.647	15.000
		6.432E-07	2.196	20.000
		5.774E-07	2.745	25.000
		5.270E-07	3.294	30.000
		4.868E-07	3.842	35.000
		4.536E-07	4.391	40.000
		4.255E-07	4.940	45.000
		3.996E-07	5.489	50.000
		3.766E-07	6.038	55.000
		3.564E-07	6.587	60.000
		3.385E-07	7.136	65.000
		3.224E-07	7.685	70.000
		1.220E-06	0.5	4.55

ANNUAL AVERAGE = 1.06E-10

K= 15 FIVEXQ(K)= 1.220E-06 FIVEPR(K)= 4.554

FUMIGATION X/Q AT THE BOUNDARY: 1.22E-04

EXPONENTIAL TERM AND FREQUENCIES

5.684E-01	5.200E-01	4.072E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
0.127	2.210	2.613	10.863	64.767	96.091	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 221 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE SSE SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	3.6	0.02	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	4.045E-06			
A	6.0	0.17	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	2.427E-06			
A	8.9	0.32	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	1.640E-06			
A	11.6	0.02	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	1.264E-06			
A	26.5	0.02	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	5.516E-07			
B	3.6	0.06	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	2.858E-06			
B	6.0	0.48	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.715E-06			
B	8.9	0.71	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.159E-06			
B	11.6	0.11	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	8.931E-07			
C	3.6	0.48	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06			
C	6.0	2.16	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06			
C	8.9	2.01	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07			
C	11.6	0.37	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	6.230E-07			
D	0.2	0.00	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05			
D	1.7	1.08	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06			
D	3.6	8.31	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06			
D	6.0	20.04	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07			
D	8.9	19.82	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07			
D	11.6	5.23	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07			
D	26.5	1.36	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07			
E	0.3	0.01	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06			
E	1.8	0.73	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06			
E	3.9	4.38	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07			
E	6.5	11.10	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07			
E	9.6	10.11	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07			
E	12.5	0.93	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07			
E	28.5	0.22	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08			
F	0.3	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06			
F	1.8	0.48	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07			
F	3.9	2.09	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07			
F	6.5	2.72	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07			
F	9.6	0.69	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07			
F	12.5	0.11	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.003E-07			

Calculation No. PM-1055 Revision 0**Attachment J****Page 222 of 1411**

G	1.8	0.41	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	1.27	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	1.84	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	0.11	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08
G	28.5	0.02	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	4.104E-09

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 223 of 1411

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1 96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

SSE SECTOR BOUNDARY DISTANCE = 300.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	4.045E-06	2.858E-06	2.427E-06	2.224E-06	1.994E-06	1.715E-06	1.640E-06
0.002	0.008	0.013	0.035	0.100	0.272	1.352	1.827	2.302	2.626
0.00026	0.00083	0.00142	0.00375	0.01075	0.02941	0.14604	0.19735	0.24867	0.28366
1.264E-06	1.262E-06	1.196E-06	1.159E-06	1.038E-06	8.931E-07	8.082E-07	6.875E-07	6.230E-07	6.226E-07
2.648	3.382	5.542	6.254	14.568	14.676	16.685	17.160	17.527	37.568
0.28599	0.36529	0.59855	0.67552	1.57354	1.58520	1.80213	1.85344	1.89310	4.05768
5.890E-07	5.516E-07	4.207E-07	3.534E-07	3.243E-07	3.208E-07	2.388E-07	1.925E-07	1.841E-07	1.415E-07
41.951	41.973	61.798	72.898	78.124	80.219	90.325	93.046	93.975	95.335
4.53118	4.53352	6.67477	7.87369	8.43816	8.66442	9.75604	10.04994	10.15024	10.29718
1.301E-07	1.003E-07	8.032E-08	6.449E-08	3.010E-08	1.806E-08	1.220E-08	4.104E-09		
96.026	96.134	96.350	96.761	98.035	99.870	99.978	100.000		
10.37183	10.38349	10.40681	10.45113	10.58875	10.78701	10.79868	10.80101		

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.197
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 4.528

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 6.671

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
16	1	-11.07050	-16.67065	-1.22977
16	2	-13.12558	-15.69990	-0.89302
16	3	-13.77855	-16.43273	-1.23363
16	4	-14.34482	-17.31614	-1.75559
16	5	-14.68142	NUMXQ(K)= 5	
		2.502E-06	0.108	1.000
		1.728E-06	0.324	3.000
		1.480E-06	0.540	5.000
		1.182E-06	1.080	10.000
		1.023E-06	1.620	15.000
		8.846E-07	2.160	20.000
		7.868E-07	2.700	25.000
		7.127E-07	3.240	30.000
		6.539E-07	3.780	35.000
		6.056E-07	4.320	40.000
		5.553E-07	4.860	45.000
		5.074E-07	5.401	50.000
		4.669E-07	5.941	55.000
		4.320E-07	6.481	60.000
		1.516E-06	0.5	4.63

ANNUAL AVERAGE = 5.11E-10

K= 16 FIVEXQ(K)= 1.516E-06 FIVEPR(K)= 4.629

FUMIGATION X/Q AT THE BOUNDARY: 1.22E-04

EXPONENTIAL TERM AND FREQUENCIES

5.684E-01	5.200E-01	4.072E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
0.561	5.572	6.932	13.028	68.876	96.350	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 225 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE ALL SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	1.7	0.01	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	8.668E-06			
A	3.6	0.51	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	4.045E-06			
A	6.0	0.53	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	2.427E-06			
A	8.9	0.28	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	1.640E-06			
A	11.6	0.06	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	1.264E-06			
A	26.5	0.03	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	5.516E-07			
B	1.7	0.05	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	6.124E-06			
B	3.6	0.47	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	2.858E-06			
B	6.0	0.54	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.715E-06			
B	8.9	0.44	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.159E-06			
B	11.6	0.12	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	8.931E-07			
B	26.5	0.03	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	3.897E-07			
C	1.7	0.08	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	4.272E-06			
C	3.6	0.77	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06			
C	6.0	1.33	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06			
C	8.9	1.04	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07			
C	11.6	0.30	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	6.230E-07			
C	26.5	0.13	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	2.719E-07			
D	0.2	0.00	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05			
D	1.7	2.07	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06			
D	3.6	9.39	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06			
D	6.0	15.72	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07			
D	8.9	12.23	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07			
D	11.6	4.24	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07			
D	26.5	1.39	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07			
E	0.3	0.01	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06			
E	1.8	1.97	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06			
E	3.9	8.90	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07			
E	6.5	13.85	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07			
E	9.6	9.53	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07			
E	12.5	1.29	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07			
E	28.5	0.23	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08			
F	0.3	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06			
F	1.8	1.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07			

Calculation No. PM-1055 Revision 0
Attachment J
Page 226 of 1411

F	3.9	3.14	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07
F	6.5	3.52	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07
F	9.6	1.55	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07
F	12.5	0.16	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.003E-07
F	28.5	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.375E-08
G	1.8	0.43	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	1.17	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	1.14	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	0.31	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08
G	12.5	0.01	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	9.405E-09
G	28.5	0.00	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	4.104E-09

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 227 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1 96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

DIRECTION-INDEPENDENT (S.R.P 2.3.4) MODEL.

MINIMUM BOUNDARY DISTANCE = 300.0 METERS.

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	8.668E-06	6.124E-06	4.813E-06	4.272E-06	4.045E-06	2.858E-06	2.427E-06	2.224E-06
0.005	0.019	0.026	0.072	0.084	0.161	0.674	1.145	1.677	3.744
0.00467	0.01866	0.02566	0.07231	0.08397	0.16094	0.67410	1.14527	1.67709	3.74370
1.994E-06	1.715E-06	1.640E-06	1.264E-06	1.262E-06	1.196E-06	1.159E-06	1.038E-06	8.931E-07	8.082E-07
4.509	5.052	5.330	5.388	7.354	8.684	9.125	18.516	18.637	19.680
4.50877	5.05225	5.32982	5.38813	7.35445	8.68399	9.12484	18.51558	18.63687	19.67951
6.875E-07	6.230E-07	6.226E-07	5.890E-07	5.516E-07	4.207E-07	3.897E-07	3.534E-07	3.243E-07	3.208E-07
20.689	20.993	36.712	45.608	45.636	57.865	57.900	71.746	75.987	79.129
20.68949	20.99272	36.71161	45.60785	45.63584	57.86527	57.90026	71.74612	75.98666	79.12857
2.719E-07	2.388E-07	1.925E-07	1.841E-07	1.415E-07	1.301E-07	1.003E-07	8.032E-08	6.449E-08	4.375E-08
79.254	88.781	92.298	93.593	94.980	96.534	96.695	96.923	97.357	97.369
79.25452	88.78055	92.29800	93.59254	94.98039	96.53386	96.69480	96.92339	97.35724	97.36890
3.010E-08	1.806E-08	1.220E-08	9.405E-09	4.104E-09					
98.542	99.678	99.986	99.995	100.000					
98.54216	99.67810	99.98599	99.99532	99.99998					

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS

Calculation No. PM-1055 Revision 0

Attachment J

Page 228 of 1411

SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

3.662E-06	1.000	1.000
2.436E-06	3.000	3.000
1.977E-06	5.000	5.000
1.446E-06	10.000	10.000
1.171E-06	15.000	15.000
9.978E-07	20.000	20.000
8.845E-07	25.000	25.000
7.938E-07	30.000	30.000
7.180E-07	35.000	35.000
6.529E-07	40.000	40.000
5.956E-07	45.000	45.000
5.478E-07	50.000	50.000
5.043E-07	55.000	55.000
4.636E-07	60.000	60.000
4.249E-07	65.000	65.000
3.877E-07	70.000	70.000
3.511E-07	75.000	75.000

1.977E-06	5.0	5.00
-----------	-----	------

K= 17 FIVEXQ(K)= 1.977E-06 FIVEPR(K)= 5.000

FUMIGATION X/Q AT THE BOUNDARY: 1.22E-04

EXPONENTIAL TERM AND FREQUENCIES

5.684E-01	5.200E-01	4.072E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
1.416	5.059	6.718	16.125	61.163	96.935	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 229 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

FIVE PERCENT OVERALL SITE LIMIT

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	8.668E-06	6.124E-06	4.813E-06	4.272E-06	4.045E-06	2.858E-06	2.427E-06	2.224E-06
0.005	0.019	0.026	0.072	0.084	0.161	0.674	1.145	1.677	3.744
0.00467	0.01866	0.02566	0.07231	0.08397	0.16094	0.67410	1.14527	1.67709	3.74370
1.994E-06	1.715E-06	1.640E-06	1.264E-06	1.262E-06	1.196E-06	1.159E-06	1.038E-06	8.931E-07	8.082E-07
4.509	5.052	5.330	5.388	7.354	8.684	9.125	18.516	18.637	19.680
4.50877	5.05225	5.32982	5.38813	7.35445	8.68399	9.12484	18.51558	18.63688	19.67952
6.875E-07	6.230E-07	6.226E-07	5.890E-07	5.516E-07	4.207E-07	3.897E-07	3.534E-07	3.243E-07	3.208E-07
20.689	20.993	36.712	45.608	45.636	57.865	57.900	71.746	75.987	79.129
20.68950	20.99273	36.71161	45.60786	45.63585	57.86527	57.90026	71.74612	75.98665	79.12857
2.719E-07	2.388E-07	1.925E-07	1.841E-07	1.415E-07	1.301E-07	1.003E-07	8.032E-08	6.449E-08	4.375E-08
79.255	88.781	92.298	93.593	94.980	96.534	96.695	96.923	97.357	97.369
79.25453	88.78056	92.29800	93.59256	94.98041	96.53387	96.69481	96.92340	97.35724	97.36890
3.010E-08	1.806E-08	1.220E-08	9.405E-09	4.104E-09					
98.542	99.678	99.986	99.995	100.000					
98.54216	99.67809	99.98598	99.99532	99.99998					

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS

Calculation No. PM-1055 Revision 0

SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

Attachment J

Page 230 of 1411

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
18	1	-11.07050	-14.64728	-0.91538
18	2	-13.01641	-14.54922	-0.86034
18	3	-13.77855	-14.42414	-0.72071
18	4	-14.34482	-14.41743	-0.65976
18	5	-14.95230	NUMXQ(K) = 5	
		3.662E-06	1.000	1.000
		2.436E-06	3.000	3.000
		1.977E-06	5.000	5.000
		1.446E-06	10.000	10.000
		1.171E-06	15.000	15.000
		9.978E-07	20.000	20.000
		8.845E-07	25.000	25.000
		7.938E-07	30.000	30.000
		7.180E-07	35.000	35.000
		6.529E-07	40.000	40.000
		5.956E-07	45.000	45.000
		5.478E-07	50.000	50.000
		5.043E-07	55.000	55.000
		4.636E-07	60.000	60.000
		4.249E-07	65.000	65.000
		3.877E-07	70.000	70.000
		3.511E-07	75.000	75.000
		1.977E-06	5.0	5.00

K= 18 FIVEXQ(K) = 1.977E-06 FIVEPR(K) = 5.000

K	HIGHPR	PR	GRNDVT(K)
1	-3.06052	0.11048	6.21119
2	-2.00327	2.25740	3.52599
3	-2.79824	0.25691	3.10868
4	-2.68650	0.36103	3.53145
5	-2.57624	0.49942	4.76778
6	-2.75266	0.29557	4.27759
7	-3.06855	0.10756	5.37148
8	-3.25087	0.05753	5.07527
9	-3.17144	0.07585	10.00153
10	-3.29988	0.04837	5.86355
11	-3.25284	0.05714	4.96796
12	-3.40963	0.03253	4.95848
13	-3.27701	0.05246	7.82046
14	-3.20434	0.06769	8.73919
15	-3.25156	0.05739	10.97840
16	-3.13645	0.08551	10.80101

K	HOURS(K)	TOTHR
1	9.67833	9.67833
2	197.74830	207.42660
3	22.50566	229.93230

Calculation No. PM-1055 Revision 0

Attachment J

Page 231 of 1411

4	31.62634	261.55860
5	43.74879	305.30740
6	25.89224	331.19960
7	9.42196	340.62160
8	5.03966	345.66130
9	6.64419	352.30550
10	4.23714	356.54260
11	5.00520	361.54780
12	2.84982	364.39760
13	4.59585	368.99350
14	5.92991	374.92340
15	5.02765	379.95100
16	7.49057	387.44160

K	FIVEXQ	SVANN	SLTIME	TIMINT	I	TIME	XQT
1	1.547E-06	3.325E-10	-1.0072	-12.6811	1	8.0	-14.77549
					2	16.0	-15.47361
					3	72.0	-16.98848
					4	624.0	-19.16346
2	1.537E-06	7.303E-10	-0.9126	-12.7531	1	8.0	-14.65071
					2	16.0	-15.28325
					3	72.0	-16.65582
					4	624.0	-18.62648
3	1.997E-06	1.701E-09	-0.8429	-12.5396	1	8.0	-14.29239
					2	16.0	-14.87667
					3	72.0	-16.14449
					4	624.0	-17.96477
4	2.335E-06	2.819E-09	-0.8014	-12.4122	1	8.0	-14.07854
					2	16.0	-14.63400
					3	72.0	-15.83930
					4	624.0	-17.56982
5	2.724E-06	5.624E-09	-0.7373	-12.3024	1	8.0	-13.83571
					2	16.0	-14.34680
					3	72.0	-15.45582
					4	624.0	-17.04811
6	2.196E-06	3.184E-09	-0.7795	-12.4885	1	8.0	-14.10940
					2	16.0	-14.64971
					3	72.0	-15.82215
					4	624.0	-17.50549
7	1.574E-06	8.996E-10	-0.8905	-12.7446	1	8.0	-14.59642
					2	16.0	-15.21369
					3	72.0	-16.55312
					4	624.0	-18.47622
8	1.303E-06	1.429E-10	-1.0873	-12.7974	1	8.0	-15.05850
					2	16.0	-15.81219

Calculation No. PM-1055 Revision 0

Attachment J

Page 232 of 1411

9	1.473E-06	4.186E-10	-0.9739	-12.7530	3	72.0	-17.44764
					4	624.0	-19.79574
					1	8.0	-14.77812
					2	16.0	-15.45316
10	1.246E-06	3.177E-10	-0.9868	-12.9120	3	72.0	-16.91793
					4	624.0	-19.02099
					1	8.0	-14.96388
					2	16.0	-15.64785
11	1.217E-06	2.509E-10	-1.0121	-12.9178	3	72.0	-17.13202
					4	624.0	-19.26291
					1	8.0	-15.02242
					2	16.0	-15.72397
12	1.120E-06	2.624E-10	-0.9969	-13.0109	3	72.0	-17.24627
					4	624.0	-19.43192
					1	8.0	-15.08395
					2	16.0	-15.77497
13	1.266E-06	7.685E-10	-0.8834	-12.9673	3	72.0	-17.27443
					4	624.0	-19.42728
					1	8.0	-14.80418
					2	16.0	-15.41648
14	1.132E-06	4.297E-10	-0.9394	-13.0400	3	72.0	-16.74510
					4	624.0	-18.65269
					1	8.0	-14.99341
					2	16.0	-15.64453
15	1.220E-06	1.065E-10	-1.1147	-12.8441	3	72.0	-17.05742
					4	624.0	-19.08597
					1	8.0	-15.16199
					2	16.0	-15.93462
16	1.516E-06	5.114E-10	-0.9534	-12.7384	3	72.0	-17.61118
					4	624.0	-20.01830
					1	8.0	-14.72100
					2	16.0	-15.38187
17	1.977E-06	5.624E-09	-0.6992	-12.6492	3	72.0	-16.81591
					4	624.0	-18.87483
					1	8.0	-14.10301
					2	16.0	-14.58763
18	1.977E-06	5.624E-09	-0.6992	-12.6492	3	72.0	-15.63921
					4	624.0	-17.14902
					1	8.0	-14.10301
					2	16.0	-14.58763
					3	72.0	-15.63921
					4	624.0	-17.14902
					1	8.0	-14.10301
					2	16.0	-14.58763

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

RUN DATE: 12/29/02

DELTA-T HEIGHTS: 10.1-96.3 meters

HOURS PER YEAR MAX
0-2 HR X/Q IS

DOWNWIND DISTANCE								EXCEEDED	DOWNWIND
SECTOR	(METERS)	0-2 HOURS	0-8 HOURS	8-24 HOURS	1-4 DAYS	4-30 DAYS	ANNUAL AVERAGE	IN SECTOR	SECTOR
S	300.	1.55E-06	3.83E-07	1.91E-07	4.19E-08	4.76E-09	3.32E-10	9.7	S
SSW	300.	1.54E-06	4.34E-07	2.30E-07	5.84E-08	8.14E-09	7.30E-10	197.7	SSW
SW	300.	2.00E-06	6.21E-07	3.46E-07	9.74E-08	1.58E-08	1.70E-09	22.5	SW
WSW	300.	2.33E-06	7.69E-07	4.41E-07	1.32E-07	2.34E-08	2.82E-09	31.6	WSW
W	300.	2.72E-06	9.80E-07	5.88E-07	1.94E-07	3.95E-08	5.62E-09	43.7	W
WNW	300.	2.20E-06	7.45E-07	4.34E-07	1.34E-07	2.50E-08	3.18E-09	25.9	WNW
NW	300.	1.57E-06	4.58E-07	2.47E-07	6.47E-08	9.46E-09	9.00E-10	9.4	NW
NNW	300.	1.30E-06	2.89E-07	1.36E-07	2.65E-08	2.53E-09	1.43E-10	5.0	NNW
N	300.	1.47E-06	3.82E-07	1.94E-07	4.49E-08	5.49E-09	4.19E-10	6.6	N
NNE	300.	1.25E-06	3.17E-07	1.60E-07	3.63E-08	4.31E-09	3.18E-10	4.2	NNE
NE	300.	1.22E-06	2.99E-07	1.48E-07	3.24E-08	3.64E-09	2.51E-10	5.0	NE
ENE	300.	1.12E-06	2.81E-07	1.41E-07	3.15E-08	3.65E-09	2.62E-10	2.8	ENE
E	300.	1.27E-06	3.72E-07	2.02E-07	5.34E-08	7.93E-09	7.69E-10	4.6	E
ESE	300.	1.13E-06	3.08E-07	1.61E-07	3.91E-08	5.14E-09	4.30E-10	5.9	ESE
SE	300.	1.22E-06	2.60E-07	1.20E-07	2.25E-08	2.02E-09	1.06E-10	5.0	SE
SSE	300.	1.52E-06	4.04E-07	2.09E-07	4.98E-08	6.35E-09	5.11E-10	7.5	SSE
MAX X/Q		2.72E-06				TOTAL HOURS AROUND SITE:		387.4	
SRP 2.3.4	300.	1.98E-06	7.50E-07	4.62E-07	1.61E-07	3.57E-08	5.62E-09		
SITE LIMIT		1.98E-06	7.50E-07	4.62E-07	1.61E-07	3.57E-08	5.62E-09		

0.5 PERCENT X/Q TO AN INDIVIDUAL IS LIMITING.

X/Q VALUES (SEC/CUBIC METER) FOR FUMIGATION AT THE BOUNDARY:

DOWNWIND DISTANCE FUMIGATION

SECTOR	(METERS)	X/Q
S	300.	1.22E-04
SSW	300.	1.22E-04
SW	300.	1.22E-04
WSW	300.	1.22E-04
W	300.	1.22E-04
WNW	300.	1.22E-04
NW	300.	1.22E-04
NNW	300.	1.22E-04
N	300.	1.22E-04
NNE	300.	1.22E-04
NE	300.	1.22E-04
ENE	300.	1.22E-04
E	300.	1.22E-04

Calculation No. PM-1055 Revision 0**Attachment J****Page 234 of 1411**

ESE	300.	1.22E-04
SE	300.	1.22E-04
SSE	300.	1.22E-04

****NOTE**:** VALUES ON THIS PAGE ARE APPROXIMATIONS ONLY.
CHECK THE REASONABLENESS OF THE ENVELOPES
COMPUTED FOR THE 0-2 HOUR VALUES. FOR ANY
FAULTY ENVELOPES, ADJUST THE ABOVE VALUES.

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 235 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE S SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS			METERS		METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	3.6	0.23	500.	0.			131.		100.2	123.6	0.0	0.000E+00	0.000E+00	4.045E-06
A	8.9	0.08	500.	0.			131.		100.2	123.6	0.0	0.000E+00	0.000E+00	1.640E-06
A	11.6	0.08	500.	0.			131.		100.2	123.6	0.0	0.000E+00	0.000E+00	1.264E-06
B	3.6	0.49	900.	0.			131.		128.1	98.0	0.0	0.000E+00	0.000E+00	2.858E-06
B	6.0	0.15	900.	0.			131.		128.1	98.0	0.0	0.000E+00	0.000E+00	1.715E-06
B	8.9	0.38	900.	0.			131.		128.1	98.0	0.0	0.000E+00	0.000E+00	1.159E-06
B	11.6	0.04	900.	0.			131.		128.1	98.0	0.0	0.000E+00	0.000E+00	8.931E-07
C	3.6	1.16	2000.	0.			131.		200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06
C	6.0	1.58	2000.	0.			131.		200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06
C	8.9	0.68	2000.	0.			131.		200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07
C	11.6	0.15	2000.	0.			131.		200.0	114.9	0.0	0.000E+00	0.000E+00	6.230E-07
C	26.5	0.04	2000.	0.			131.		200.0	114.9	0.0	0.000E+00	0.000E+00	2.719E-07
D	0.2	0.01	4000.	0.			131.		263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05
D	1.7	2.22	4000.	0.			131.		263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06
D	3.6	12.39	4000.	0.			131.		263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06
D	6.0	19.57	4000.	0.			131.		263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07
D	8.9	14.87	4000.	0.			131.		263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07
D	11.6	2.74	4000.	0.			131.		263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07
D	26.5	0.56	4000.	0.			131.		263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07
E	0.3	0.02	9000.	0.			131.		389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06
E	1.8	2.25	9000.	0.			131.		389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06
E	3.9	8.83	9000.	0.			131.		389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07
E	6.5	13.78	9000.	0.			131.		389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07
E	9.6	5.86	9000.	0.			131.		389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07
E	12.5	0.86	9000.	0.			131.		389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07
E	28.5	0.26	9000.	0.			131.		389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08
F	0.3	0.01	90000.	0.			131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06
F	1.8	0.98	90000.	0.			131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07
F	3.9	3.72	90000.	0.			131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07
F	6.5	3.04	90000.	0.			131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07
F	9.6	0.15	90000.	0.			131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07
F	12.5	0.04	90000.	0.			131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	1.003E-07
G	1.8	0.41	90000.	0.			131.		1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08

Calculation No. PM-1055 Revision 0**Attachment J****Page 236 of 1411**

G	3.9	1.77	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	0.60	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	0.04	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 237 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

S SECTOR BOUNDARY DISTANCE = 500.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	4.045E-06	2.858E-06	2.224E-06	1.994E-06	1.715E-06	1.640E-06	1.264E-06
0.005	0.021	0.032	0.258	0.746	2.961	4.126	4.276	4.351	4.426
0.00031	0.00131	0.00201	0.01600	0.04633	0.18394	0.25625	0.26558	0.27025	0.27491
1.262E-06	1.196E-06	1.159E-06	1.038E-06	8.931E-07	8.082E-07	6.875E-07	6.230E-07	6.226E-07	5.890E-07
6.679	8.257	8.632	21.025	21.062	21.738	22.715	22.865	42.430	51.255
0.41486	0.51283	0.53616	1.30589	1.30822	1.35021	1.41085	1.42018	2.63543	3.18357
4.207E-07	3.534E-07	3.243E-07	3.208E-07	2.719E-07	2.388E-07	1.925E-07	1.841E-07	1.415E-07	1.301E-07
66.127	79.909	82.650	86.368	86.406	92.264	95.306	96.170	96.733	96.883
4.10725	4.96329	5.13356	5.36448	5.36681	5.73069	5.91962	5.97327	6.00826	6.01759
1.003E-07	8.032E-08	6.449E-08	3.010E-08	1.806E-08	1.220E-08				
96.921	97.183	97.597	99.362	99.962	100.000				
6.01992	6.03625	6.06191	6.17153	6.20886	6.21119				

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2) = 0.256

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3) = 1.304

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4) = 3.181
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5) = 4.960

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
1	1	-11.07050	-16.47142	-1.19518
1	2	-13.12558	-16.30722	-1.13653
1	3	-13.77855	-17.18353	-1.53040
1	4	-14.34482	-18.94210	-2.47847
1	5	-14.85564	NUMXQ(K) = 5	
		3.332E-06	0.062	1.000
		2.250E-06	0.186	3.000
		1.857E-06	0.311	5.000
		1.419E-06	0.621	10.000
		1.201E-06	0.932	15.000
		1.061E-06	1.242	20.000
		9.350E-07	1.553	25.000
		8.354E-07	1.863	30.000
		7.578E-07	2.174	35.000
		6.951E-07	2.484	40.000
		6.430E-07	2.795	45.000
		5.990E-07	3.106	50.000
		5.446E-07	3.416	55.000
		4.938E-07	3.727	60.000
		4.506E-07	4.037	65.000
		4.134E-07	4.348	70.000
		3.812E-07	4.658	75.000
		1.547E-06	0.5	8.05

ANNUAL AVERAGE = 1.72E-09

K= 1 FIVEXQ(K) = 1.547E-06 FIVEPR(K) = 8.050

FUMIGATION X/Q AT THE BOUNDARY: 7.68E-05

EXPONENTIAL TERM AND FREQUENCIES

5.684E-01	5.200E-01	4.072E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
0.376	3.981	5.032	12.967	65.322	97.183	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 239 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE SSW SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	3.6	0.60	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	4.045E-06			
A	6.0	0.60	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	2.427E-06			
A	8.9	0.26	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	1.640E-06			
A	11.6	0.13	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	1.264E-06			
B	1.7	0.13	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	6.124E-06			
B	3.6	1.52	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	2.858E-06			
B	6.0	0.99	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.715E-06			
B	8.9	0.20	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.159E-06			
B	11.6	0.13	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	8.931E-07			
C	1.7	0.33	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	4.272E-06			
C	3.6	1.46	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06			
C	6.0	1.26	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06			
C	8.9	0.53	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07			
C	11.6	0.07	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	6.230E-07			
C	26.5	0.26	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	2.719E-07			
D	0.2	0.01	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05			
D	1.7	3.84	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06			
D	3.6	13.96	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06			
D	6.0	23.09	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07			
D	8.9	10.19	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07			
D	11.6	1.79	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07			
D	26.5	0.46	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07			
E	0.3	0.02	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06			
E	1.8	2.91	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06			
E	3.9	10.85	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07			
E	6.5	13.30	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07			
E	9.6	2.51	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07			
E	12.5	0.53	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07			
E	28.5	0.07	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08			
F	0.3	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06			
F	1.8	1.26	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07			
F	3.9	2.51	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07			
F	6.5	1.65	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07			
F	9.6	0.07	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07			

G	1.8	0.93	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	1.26	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	0.33	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 241 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

SSW SECTOR BOUNDARY DISTANCE = 500.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.
THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.
THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	6.124E-06	4.813E-06	4.272E-06	4.045E-06	2.858E-06	2.427E-06	2.224E-06	1.994E-06
0.009	0.029	0.162	0.176	0.507	1.102	2.624	3.219	7.056	8.511
0.00031	0.00104	0.00570	0.00621	0.01788	0.03887	0.09252	0.11351	0.24880	0.30011
1.715E-06	1.640E-06	1.264E-06	1.262E-06	1.196E-06	1.159E-06	1.038E-06	8.931E-07	8.082E-07	6.875E-07
9.504	9.768	9.901	12.811	14.068	14.267	28.225	28.357	28.886	30.143
0.33510	0.34443	0.34909	0.45172	0.49604	0.50304	0.99520	0.99987	1.01853	1.06285
6.230E-07	6.226E-07	5.890E-07	4.207E-07	3.534E-07	3.243E-07	3.208E-07	2.719E-07	2.388E-07	1.925E-07
30.209	53.296	64.145	74.333	87.630	89.416	91.929	92.194	94.708	96.362
1.06518	1.87923	2.26176	2.62097	3.08981	3.15279	3.24142	3.25075	3.33939	3.39770
1.841E-07	1.415E-07	1.301E-07	8.032E-08	6.449E-08	3.010E-08	1.806E-08			
96.891	97.354	97.420	97.486	98.412	99.669	100.000			
3.41636	3.43269	3.43502	3.43736	3.47001	3.51433	3.52599			

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (2)= 0.249
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (3)= 0.994

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 2.259
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 3.087

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
2	1	-11.07050	-16.20624	-1.13559
2	2	-13.01641	-17.47309	-1.58660
2	3	-13.77855	-17.82714	-1.73864
2	4	-14.34482	-21.93911	-3.79166
2	5	-14.85564	NUMXQ(K)= 5	
		4.290E-06	0.035	1.000
		3.004E-06	0.106	3.000
		2.517E-06	0.176	5.000
		1.855E-06	0.353	10.000
		1.490E-06	0.529	15.000
		1.268E-06	0.705	20.000
		1.115E-06	0.881	25.000
		9.970E-07	1.058	30.000
		9.001E-07	1.234	35.000
		8.223E-07	1.410	40.000
		7.583E-07	1.587	45.000
		7.044E-07	1.763	50.000
		6.583E-07	1.939	55.000
		6.184E-07	2.116	60.000
		5.767E-07	2.292	65.000
		5.119E-07	2.468	70.000
		4.575E-07	2.644	75.000
		4.114E-07	2.821	80.000
		3.719E-07	2.997	85.000
		1.537E-06	0.5	14.18

ANNUAL AVERAGE = 3.66E-09

K= 2 FIVEXQ(K)= 1.537E-06 FIVEPR(K)=14.180

FUMIGATION X/Q AT THE BOUNDARY: 7.68E-05

EXPONENTIAL TERM AND FREQUENCIES

5.684E-01	5.200E-01	4.072E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
1.588	5.491	8.467	13.973	67.300	97.486	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 243 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE SW SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	3.6	1.73	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	4.045E-06			
A	6.0	1.50	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	2.427E-06			
A	8.9	0.68	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	1.640E-06			
B	1.7	0.15	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	6.124E-06			
B	3.6	1.35	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	2.858E-06			
B	6.0	0.98	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.715E-06			
B	8.9	0.15	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.159E-06			
B	11.6	0.08	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	8.931E-07			
C	1.7	0.90	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	4.272E-06			
C	3.6	2.10	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06			
C	6.0	0.68	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06			
C	8.9	0.30	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07			
D	0.2	0.02	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05			
D	1.7	8.10	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06			
D	3.6	17.86	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06			
D	6.0	18.83	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07			
D	8.9	6.38	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07			
D	11.6	0.98	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07			
D	26.5	0.90	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07			
E	0.3	0.02	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06			
E	1.8	2.70	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06			
E	3.9	11.25	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07			
E	6.5	11.71	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07			
E	9.6	1.95	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07			
E	12.5	0.60	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07			
E	28.5	0.08	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08			
F	0.3	0.02	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06			
F	1.8	1.65	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07			
F	3.9	2.55	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07			
F	6.5	0.98	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07			
F	9.6	0.08	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07			
G	1.8	0.83	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08			
G	3.9	1.65	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08			

G	6.5	0.30	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
---	-----	------	--------	----	------	--------	------	-----	-----------	-----------	-----------

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 245 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

SW SECTOR BOUNDARY DISTANCE = 500.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	6.124E-06	4.813E-06	4.272E-06	4.045E-06	2.858E-06	2.427E-06	2.224E-06	1.994E-06
0.018	0.038	0.188	0.207	1.107	2.833	4.183	5.684	13.788	15.888
0.00057	0.00117	0.00583	0.00642	0.03441	0.08806	0.13005	0.17670	0.42861	0.49392
1.715E-06	1.640E-06	1.262E-06	1.196E-06	1.159E-06	1.038E-06	8.931E-07	8.082E-07	6.875E-07	6.226E-07
16.864	17.539	20.240	20.916	21.066	38.923	38.999	39.299	40.949	59.783
0.52424	0.54524	0.62921	0.65020	0.65487	1.21001	1.21234	1.22167	1.27298	1.85845
5.890E-07	4.207E-07	3.534E-07	3.243E-07	3.208E-07	2.388E-07	1.925E-07	1.841E-07	1.415E-07	1.301E-07
71.037	77.415	89.120	90.096	92.647	94.598	95.573	96.173	97.074	97.149
2.20833	2.40659	2.77047	2.80079	2.88009	2.94074	2.97106	2.98972	3.01771	3.02005
8.032E-08	6.449E-08	3.010E-08	1.806E-08						
97.224	98.049	99.700	100.000						
3.02238	3.04804	3.09935	3.10868						

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.088
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 0.428

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 1.209
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 2.206
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(6)= 2.768

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
3	1	-11.07050	-15.76030	-1.06849
3	2	-12.41800	-16.16917	-1.19920
3	3	-13.01641	-18.36423	-2.03412
3	4	-13.77855	-19.06598	-2.34541
3	5	-14.34482	-24.96016	-5.27354
3	6	-14.85564	NUMXQ(K) = 6	
		5.539E-06	0.031	1.000
		3.964E-06	0.093	3.000
		3.295E-06	0.155	5.000
		2.529E-06	0.311	10.000
		2.097E-06	0.466	15.000
		1.710E-06	0.622	20.000
		1.453E-06	0.777	25.000
		1.268E-06	0.933	30.000
		1.127E-06	1.088	35.000
		1.012E-06	1.243	40.000
		9.092E-07	1.399	45.000
		8.246E-07	1.554	50.000
		7.539E-07	1.710	55.000
		6.940E-07	1.865	60.000
		6.424E-07	2.021	65.000
		5.976E-07	2.176	70.000
		5.221E-07	2.332	75.000
		4.518E-07	2.487	80.000
		3.938E-07	2.642	85.000
		1.997E-06	0.5	16.08

ANNUAL AVERAGE = 6.99E-09

K= 3 FIVEXQ(K)= 1.997E-06 FIVEPR(K)=16.084

FUMIGATION X/Q AT THE BOUNDARY: 7.68E-05

EXPONENTIAL TERM AND FREQUENCIES

5.684E-01	5.200E-01	4.072E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
3.902	7.878	10.580	15.851	68.917	97.224	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 247 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE WSW SECTOR.

STABILITY CLASS	WINDSPEED METER/SEC	FREQUENCY PERCENT	DISTANCE METERS	TERRAIN METERS	HT EFF METERS	PLUME HT METERS	SIGMA-Y METERS	SIGMA-Z METERS	MEANDER-SY METERS	** CHI/Q VALUES (SEC/CUBIC METER)		
										MEANDER	BLDG WAKE	USED
AT 131.4 METERS										CA=1292.SQ.METERS		
A	3.6	2.58	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	4.045E-06	
A	6.0	1.92	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	2.427E-06	
A	8.9	1.19	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	1.640E-06	
A	11.6	0.07	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	1.264E-06	
B	1.7	0.59	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	6.124E-06	
B	3.6	1.65	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	2.858E-06	
B	6.0	0.99	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.715E-06	
B	8.9	0.07	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.159E-06	
C	1.7	0.99	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	4.272E-06	
C	3.6	2.44	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06	
C	6.0	1.12	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06	
C	8.9	0.20	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07	
D	0.2	0.02	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05	
D	1.7	7.86	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06	
D	3.6	22.19	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06	
D	6.0	18.36	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07	
D	8.9	4.43	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07	
D	11.6	0.73	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07	
D	26.5	0.13	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07	
E	0.3	0.03	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06	
E	1.8	4.03	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06	
E	3.9	14.46	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07	
E	6.5	6.67	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07	
E	9.6	0.73	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07	
E	12.5	0.26	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07	
E	28.5	0.07	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08	
F	0.3	0.02	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06	
F	1.8	1.72	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07	
F	3.9	1.92	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07	
F	6.5	0.53	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07	
G	1.8	0.66	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08	
G	3.9	1.25	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08	
G	6.5	0.13	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08	

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 248 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

WSW SECTOR BOUNDARY DISTANCE = 500.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED:

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	6.124E-06	4.813E-06	4.272E-06	4.045E-06	2.858E-06	2.427E-06	2.224E-06	1.994E-06
0.018	0.046	0.641	0.661	1.651	4.227	5.879	7.794	15.654	18.098
0.00063	0.00164	0.02263	0.02333	0.05832	0.14929	0.20760	0.27524	0.55282	0.63912
1.715E-06	1.640E-06	1.264E-06	1.262E-06	1.196E-06	1.159E-06	1.038E-06	8.082E-07	6.875E-07	6.226E-07
19.089	20.278	20.344	24.373	25.496	25.562	47.754	47.953	49.670	68.032
0.67411	0.71609	0.71842	0.86071	0.90036	0.90269	1.68642	1.69342	1.75407	2.40251
5.890E-07	4.207E-07	3.534E-07	3.243E-07	3.208E-07	2.388E-07	1.925E-07	1.841E-07	1.415E-07	8.032E-08
82.497	86.922	93.593	94.320	96.235	96.962	97.490	97.754	97.886	97.952
2.91333	3.06961	3.30519	3.33085	3.39849	3.42415	3.44281	3.45214	3.45681	3.45914
6.449E-08	3.010E-08	1.806E-08							
98.613	99.868	100.000							
3.48247	3.52678	3.53145							

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3) = 0.552
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4) = 1.685

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 2.911

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
4	1	-11.07050	-15.27913	-0.96350
4	2	-12.41800	-16.56801	-1.39754
4	3	-13.01641	-17.65467	-1.82513
4	4	-13.77855	-19.01550	-2.46590
4	5	-14.34482	NUMXQ(K)= 5	
		6.050E-06	0.035	1.000
		4.471E-06	0.106	3.000
		3.762E-06	0.177	5.000
		2.753E-06	0.353	10.000
		2.270E-06	0.530	15.000
		1.898E-06	0.706	20.000
		1.636E-06	0.883	25.000
		1.445E-06	1.059	30.000
		1.297E-06	1.236	35.000
		1.180E-06	1.413	40.000
		1.084E-06	1.589	45.000
		9.912E-07	1.766	50.000
		9.005E-07	1.942	55.000
		8.240E-07	2.119	60.000
		7.585E-07	2.295	65.000
		7.019E-07	2.472	70.000
		6.524E-07	2.649	75.000
		6.089E-07	2.825	80.000
		2.335E-06	0.5	14.16

ANNUAL AVERAGE = 1.17E-08

K= 4 FIVEXQ(K)= 2.335E-06 FIVEPR(K)=14.158

FUMIGATION X/Q AT THE BOUNDARY: 7.68E-05

EXPONENTIAL TERM AND FREQUENCIES

5.684E-01	5.200E-01	4.072E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
5.746	10.502	13.804	17.985	71.702	97.952	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 250 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE W SECTOR.

STABILITY CLASS	WINDSPEED METER/SEC	FREQUENCY PERCENT	DISTANCE METERS	TERRAIN METERS	HT EFF METERS	PLUME HT METERS	SIGMA-Y METERS	SIGMA-Z METERS	MEANDER-SY METERS	** CHI/Q VALUES (SEC/CUBIC METER)		
										MEANDER	BLDG WAKE	USED
AT 131.4 METERS										CA=1292.SQ.METERS		
A	1.7	0.15	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	8.668E-06	
A	3.6	4.26	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	4.045E-06	
A	6.0	2.25	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	2.427E-06	
A	8.9	0.34	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	1.640E-06	
B	1.7	0.24	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	6.124E-06	
B	3.6	2.74	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	2.858E-06	
B	6.0	0.59	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.715E-06	
B	8.9	0.05	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.159E-06	
C	1.7	0.05	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	4.272E-06	
C	3.6	2.45	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06	
C	6.0	0.68	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06	
C	8.9	0.15	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07	
C	11.6	0.05	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	6.230E-07	
D	0.2	0.01	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05	
D	1.7	5.63	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06	
D	3.6	21.28	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06	
D	6.0	16.19	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07	
D	8.9	6.46	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07	
D	11.6	1.57	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07	
D	26.5	0.39	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07	
E	0.3	0.02	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06	
E	1.8	2.94	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06	
E	3.9	13.85	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07	
E	6.5	7.88	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07	
E	9.6	2.84	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07	
E	12.5	0.59	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07	
E	28.5	0.98	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08	
F	0.3	0.02	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06	
F	1.8	1.52	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07	
F	3.9	1.66	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07	
F	6.5	0.64	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07	
F	28.5	0.20	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.375E-08	
G	1.8	0.64	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08	

G	3.9	0.64	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	0.10	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 252 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

W SECTOR BOUNDARY DISTANCE = 500.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	8.668E-06	6.124E-06	4.813E-06	4.272E-06	4.045E-06	2.858E-06	2.427E-06	2.224E-06
0.013	0.034	0.180	0.425	0.442	0.491	4.748	7.487	9.738	15.364
0.00061	0.00160	0.00860	0.02026	0.02110	0.02343	0.22636	0.35698	0.46428	0.73252
1.994E-06	1.715E-06	1.640E-06	1.262E-06	1.196E-06	1.159E-06	1.038E-06	8.082E-07	6.875E-07	6.230E-07
17.810	18.397	18.740	21.675	22.360	22.409	43.690	43.837	45.353	45.402
0.84914	0.87713	0.89346	1.03341	1.06607	1.06840	2.08305	2.09005	2.16235	2.16469
6.226E-07	5.890E-07	4.207E-07	3.534E-07	3.243E-07	3.208E-07	2.388E-07	1.925E-07	1.841E-07	1.415E-07
61.596	75.441	81.899	89.775	91.341	93.004	95.842	96.478	97.065	97.456
2.93675	3.59686	3.90475	4.28029	4.35493	4.43423	4.56952	4.59984	4.62783	4.64649
8.032E-08	6.449E-08	4.375E-08	3.010E-08	1.806E-08					
98.434	99.070	99.266	99.902	100.000					
4.69314	4.72347	4.73280	4.76312	4.76779					

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 0.732

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 2.081

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 3.594
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(6)= 4.431

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
5	1	-11.07050	-14.90832	-0.87711
5	2	-12.41800	-16.68802	-1.50394
5	3	-13.01641	-17.62189	-1.88646
5	4	-13.77855	-18.63791	-2.38516
5	5	-14.34482	-25.59808	-6.25210
5	6	-14.95230	NUMXQ(K)= 6	
		6.082E-06	0.048	1.000
		4.587E-06	0.143	3.000
		3.946E-06	0.238	5.000
		2.792E-06	0.477	10.000
		2.253E-06	0.715	15.000
		1.853E-06	0.954	20.000
		1.580E-06	1.192	25.000
		1.382E-06	1.430	30.000
		1.231E-06	1.669	35.000
		1.111E-06	1.907	40.000
		1.008E-06	2.146	45.000
		9.065E-07	2.384	50.000
		8.225E-07	2.622	55.000
		7.516E-07	2.861	60.000
		6.910E-07	3.099	65.000
		6.385E-07	3.337	70.000
		5.928E-07	3.576	75.000
		4.980E-07	3.814	80.000
		4.178E-07	4.053	85.000
		3.535E-07	4.291	90.000
		2.724E-06	0.5	10.49

ANNUAL AVERAGE = 2.23E-08

K= 5 FIVEXQ(K)= 2.724E-06 FIVEPR(K)=10.487

FUMIGATION X/Q AT THE BOUNDARY: 7.68E-05

EXPONENTIAL TERM AND FREQUENCIES

5.684E-01	5.200E-01	4.072E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
6.996	10.372	13.992	18.021	69.549	98.630	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 254 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE WNW SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	3.6	2.40	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	4.045E-06			
A	6.0	2.40	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	2.427E-06			
A	8.9	0.16	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	1.640E-06			
A	11.6	0.05	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	1.264E-06			
A	26.5	0.05	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	5.516E-07			
B	3.6	1.58	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	2.858E-06			
B	6.0	1.36	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.715E-06			
B	8.9	0.11	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.159E-06			
B	11.6	0.05	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	8.931E-07			
C	3.6	3.54	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06			
C	6.0	1.42	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06			
C	8.9	0.22	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07			
C	11.6	0.11	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	6.230E-07			
D	0.2	0.01	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05			
D	1.7	4.69	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06			
D	3.6	16.58	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06			
D	6.0	16.79	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07			
D	8.9	7.63	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07			
D	11.6	1.42	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07			
D	26.5	0.11	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07			
E	0.3	0.02	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06			
E	1.8	3.27	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06			
E	3.9	10.91	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07			
E	6.5	14.01	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07			
E	9.6	3.44	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07			
E	12.5	1.15	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07			
E	28.5	0.22	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08			
F	0.3	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06			
F	1.8	1.25	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07			
F	3.9	2.84	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07			
F	6.5	1.31	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07			
F	9.6	0.11	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07			
F	28.5	0.05	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.375E-08			

G	1.8	0.27	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	0.33	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	0.11	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 256 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

WNW SECTOR BOUNDARY DISTANCE = 500.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	4.045E-06	2.858E-06	2.427E-06	2.224E-06	1.994E-06	1.715E-06	1.640E-06
0.011	0.034	0.048	2.448	4.029	6.428	11.118	14.662	16.025	16.189
0.00045	0.00145	0.00207	0.10470	0.17234	0.27497	0.47557	0.62719	0.68550	0.69250
1.264E-06	1.262E-06	1.196E-06	1.159E-06	1.038E-06	8.931E-07	8.082E-07	6.875E-07	6.230E-07	6.226E-07
16.243	19.515	20.933	21.042	37.619	37.673	37.891	39.146	39.255	56.050
0.69483	0.83478	0.89543	0.90009	1.60918	1.61151	1.62084	1.67449	1.67915	2.39757
5.890E-07	5.516E-07	4.207E-07	3.534E-07	3.243E-07	3.208E-07	2.388E-07	1.925E-07	1.841E-07	1.415E-07
66.955	67.010	74.644	88.658	90.076	92.911	96.347	97.655	98.800	98.909
2.86408	2.86641	3.19296	3.79242	3.85307	3.97436	4.12131	4.17729	4.22627	4.23094
1.301E-07	8.032E-08	6.449E-08	4.375E-08	3.010E-08	1.806E-08				
99.018	99.237	99.509	99.564	99.891	100.000				
4.23560	4.24493	4.25659	4.25893	4.27292	4.27759				

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (3)= 0.626
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (4)= 1.607

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 2.861
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(6)= 3.789

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
6	1	-11.07050	-15.46296	-0.98963
6	2	-12.41800	-16.17186	-1.22003
6	3	-13.12558	-17.72706	-1.84289
6	4	-13.77855	-18.81308	-2.34976
6	5	-14.34482	-22.06134	-4.05796
6	6	-14.85564	NUMXQ(K)= 6	
		5.219E-06	0.043	1.000
		3.754E-06	0.128	3.000
		3.094E-06	0.214	5.000
		2.344E-06	0.428	10.000
		1.964E-06	0.642	15.000
		1.621E-06	0.856	20.000
		1.391E-06	1.069	25.000
		1.223E-06	1.283	30.000
		1.094E-06	1.497	35.000
		9.792E-07	1.711	40.000
		8.749E-07	1.925	45.000
		7.896E-07	2.139	50.000
		7.187E-07	2.353	55.000
		6.586E-07	2.567	60.000
		6.072E-07	2.780	65.000
		5.441E-07	2.994	70.000
		4.806E-07	3.208	75.000
		4.273E-07	3.422	80.000
		3.822E-07	3.636	85.000
		2.196E-06	0.5	11.69

ANNUAL AVERAGE = 1.27E-08

K= 6 FIVEXQ(K)= 2.196E-06 FIVEPR(K)=11.689

FUMIGATION X/Q AT THE BOUNDARY: 7.68E-05

EXPONENTIAL TERM AND FREQUENCIES

5.684E-01	5.200E-01	4.072E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
5.071	10.361	13.469	19.045	66.278	99.291	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 258 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE NW SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	3.6	0.17	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	4.045E-06			
A	6.0	0.87	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	2.427E-06			
A	8.9	0.56	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	1.640E-06			
B	1.7	0.09	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	6.124E-06			
B	3.6	0.43	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	2.858E-06			
B	6.0	1.17	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.715E-06			
B	8.9	0.35	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.159E-06			
B	11.6	0.04	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	8.931E-07			
C	3.6	0.61	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06			
C	6.0	2.69	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06			
C	8.9	0.48	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07			
D	0.2	0.00	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05			
D	1.7	1.95	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06			
D	3.6	14.72	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06			
D	6.0	20.76	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07			
D	8.9	6.99	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07			
D	11.6	0.61	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07			
D	26.5	0.30	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07			
E	0.3	0.02	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06			
E	1.8	2.65	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06			
E	3.9	14.98	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07			
E	6.5	15.16	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07			
E	9.6	4.26	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07			
E	12.5	0.69	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07			
E	28.5	0.52	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08			
F	0.3	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06			
F	1.8	1.22	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07			
F	3.9	3.52	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07			
F	6.5	2.08	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07			
F	9.6	0.30	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07			
G	1.8	0.17	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08			
G	3.9	1.22	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08			
G	6.5	0.35	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08			

G	9.6	0.04	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08
---	-----	------	--------	----	------	--------	------	-----	-----------	-----------	-----------

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 260 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

LOW POPULATION ZONE CALCULATIONS:

NW SECTOR BOUNDARY DISTANCE = 500.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	6.124E-06	4.813E-06	4.045E-06	2.858E-06	2.427E-06	2.224E-06	1.994E-06	1.715E-06
0.004	0.023	0.110	0.124	0.298	0.732	1.601	3.555	4.163	5.335
0.00024	0.00125	0.00591	0.00667	0.01600	0.03932	0.08597	0.19094	0.22359	0.28657
1.640E-06	1.262E-06	1.196E-06	1.159E-06	1.038E-06	8.931E-07	8.082E-07	6.875E-07	6.226E-07	5.890E-07
5.900	8.548	11.241	11.588	26.309	26.352	26.830	28.046	48.803	63.784
0.31689	0.45918	0.60380	0.62246	1.41318	1.41551	1.44117	1.50648	2.62143	3.42615
4.207E-07	3.534E-07	3.243E-07	3.208E-07	2.388E-07	1.925E-07	1.841E-07	1.415E-07	1.301E-07	8.032E-08
70.775	85.931	86.538	90.056	94.311	96.396	97.091	97.395	97.698	98.220
3.80169	4.61574	4.64839	4.83733	5.06591	5.17788	5.21520	5.23152	5.24785	5.27584
6.449E-08	3.010E-08	1.806E-08	1.220E-08						
98.393	99.609	99.957	100.000						
5.28517	5.35048	5.36914	5.37148						

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.191

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 1.412

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 3.423
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 4.612

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
7	1	-11.07050	-16.36184	-1.15635
7	2	-13.01641	-16.17063	-1.09026
7	3	-13.77855	-17.11755	-1.52184
7	4	-14.34482	-21.07552	-3.69421
7	5	-14.85564	NUMXQ(K)= 5	
		3.440E-06	0.054	1.000
		2.364E-06	0.161	3.000
		1.975E-06	0.269	5.000
		1.532E-06	0.537	10.000
		1.308E-06	0.806	15.000
		1.164E-06	1.074	20.000
		1.060E-06	1.343	25.000
		9.586E-07	1.611	30.000
		8.718E-07	1.880	35.000
		8.016E-07	2.149	40.000
		7.432E-07	2.417	45.000
		6.938E-07	2.686	50.000
		6.513E-07	2.954	55.000
		6.141E-07	3.223	60.000
		5.707E-07	3.491	65.000
		5.038E-07	3.760	70.000
		4.478E-07	4.029	75.000
		4.005E-07	4.297	80.000
		3.603E-07	4.566	85.000
		1.574E-06	0.5	9.31

ANNUAL AVERAGE = 4.14E-09

K= 7 FIVEXQ(K)= 1.574E-06 FIVEPR(K)= 9.308

FUMIGATION X/Q AT THE BOUNDARY: 7.68E-05

EXPONENTIAL TERM AND FREQUENCIES

5.684E-01	5.200E-01	4.072E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
1.607	5.385	7.469	14.605	59.944	98.220	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 262 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1 96.3 meters

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE NNW SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	3.6	0.09	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	4.045E-06			
A	6.0	0.09	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	2.427E-06			
B	3.6	0.14	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	2.858E-06			
B	6.0	0.37	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.715E-06			
B	8.9	0.37	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.159E-06			
B	11.6	0.05	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	8.931E-07			
C	3.6	0.55	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06			
C	6.0	1.01	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06			
C	8.9	0.46	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07			
C	11.6	0.05	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	6.230E-07			
D	0.2	0.00	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05			
D	1.7	1.61	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06			
D	3.6	11.17	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06			
D	6.0	21.42	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07			
D	8.9	5.42	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07			
D	11.6	0.51	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07			
D	26.5	0.32	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07			
E	0.3	0.02	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06			
E	1.8	2.71	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06			
E	3.9	14.29	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07			
E	6.5	20.36	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07			
E	9.6	7.58	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07			
E	12.5	0.51	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07			
E	28.5	0.09	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08			
F	0.3	0.02	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06			
F	1.8	1.47	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07			
F	3.9	4.14	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07			
F	6.5	3.63	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07			
F	9.6	0.37	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07			
G	1.8	0.41	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08			
G	3.9	0.46	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08			
G	6.5	0.28	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08			
G	9.6	0.05	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08			

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 263 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

NNW SECTOR BOUNDARY DISTANCE = 500.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	4.045E-06	2.858E-06	2.427E-06	2.224E-06	1.994E-06	1.715E-06	1.262E-06
0.004	0.023	0.040	0.132	0.270	0.362	1.970	2.522	2.889	5.601
0.00018	0.00116	0.00203	0.00669	0.01369	0.01835	0.09999	0.12798	0.14664	0.28426
1.196E-06	1.159E-06	1.038E-06	8.931E-07	8.082E-07	6.875E-07	6.230E-07	6.226E-07	5.890E-07	4.207E-07
6.612	6.980	18.148	18.194	18.653	20.124	20.170	41.587	55.880	61.303
0.33558	0.35424	0.92104	0.92337	0.94670	1.02134	1.02367	2.11063	2.83604	3.11128
3.534E-07	3.243E-07	3.208E-07	2.388E-07	1.925E-07	1.841E-07	1.415E-07	1.301E-07	8.032E-08	6.449E-08
81.662	82.168	86.304	93.887	97.518	98.024	98.345	98.713	98.805	99.219
4.14459	4.17025	4.38017	4.76504	4.94931	4.97497	4.99130	5.00996	5.01462	5.03561
3.010E-08	1.806E-08	1.220E-08							
99.678	99.954	100.000							
5.05894	5.07293	5.07527							

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2) = 0.100
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3) = 0.920

Calculation No. PM-1055 Revision 0

Attachment J

Page 264 of 1411

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 2.833
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 4.141

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
8	1	-11.07050	-16.92746	-1.26549
8	2	-13.01641	-16.22955	-1.03967
8	3	-13.77855	-16.73458	-1.25389
8	4	-14.34482	-20.02675	-2.98127
8	5	-14.85564	NUMXQ(K)= 5	
		2.850E-06	0.051	1.000
		1.948E-06	0.152	3.000
		1.648E-06	0.254	5.000
		1.296E-06	0.508	10.000
		1.116E-06	0.761	15.000
		9.915E-07	1.015	20.000
		8.911E-07	1.269	25.000
		8.147E-07	1.523	30.000
		7.539E-07	1.776	35.000
		7.039E-07	2.030	40.000
		6.618E-07	2.284	45.000
		6.256E-07	2.538	50.000
		5.941E-07	2.791	55.000
		5.366E-07	3.045	60.000
		4.825E-07	3.299	65.000
		4.367E-07	3.553	70.000
		3.975E-07	3.806	75.000
		3.637E-07	4.060	80.000
		1.303E-06	0.5	9.85

ANNUAL AVERAGE = 8.01E-10

K= 8 FIVEXQ(K)= 1.303E-06 FIVEPR(K)= 9.852

FUMIGATION X/Q AT THE BOUNDARY: 7.68E-05

EXPONENTIAL TERM AND FREQUENCIES

5.684E-01	5.200E-01	4.072E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
0.184	2.252	3.171	12.793	53.241	98.805	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 265 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE N SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q	VALUES (SEC/CUBIC METER)
CLASS	METER/SEC	PERCENT	METERS	METERS			METERS		METERS	METERS	METERS	MEANDER	BLDG WAKE
AT 131.4 METERS													
CA=1292.SQ.METERS													
A	6.0	0.28	500.	0.			131.		100.2	123.6	0.0	0.000E+00	0.000E+00
A	8.9	0.16	500.	0.			131.		100.2	123.6	0.0	0.000E+00	0.000E+00
B	3.6	0.07	900.	0.			131.		128.1	98.0	0.0	0.000E+00	0.000E+00
B	6.0	0.58	900.	0.			131.		128.1	98.0	0.0	0.000E+00	0.000E+00
B	8.9	0.72	900.	0.			131.		128.1	98.0	0.0	0.000E+00	0.000E+00
B	11.6	0.12	900.	0.			131.		128.1	98.0	0.0	0.000E+00	0.000E+00
B	26.5	0.02	900.	0.			131.		128.1	98.0	0.0	0.000E+00	0.000E+00
C	3.6	0.44	2000.	0.			131.		200.0	114.9	0.0	0.000E+00	0.000E+00
C	6.0	1.68	2000.	0.			131.		200.0	114.9	0.0	0.000E+00	0.000E+00
C	8.9	1.56	2000.	0.			131.		200.0	114.9	0.0	0.000E+00	0.000E+00
C	11.6	0.21	2000.	0.			131.		200.0	114.9	0.0	0.000E+00	0.000E+00
C	26.5	0.02	2000.	0.			131.		200.0	114.9	0.0	0.000E+00	0.000E+00
D	0.2	0.00	4000.	0.			131.		263.4	78.0	0.0	0.000E+00	0.000E+00
D	1.7	0.96	4000.	0.			131.		263.4	78.0	0.0	0.000E+00	0.000E+00
D	3.6	7.00	4000.	0.			131.		263.4	78.0	0.0	0.000E+00	0.000E+00
D	6.0	16.51	4000.	0.			131.		263.4	78.0	0.0	0.000E+00	0.000E+00
D	8.9	11.24	4000.	0.			131.		263.4	78.0	0.0	0.000E+00	0.000E+00
D	11.6	2.31	4000.	0.			131.		263.4	78.0	0.0	0.000E+00	0.000E+00
D	26.5	0.68	4000.	0.			131.		263.4	78.0	0.0	0.000E+00	0.000E+00
E	0.3	0.01	9000.	0.			131.		389.6	74.2	0.0	0.000E+00	0.000E+00
E	1.8	1.63	9000.	0.			131.		389.6	74.2	0.0	0.000E+00	0.000E+00
E	3.9	10.14	9000.	0.			131.		389.6	74.2	0.0	0.000E+00	0.000E+00
E	6.5	20.78	9000.	0.			131.		389.6	74.2	0.0	0.000E+00	0.000E+00
E	9.6	12.03	9000.	0.			131.		389.6	74.2	0.0	0.000E+00	0.000E+00
E	12.5	1.49	9000.	0.			131.		389.6	74.2	0.0	0.000E+00	0.000E+00
E	28.5	0.14	9000.	0.			131.		389.6	74.2	0.0	0.000E+00	0.000E+00
F	0.3	0.01	90000.	0.			131.		1000.0	92.1	0.0	0.000E+00	0.000E+00
F	1.8	0.54	90000.	0.			131.		1000.0	92.1	0.0	0.000E+00	0.000E+00
F	3.9	3.13	90000.	0.			131.		1000.0	92.1	0.0	0.000E+00	0.000E+00
F	6.5	3.03	90000.	0.			131.		1000.0	92.1	0.0	0.000E+00	0.000E+00
F	9.6	1.03	90000.	0.			131.		1000.0	92.1	0.0	0.000E+00	0.000E+00
G	1.8	0.40	90000.	0.			131.		1000.0	46.0	0.0	0.000E+00	0.000E+00
G	3.9	0.79	90000.	0.			131.		1000.0	46.0	0.0	0.000E+00	0.000E+00

Calculation No. PM-1055 Revision 0**Attachment J****Page 266 of 1411**

G	6.5	0.23	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	0.05	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 267 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

N SECTOR BOUNDARY DISTANCE = 500.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.858E-06	2.427E-06	2.224E-06	1.994E-06	1.715E-06	1.640E-06	1.262E-06
0.002	0.014	0.020	0.090	0.370	1.326	1.769	2.352	2.515	4.148
0.00022	0.00138	0.00200	0.00900	0.03699	0.13262	0.17694	0.23525	0.25158	0.41485
1.196E-06	1.159E-06	1.038E-06	8.931E-07	8.082E-07	6.875E-07	6.230E-07	6.226E-07	5.890E-07	4.207E-07
5.827	6.550	13.547	13.663	15.226	15.762	15.972	32.484	42.629	53.870
0.58280	0.65510	1.35486	1.36652	1.52280	1.57645	1.59744	3.24887	4.26352	5.38780
3.897E-07	3.534E-07	3.243E-07	3.208E-07	2.719E-07	2.388E-07	1.925E-07	1.841E-07	1.415E-07	1.301E-07
53.893	74.673	76.981	80.107	80.130	92.164	95.196	96.688	97.365	98.391
5.39013	7.46841	7.69933	8.01189	8.01422	9.21780	9.52103	9.67031	9.73795	9.84058
8.032E-08	6.449E-08	3.010E-08	1.806E-08	1.220E-08					
98.531	98.927	99.720	99.953	100.000					
9.85458	9.89423	9.97354	9.99686	10.00153					

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(2) =	0.132
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(4) =	4.260

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 7.465

K	I	XQSAVE(K, I)	XQINT(K, I)	XQSLOP(K, I)
9	1	-11.07050	-16.69575	-1.22412
9	2	-13.01641	-15.89735	-0.95849
9	3	-13.77855	-16.33691	-1.15733
9	4	-14.34482	-17.49364	-1.82936
9	5	-14.85564	NUMXQ(K)= 5	
		2.467E-06	0.100	1.000
		1.737E-06	0.300	3.000
		1.473E-06	0.500	5.000
		1.160E-06	1.000	10.000
		9.906E-07	1.500	15.000
		8.658E-07	2.000	20.000
		7.767E-07	2.500	25.000
		7.087E-07	3.000	30.000
		6.544E-07	3.501	35.000
		6.096E-07	4.001	40.000
		5.621E-07	4.501	45.000
		5.124E-07	5.001	50.000
		4.705E-07	5.501	55.000
		4.345E-07	6.001	60.000
		4.034E-07	6.501	65.000
		3.761E-07	7.001	70.000
		1.473E-06	0.5	5.00

ANNUAL AVERAGE = 2.30E-09

K= 9 FIVEXQ(K)= 1.473E-06 FIVEPR(K)= 4.999

FUMIGATION X/Q AT THE BOUNDARY: 7.68E-05

EXPONENTIAL TERM AND FREQUENCIES

5.684E-01	5.200E-01	4.072E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
0.443	4.361	5.877	13.603	52.296	98.531	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 269 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE NNE SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	3.6	0.08	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	4.045E-06			
A	6.0	0.28	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	2.427E-06			
A	8.9	0.12	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	1.640E-06			
B	3.6	0.16	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	2.858E-06			
B	6.0	0.56	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.715E-06			
B	8.9	0.36	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.159E-06			
B	11.6	0.08	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	8.931E-07			
C	3.6	0.20	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06			
C	6.0	1.47	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06			
C	8.9	0.95	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07			
D	0.2	0.00	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05			
D	1.7	0.91	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06			
D	3.6	7.60	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06			
D	6.0	16.91	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07			
D	8.9	6.60	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07			
D	11.6	0.64	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07			
D	26.5	0.36	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07			
E	0.3	0.02	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06			
E	1.8	2.23	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06			
E	3.9	12.73	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07			
E	6.5	22.95	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07			
E	9.6	9.07	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07			
E	12.5	0.76	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07			
E	28.5	0.16	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08			
F	0.3	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06			
F	1.8	1.27	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07			
F	3.9	5.61	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07			
F	6.5	4.42	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07			
F	9.6	0.91	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07			
F	12.5	0.12	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.003E-07			
G	1.8	0.36	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08			
G	3.9	1.23	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08			
G	6.5	0.84	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08			

G	9.6	0.04	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08
---	-----	------	--------	----	------	--------	------	-----	-----------	-----------	-----------

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 271 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1 96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

NNE SECTOR BOUNDARY DISTANCE = 500.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	4.045E-06	2.858E-06	2.427E-06	2.224E-06	1.994E-06	1.715E-06	1.640E-06
0.002	0.018	0.033	0.112	0.271	0.550	1.465	1.664	2.221	2.340
0.00012	0.00105	0.00191	0.00658	0.01591	0.03224	0.08588	0.09755	0.13020	0.13720
1.262E-06	1.196E-06	1.159E-06	1.038E-06	8.931E-07	8.082E-07	6.875E-07	6.226E-07	5.890E-07	4.207E-07
4.568	6.039	6.397	13.995	14.075	15.030	16.303	33.209	45.939	52.542
0.26782	0.35412	0.37512	0.82063	0.82529	0.88127	0.95592	1.94724	2.69365	3.08085
3.534E-07	3.243E-07	3.208E-07	2.388E-07	1.925E-07	1.841E-07	1.415E-07	1.301E-07	1.003E-07	8.032E-08
75.495	76.132	81.741	90.811	95.226	95.982	96.340	97.255	97.375	97.534
4.42671	4.46403	4.79292	5.32473	5.58364	5.62796	5.64895	5.70260	5.70960	5.71893
6.449E-08	3.010E-08	1.806E-08	1.220E-08						
97.892	99.125	99.960	100.000						
5.73992	5.81223	5.86121	5.86355						

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(2)=	0.001
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(3)=	0.086

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (4) = 0.820
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (5) = 2.691
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (6) = 4.423

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
10	1	-11.07050	-16.86574	-1.22926
10	2	-11.63677	-16.88443	-1.23365
10	3	-13.01641	-16.26591	-1.03638
10	4	-13.77855	-16.65940	-1.20033
10	5	-14.34482	-18.72800	-2.27310
10	6	-14.85564	NUMXQ(K) = 6	
		2.548E-06	0.059	1.000
		1.776E-06	0.176	3.000
		1.500E-06	0.293	5.000
		1.176E-06	0.586	10.000
		1.006E-06	0.880	15.000
		8.839E-07	1.173	20.000
		7.964E-07	1.466	25.000
		7.297E-07	1.759	30.000
		6.764E-07	2.052	35.000
		6.325E-07	2.345	40.000
		5.954E-07	2.639	45.000
		5.416E-07	2.932	50.000
		4.920E-07	3.225	55.000
		4.501E-07	3.518	60.000
		4.142E-07	3.811	65.000
		3.831E-07	4.104	70.000
		3.559E-07	4.398	75.000
		1.246E-06	0.5	8.53

ANNUAL AVERAGE = 1.56E-09

K= 10 FIVEXQ(K)= 1.246E-06 FIVEPR(K)= 8.527

FUMIGATION X/Q AT THE BOUNDARY: 7.68E-05

EXPONENTIAL TERM AND FREQUENCIES

5.684E-01	5.200E-01	4.072E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
0.477	3.103	4.256	16.603	49.623	97.534	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 273 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE NE SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER BLDG WAKE USED
AT 131.4 METERS												
CA=1292.SQ.METERS												
A	3.6	0.09	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	4.045E-06	
A	6.0	0.23	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	2.427E-06	
A	8.9	0.09	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	1.640E-06	
B	3.6	0.14	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	2.858E-06	
B	6.0	0.61	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.715E-06	
B	8.9	0.28	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.159E-06	
B	11.6	0.05	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	8.931E-07	
C	3.6	0.33	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06	
C	6.0	1.41	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06	
C	8.9	0.99	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07	
C	11.6	0.19	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	6.230E-07	
C	26.5	0.05	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	2.719E-07	
D	0.2	0.00	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05	
D	1.7	1.50	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06	
D	3.6	7.28	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06	
D	6.0	13.48	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07	
D	8.9	5.92	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07	
D	11.6	0.75	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07	
D	26.5	0.14	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07	
E	0.3	0.02	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06	
E	1.8	2.77	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06	
E	3.9	13.19	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07	
E	6.5	16.62	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07	
E	9.6	10.14	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07	
E	12.5	0.85	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07	
E	28.5	0.09	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08	
F	0.3	0.02	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06	
F	1.8	1.50	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07	
F	3.9	7.32	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07	
F	6.5	7.37	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07	
F	9.6	1.83	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07	
G	1.8	0.28	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08	
G	3.9	1.69	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08	

G	6.5	2.39	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	0.38	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 275 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

NE SECTOR BOUNDARY DISTANCE = 500.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	4.045E-06	2.858E-06	2.427E-06	2.224E-06	1.994E-06	1.715E-06	1.640E-06
0.003	0.023	0.040	0.134	0.275	0.510	2.012	2.341	2.951	3.045
0.00017	0.00115	0.00201	0.00667	0.01367	0.02534	0.09998	0.11630	0.14663	0.15129
1.262E-06	1.196E-06	1.159E-06	1.038E-06	8.931E-07	8.082E-07	6.875E-07	6.230E-07	6.226E-07	5.890E-07
5.815	7.224	7.506	14.783	14.830	15.816	17.319	17.506	30.981	44.175
0.28891	0.35889	0.37288	0.73442	0.73676	0.78574	0.86038	0.86971	1.53914	2.19458
4.207E-07	3.534E-07	3.243E-07	3.208E-07	2.719E-07	2.388E-07	1.925E-07	1.841E-07	1.415E-07	1.301E-07
50.091	66.711	67.463	74.787	74.834	84.976	92.347	93.192	93.333	95.164
2.48848	3.31419	3.35152	3.71539	3.71772	4.22155	4.58775	4.62974	4.63674	4.72770
8.032E-08	6.449E-08	3.010E-08	1.806E-08	1.220E-08					
95.258	95.540	97.230	99.624	100.000					
4.73237	4.74636	4.83034	4.94929	4.96795					

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.100
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 0.734

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4) = 2.192
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5) = 3.712

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
11	1	-11.07050	-16.88108	-1.25046
11	2	-13.01641	-16.63911	-1.17217
11	3	-13.77855	-17.03136	-1.33290
11	4	-14.34482	-19.65802	-2.63609
11	5	-14.95230	NUMXQ(K) = 5	
		2.862E-06	0.050	1.000
		1.931E-06	0.149	3.000
		1.599E-06	0.248	5.000
		1.220E-06	0.497	10.000
		1.030E-06	0.745	15.000
		8.947E-07	0.994	20.000
		7.990E-07	1.242	25.000
		7.266E-07	1.490	30.000
		6.693E-07	1.739	35.000
		6.223E-07	1.987	40.000
		5.771E-07	2.236	45.000
		5.130E-07	2.484	50.000
		4.604E-07	2.732	55.000
		4.164E-07	2.981	60.000
		3.792E-07	3.229	65.000
		3.474E-07	3.478	70.000
		1.217E-06	0.5	10.06

ANNUAL AVERAGE = 1.24E-09

K= 11 FIVEXQ(K) = 1.217E-06 FIVEPR(K)=10.065

FUMIGATION X/Q AT THE BOUNDARY: 7.68E-05

EXPONENTIAL TERM AND FREQUENCIES

5.684E-01	5.200E-01	4.072E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
0.423	3.381	4.460	22.507	51.573	95.258	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 277 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE ENE SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	6.0	0.33	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	2.427E-06			
A	8.9	0.14	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	1.640E-06			
A	11.6	0.09	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	1.264E-06			
A	26.5	0.09	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	5.516E-07			
B	3.6	0.05	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	2.858E-06			
B	6.0	0.38	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.715E-06			
B	8.9	0.89	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.159E-06			
B	11.6	0.09	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	8.931E-07			
B	26.5	0.05	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	3.897E-07			
C	3.6	0.14	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06			
C	6.0	1.22	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06			
C	8.9	1.46	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07			
C	11.6	0.19	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	6.230E-07			
C	26.5	0.05	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	2.719E-07			
D	0.2	0.00	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05			
D	1.7	0.71	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06			
D	3.6	6.02	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06			
D	6.0	9.93	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07			
D	8.9	8.94	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07			
D	11.6	1.03	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07			
D	26.5	0.28	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07			
E	0.3	0.02	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06			
E	1.8	2.54	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06			
E	3.9	8.80	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07			
E	6.5	13.97	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07			
E	9.6	12.75	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07			
E	12.5	1.41	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07			
E	28.5	0.05	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08			
F	0.3	0.02	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06			
F	1.8	1.55	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07			
F	3.9	5.50	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07			
F	6.5	8.33	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07			
F	9.6	5.13	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07			
F	12.5	0.85	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.003E-07			

G	1.8	0.85	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	1.60	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	3.29	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	1.22	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08
G	12.5	0.05	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	9.405E-09

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 279 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

ENE SECTOR BOUNDARY DISTANCE = 500.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.
THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.
THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.858E-06	2.427E-06	2.224E-06	1.994E-06	1.715E-06	1.640E-06	1.264E-06
0.002	0.020	0.038	0.085	0.414	1.120	1.261	1.637	1.778	1.872
0.00008	0.00098	0.00186	0.00420	0.02052	0.05551	0.06251	0.08117	0.08817	0.09283
1.262E-06	1.196E-06	1.159E-06	1.038E-06	8.931E-07	8.082E-07	6.875E-07	6.230E-07	6.226E-07	5.890E-07
4.412	5.635	6.529	12.551	12.645	14.103	15.655	15.843	25.769	34.566
0.21879	0.27943	0.32375	0.62232	0.62698	0.69929	0.77626	0.78559	1.27776	1.71394
5.516E-07	4.207E-07	3.897E-07	3.534E-07	3.243E-07	3.208E-07	2.719E-07	2.388E-07	1.925E-07	1.841E-07
34.660	43.598	43.645	57.616	58.651	64.155	64.202	76.950	85.276	86.687
1.71860	2.16178	2.16411	2.85687	2.90819	3.18110	3.18343	3.81554	4.22840	4.29837
1.415E-07	1.301E-07	1.003E-07	8.032E-08	6.449E-08	3.010E-08	1.806E-08	1.220E-08	9.405E-09	
86.970	92.097	92.944	92.991	93.838	95.437	98.730	99.953	100.000	
4.31237	4.56662	4.60860	4.61093	4.65292	4.73222	4.89550	4.95615	4.95848	

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.001

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 0.055

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 0.622
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 1.712
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(6)= 3.178

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
12	1	-11.07050	-16.19649	-1.06775
12	2	-11.63677	-17.47494	-1.36713
12	3	-13.01641	-16.28004	-1.00073
12	4	-13.77855	-17.47979	-1.48070
12	5	-14.34482	-19.25415	-2.31876
12	6	-14.95230	NUMXQ(K) = 6	
		2.323E-06	0.050	1.000
		1.662E-06	0.149	3.000
		1.416E-06	0.248	5.000
		1.124E-06	0.496	10.000
		9.441E-07	0.744	15.000
		8.070E-07	0.992	20.000
		7.118E-07	1.240	25.000
		6.405E-07	1.488	30.000
		5.822E-07	1.735	35.000
		5.130E-07	1.983	40.000
		4.579E-07	2.231	45.000
		4.128E-07	2.479	50.000
		3.754E-07	2.727	55.000
		3.437E-07	2.975	60.000
		1.120E-06	0.5	10.08

ANNUAL AVERAGE = 1.29E-09

K= 12 FIVEXQ(K)= 1.120E-06 FIVEPR(K)=10.084

FUMIGATION X/Q AT THE BOUNDARY: 7.68E-05

EXPONENTIAL TERM AND FREQUENCIES

5.684E-01	5.200E-01	4.072E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
0.659	3.716	5.175	26.549	53.458	92.991	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 281 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE E SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	3.6	0.03	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	4.045E-06			
A	6.0	0.24	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	2.427E-06			
A	8.9	0.63	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	1.640E-06			
A	11.6	0.42	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	1.264E-06			
A	26.5	0.06	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	5.516E-07			
B	3.6	0.12	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	2.858E-06			
B	6.0	0.63	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.715E-06			
B	8.9	0.81	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.159E-06			
B	11.6	0.36	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	8.931E-07			
B	26.5	0.18	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	3.897E-07			
C	3.6	0.15	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06			
C	6.0	1.25	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06			
C	8.9	1.67	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07			
C	11.6	0.86	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	6.230E-07			
C	26.5	0.39	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	2.719E-07			
D	0.2	0.00	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05			
D	1.7	0.78	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06			
D	3.6	4.21	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06			
D	6.0	8.98	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07			
D	8.9	11.78	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07			
D	11.6	6.71	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07			
D	26.5	2.68	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07			
E	0.3	0.01	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06			
E	1.8	1.61	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06			
E	3.9	5.16	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07			
E	6.5	11.78	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07			
E	9.6	15.99	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07			
E	12.5	2.33	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07			
E	28.5	0.27	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08			
F	0.3	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06			
F	1.8	0.89	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07			
F	3.9	2.54	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07			
F	6.5	5.91	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07			
F	9.6	5.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07			

Calculation No. PM-1055 Revision 0**Attachment J****Page 282 of 1411**

F	12.5	0.72	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.003E-07
G	1.8	0.39	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	1.19	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	2.06	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	1.16	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08
G	12.5	0.03	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	9.405E-09
G	28.5	0.03	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	4.104E-09

Calculation No. PM-1055 Revision 0**Attachment J****Page 283 of 1411**

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

E SECTOR BOUNDARY DISTANCE = 500.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.
 THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.
 THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	4.045E-06	2.858E-06	2.427E-06	2.224E-06	1.994E-06	1.715E-06	1.640E-06
0.002	0.013	0.024	0.053	0.173	0.411	1.187	1.336	1.962	2.589
0.00014	0.00103	0.00184	0.00417	0.01350	0.03216	0.09281	0.10447	0.15346	0.20244
1.264E-06	1.262E-06	1.196E-06	1.159E-06	1.038E-06	8.931E-07	8.082E-07	6.875E-07	6.230E-07	6.226E-07
3.006	4.617	5.869	6.675	10.880	11.238	12.908	13.803	14.668	23.646
0.23509	0.36105	0.45902	0.52199	0.85088	0.87887	1.00949	1.07947	1.14711	1.84920
5.890E-07	5.516E-07	4.207E-07	3.897E-07	3.534E-07	3.243E-07	3.208E-07	2.719E-07	2.388E-07	1.925E-07
28.806	28.865	40.646	40.825	52.607	59.317	61.853	62.240	78.227	84.133
2.25273	2.25739	3.17874	3.19274	4.11408	4.63890	4.83717	4.86749	6.11772	6.57956
1.841E-07	1.415E-07	1.301E-07	1.003E-07	8.032E-08	6.449E-08	3.010E-08	1.806E-08	1.220E-08	9.405E-09
86.459	89.143	94.154	94.870	95.138	95.526	96.719	98.777	99.940	99.970
6.76150	6.97143	7.36329	7.41927	7.44026	7.47059	7.56389	7.72483	7.81580	7.81813
4.104E-09									
100.000									
7.82046									

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
 THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
 ORDERED X/Q-FREQUENCY VALUES, AND AS
 PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS

Calculation No. PM-1055 Revision 0

Attachment J

Page 284 of 1411

SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.093
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 0.850
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 2.250
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 4.834

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
13	1	-11.07050	-16.85765	-1.23409
13	2	-13.01641	-16.28464	-1.05000
13	3	-13.77855	-17.31495	-1.48167
13	4	-14.34482	-17.89132	-1.76920
13	5	-14.95230	NUMXQ(K)= 5	
		2.366E-06	0.078	1.000
		1.649E-06	0.235	3.000
		1.383E-06	0.391	5.000
		1.072E-06	0.782	10.000
		8.680E-07	1.173	15.000
		7.349E-07	1.564	20.000
		6.428E-07	1.955	25.000
		5.714E-07	2.346	30.000
		5.083E-07	2.737	35.000
		4.583E-07	3.128	40.000
		4.173E-07	3.519	45.000
		3.832E-07	3.910	50.000
		3.542E-07	4.301	55.000
		3.292E-07	4.692	60.000
		1.266E-06	0.5	6.39

ANNUAL AVERAGE = 3.55E-09

K= 13 FIVEXQ(K)= 1.266E-06 FIVEPR(K)= 6.393

FUMIGATION X/Q AT THE BOUNDARY: 7.68E-05

EXPONENTIAL TERM AND FREQUENCIES

5.684E-01	5.200E-01	4.072E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
1.372	5.697	7.785	22.857	57.994	95.138	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 285 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE ESE SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	6.0	0.24	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	2.427E-06			
A	8.9	0.24	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	1.640E-06			
A	11.6	0.05	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	1.264E-06			
A	26.5	0.13	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	5.516E-07			
B	3.6	0.08	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	2.858E-06			
B	6.0	0.24	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.715E-06			
B	8.9	0.53	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.159E-06			
B	11.6	0.37	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	8.931E-07			
B	26.5	0.19	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	3.897E-07			
C	3.6	0.13	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06			
C	6.0	0.69	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06			
C	8.9	1.57	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07			
C	11.6	0.80	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	6.230E-07			
C	26.5	0.72	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	2.719E-07			
D	0.2	0.00	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05			
D	1.7	1.01	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06			
D	3.6	2.59	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06			
D	6.0	9.48	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07			
D	8.9	17.99	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07			
D	11.6	11.96	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07			
D	26.5	4.03	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07			
E	0.3	0.01	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06			
E	1.8	0.96	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06			
E	3.9	3.68	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07			
E	6.5	9.45	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07			
E	9.6	15.56	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07			
E	12.5	2.96	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07			
E	28.5	0.32	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08			
F	0.3	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06			
F	1.8	0.75	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07			
F	3.9	1.76	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07			
F	6.5	3.74	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07			
F	9.6	3.68	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07			
F	12.5	0.48	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.003E-07			

G	1.8	0.37	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	0.93	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	1.17	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	1.04	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08
G	12.5	0.05	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	9.405E-09

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 287 of 1411

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

ESE SECTOR BOUNDARY DISTANCE = 500.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.858E-06	2.427E-06	2.224E-06	1.994E-06	1.715E-06	1.640E-06	1.264E-06
0.002	0.009	0.018	0.098	0.338	1.352	1.486	1.726	1.966	2.020
0.00020	0.00080	0.00155	0.00855	0.02954	0.11818	0.12984	0.15083	0.17183	0.17649
1.262E-06	1.196E-06	1.159E-06	1.038E-06	8.931E-07	8.082E-07	6.875E-07	6.230E-07	6.226E-07	5.890E-07
2.980	3.674	4.208	6.797	7.171	8.746	9.493	10.294	19.769	23.452
0.26046	0.32111	0.36776	0.59401	0.62667	0.76429	0.82960	0.89957	1.72762	2.04951
5.516E-07	4.207E-07	3.897E-07	3.534E-07	3.243E-07	3.208E-07	2.719E-07	2.388E-07	1.925E-07	1.841E-07
23.585	41.575	41.762	51.210	63.167	64.929	65.649	81.210	84.947	87.909
2.06117	3.63329	3.64962	4.47533	5.52030	5.67425	5.73723	7.09709	7.42365	7.68255
1.415E-07	1.301E-07	1.003E-07	8.032E-08	6.449E-08	3.010E-08	1.806E-08	1.220E-08	9.405E-09	
91.939	95.623	96.103	96.423	96.797	97.731	98.906	99.947	100.000	
8.03477	8.35665	8.39864	8.42663	8.45928	8.54092	8.64355	8.73452	8.73919	

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.118
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 0.593

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 2.047
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 5.670

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
14	1	-11.07050	-16.78363	-1.23898
14	2	-13.01641	-17.43472	-1.45311
14	3	-13.77855	-16.79696	-1.19964
14	4	-14.34482	-17.03831	-1.31771
14	5	-14.95230	NUMXQ(K)= 5	
		2.485E-06	0.087	1.000
		1.550E-06	0.262	3.000
		1.211E-06	0.437	5.000
		8.781E-07	0.874	10.000
		7.304E-07	1.311	15.000
		6.370E-07	1.748	20.000
		5.687E-07	2.185	25.000
		5.135E-07	2.622	30.000
		4.699E-07	3.059	35.000
		4.343E-07	3.496	40.000
		4.045E-07	3.933	45.000
		3.791E-07	4.370	50.000
		3.571E-07	4.807	55.000
		3.378E-07	5.244	60.000
		1.132E-06	0.5	5.72

ANNUAL AVERAGE = 2.08E-09

K= 14 FIVEXQ(K)= 1.132E-06 FIVEPR(K)= 5.721

FUMIGATION X/Q AT THE BOUNDARY: 7.68E-05

EXPONENTIAL TERM AND FREQUENCIES

5.684E-01	5.200E-01	4.072E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
0.667	4.591	6.005	16.423	63.481	96.423	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 289 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE SE SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	**	CHI/Q	VALUES (SEC/CUBIC METER)	
CLASS	METER/SEC	PERCENT	METERS	METERS			METERS		METERS	METERS	METERS		MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS			
A	6.0	0.04	500.	0.			131.		100.2	123.6	0.0		0.000E+00	0.000E+00	2.427E-06
A	8.9	0.06	500.	0.			131.		100.2	123.6	0.0		0.000E+00	0.000E+00	1.640E-06
A	26.5	0.02	500.	0.			131.		100.2	123.6	0.0		0.000E+00	0.000E+00	5.516E-07
B	3.6	0.08	900.	0.			131.		128.1	98.0	0.0		0.000E+00	0.000E+00	2.858E-06
B	6.0	0.04	900.	0.			131.		128.1	98.0	0.0		0.000E+00	0.000E+00	1.715E-06
B	8.9	0.19	900.	0.			131.		128.1	98.0	0.0		0.000E+00	0.000E+00	1.159E-06
B	11.6	0.08	900.	0.			131.		128.1	98.0	0.0		0.000E+00	0.000E+00	8.931E-07
C	3.6	0.06	2000.	0.			131.		200.0	114.9	0.0		0.000E+00	0.000E+00	1.994E-06
C	6.0	0.55	2000.	0.			131.		200.0	114.9	0.0		0.000E+00	0.000E+00	1.196E-06
C	8.9	0.74	2000.	0.			131.		200.0	114.9	0.0		0.000E+00	0.000E+00	8.082E-07
C	11.6	0.59	2000.	0.			131.		200.0	114.9	0.0		0.000E+00	0.000E+00	6.230E-07
C	26.5	0.13	2000.	0.			131.		200.0	114.9	0.0		0.000E+00	0.000E+00	2.719E-07
D	0.2	0.00	4000.	0.			131.		263.4	78.0	0.0		0.000E+00	0.000E+00	1.556E-05
D	1.7	0.76	4000.	0.			131.		263.4	78.0	0.0		0.000E+00	0.000E+00	2.224E-06
D	3.6	4.10	4000.	0.			131.		263.4	78.0	0.0		0.000E+00	0.000E+00	1.038E-06
D	6.0	11.52	4000.	0.			131.		263.4	78.0	0.0		0.000E+00	0.000E+00	6.226E-07
D	8.9	22.08	4000.	0.			131.		263.4	78.0	0.0		0.000E+00	0.000E+00	4.207E-07
D	11.6	11.54	4000.	0.			131.		263.4	78.0	0.0		0.000E+00	0.000E+00	3.243E-07
D	26.5	3.91	4000.	0.			131.		263.4	78.0	0.0		0.000E+00	0.000E+00	1.415E-07
E	0.3	0.01	9000.	0.			131.		389.6	74.2	0.0		0.000E+00	0.000E+00	8.835E-06
E	1.8	0.83	9000.	0.			131.		389.6	74.2	0.0		0.000E+00	0.000E+00	1.262E-06
E	3.9	3.61	9000.	0.			131.		389.6	74.2	0.0		0.000E+00	0.000E+00	5.890E-07
E	6.5	11.03	9000.	0.			131.		389.6	74.2	0.0		0.000E+00	0.000E+00	3.534E-07
E	9.6	13.83	9000.	0.			131.		389.6	74.2	0.0		0.000E+00	0.000E+00	2.388E-07
E	12.5	1.89	9000.	0.			131.		389.6	74.2	0.0		0.000E+00	0.000E+00	1.841E-07
E	28.5	0.13	9000.	0.			131.		389.6	74.2	0.0		0.000E+00	0.000E+00	8.032E-08
F	0.3	0.01	90000.	0.			131.		1000.0	92.1	0.0		0.000E+00	0.000E+00	4.813E-06
F	1.8	0.55	90000.	0.			131.		1000.0	92.1	0.0		0.000E+00	0.000E+00	6.875E-07
F	3.9	2.00	90000.	0.			131.		1000.0	92.1	0.0		0.000E+00	0.000E+00	3.208E-07
F	6.5	3.78	90000.	0.			131.		1000.0	92.1	0.0		0.000E+00	0.000E+00	1.925E-07
F	9.6	1.91	90000.	0.			131.		1000.0	92.1	0.0		0.000E+00	0.000E+00	1.301E-07
G	1.8	0.28	90000.	0.			131.		1000.0	46.0	0.0		0.000E+00	0.000E+00	6.449E-08
G	3.9	1.49	90000.	0.			131.		1000.0	46.0	0.0		0.000E+00	0.000E+00	3.010E-08

Calculation No. PM-1055 Revision 0**Attachment J****Page 290 of 1411**

G	6.5	1.95	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	0.19	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 291 of 1411

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

SE SECTOR BOUNDARY DISTANCE = 500.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.858E-06	2.427E-06	2.224E-06	1.994E-06	1.715E-06	1.640E-06	1.262E-06
0.002	0.008	0.014	0.099	0.141	0.906	0.970	1.013	1.076	1.905
0.00019	0.00084	0.00154	0.01087	0.01553	0.09950	0.10650	0.11117	0.11816	0.20913
1.196E-06	1.159E-06	1.038E-06	8.931E-07	8.082E-07	6.875E-07	6.230E-07	6.226E-07	5.890E-07	5.516E-07
2.457	2.649	6.749	6.834	7.578	8.130	8.725	20.241	23.853	23.874
0.26978	0.29077	0.74095	0.75028	0.83192	0.89256	0.95787	2.22210	2.61863	2.62096
4.207E-07	3.534E-07	3.243E-07	3.208E-07	2.719E-07	2.388E-07	1.925E-07	1.841E-07	1.415E-07	1.301E-07
45.949	56.976	68.513	70.510	70.637	84.469	88.251	90.142	94.051	95.963
5.04446	6.25504	7.52160	7.74085	7.75485	9.27332	9.68851	9.89611	10.32529	10.53522
8.032E-08	6.449E-08	3.010E-08	1.806E-08	1.220E-08					
96.091	96.367	97.854	99.809	100.000					
10.54921	10.57954	10.74281	10.95741	10.97840					

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.099
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 0.740

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 5.041
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 7.737

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
15	1	-11.07050	-16.94794	-1.27152
15	2	-13.01641	-16.61528	-1.16393
15	3	-13.77855	-16.54197	-1.13385
15	4	-14.68142	-16.72098	-1.24294
15	5	-14.95230	NUMXQ(K)= 5	
		2.149E-06	0.110	1.000
		1.438E-06	0.329	3.000
		1.175E-06	0.549	5.000
		8.797E-07	1.098	10.000
		7.352E-07	1.647	15.000
		6.432E-07	2.196	20.000
		5.774E-07	2.745	25.000
		5.270E-07	3.294	30.000
		4.868E-07	3.842	35.000
		4.536E-07	4.391	40.000
		4.255E-07	4.940	45.000
		3.996E-07	5.489	50.000
		3.766E-07	6.038	55.000
		3.564E-07	6.587	60.000
		3.385E-07	7.136	65.000
		3.224E-07	7.685	70.000
		1.220E-06	0.5	4.55

ANNUAL AVERAGE = 6.41E-10

K= 15 FIVEXQ(K)= 1.220E-06 FIVEPR(K)= 4.554

FUMIGATION X/Q AT THE BOUNDARY: 7.68E-05

EXPONENTIAL TERM AND FREQUENCIES

5.684E-01	5.200E-01	4.072E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
0.127	2.210	2.613	10.863	64.767	96.091	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 293 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE SSE SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	3.6	0.02	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	4.045E-06			
A	6.0	0.17	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	2.427E-06			
A	8.9	0.32	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	1.640E-06			
A	11.6	0.02	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	1.264E-06			
A	26.5	0.02	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	5.516E-07			
B	3.6	0.06	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	2.858E-06			
B	6.0	0.48	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.715E-06			
B	8.9	0.71	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.159E-06			
B	11.6	0.11	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	8.931E-07			
C	3.6	0.48	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06			
C	6.0	2.16	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06			
C	8.9	2.01	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07			
C	11.6	0.37	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	6.230E-07			
D	0.2	0.00	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05			
D	1.7	1.08	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06			
D	3.6	8.31	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06			
D	6.0	20.04	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07			
D	8.9	19.82	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07			
D	11.6	5.23	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07			
D	26.5	1.36	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07			
E	0.3	0.01	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06			
E	1.8	0.73	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06			
E	3.9	4.38	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07			
E	6.5	11.10	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07			
E	9.6	10.11	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07			
E	12.5	0.93	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07			
E	28.5	0.22	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08			
F	0.3	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06			
F	1.8	0.48	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07			
F	3.9	2.09	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07			
F	6.5	2.72	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07			
F	9.6	0.69	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07			
F	12.5	0.11	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.003E-07			

Calculation No. PM-1055 Revision 0**Attachment J****Page 294 of 1411**

G	1.8	0.41	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	1.27	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	1.84	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	0.11	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08
G	28.5	0.02	90000.	0.	131.	1000 0	46.0	0.0	0.000E+00	0.000E+00	4.104E-09

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 295 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

SSE SECTOR BOUNDARY DISTANCE = 500.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	4.045E-06	2.858E-06	2.427E-06	2.224E-06	1.994E-06	1.715E-06	1.640E-06
0.002	0.008	0.013	0.035	0.100	0.272	1.352	1.827	2.302	2.626
0.00026	0.00083	0.00142	0.00375	0.01075	0.02941	0.14604	0.19735	0.24867	0.28366
1.264E-06	1.262E-06	1.196E-06	1.159E-06	1.038E-06	8.931E-07	8.082E-07	6.875E-07	6.230E-07	6.226E-07
2.648	3.382	5.542	6.254	14.568	14.676	16.685	17.160	17.527	37.568
0.28599	0.36529	0.59855	0.67552	1.57354	1.58520	1.80213	1.85344	1.89310	4.05768
5.890E-07	5.516E-07	4.207E-07	3.534E-07	3.243E-07	3.208E-07	2.388E-07	1.925E-07	1.841E-07	1.415E-07
41.951	41.973	61.798	72.898	78.124	80.219	90.325	93.046	93.975	95.335
4.53118	4.53352	6.67477	7.87369	8.43816	8.66442	9.75604	10.04994	10.15024	10.29718
1.301E-07	1.003E-07	8.032E-08	6.449E-08	3.010E-08	1.806E-08	1.220E-08	4.104E-09		
96.026	96.134	96.350	96.761	98.035	99.870	99.978	100.000		
10.37183	10.38349	10.40681	10.45113	10.58875	10.78701	10.79868	10.80101		

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(2)=	0.197
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(4)=	4.528

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 6.671

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
16	1	-11.07050	-16.67065	-1.22977
16	2	-13.12558	-15.69990	-0.89302
16	3	-13.77855	-16.43273	-1.23363
16	4	-14.34482	-17.31614	-1.75559
16	5	-14.68142	NUMXQ(K)= 5	
		2.502E-06	0.108	1.000
		1.728E-06	0.324	3.000
		1.480E-06	0.540	5.000
		1.182E-06	1.080	10.000
		1.023E-06	1.620	15.000
		8.846E-07	2.160	20.000
		7.868E-07	2.700	25.000
		7.127E-07	3.240	30.000
		6.539E-07	3.780	35.000
		6.056E-07	4.320	40.000
		5.553E-07	4.860	45.000
		5.074E-07	5.401	50.000
		4.669E-07	5.941	55.000
		4.320E-07	6.481	60.000
		1.516E-06	0.5	4.63

ANNUAL AVERAGE = 2.62E-09

K= 16 FIVEXQ(K)= 1.516E-06 FIVEPR(K)= 4.629

FUMIGATION X/Q AT THE BOUNDARY: 7.68E-05

EXPONENTIAL TERM AND FREQUENCIES

5.684E-01	5.200E-01	4.072E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
0.561	5.572	6.932	13.028	68.876	96.350	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 297 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1 96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE ALL SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	1.7	0.01	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	8.668E-06			
A	3.6	0.51	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	4.045E-06			
A	6.0	0.53	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	2.427E-06			
A	8.9	0.28	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	1.640E-06			
A	11.6	0.06	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	1.264E-06			
A	26.5	0.03	500.	0.	131.	100.2	123.6	0.0	0.000E+00	0.000E+00	5.516E-07			
B	1.7	0.05	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	6.124E-06			
B	3.6	0.47	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	2.858E-06			
B	6.0	0.54	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.715E-06			
B	8.9	0.44	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.159E-06			
B	11.6	0.12	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	8.931E-07			
B	26.5	0.03	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	3.897E-07			
C	1.7	0.08	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	4.272E-06			
C	3.6	0.77	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06			
C	6.0	1.33	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06			
C	8.9	1.04	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07			
C	11.6	0.30	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	6.230E-07			
C	26.5	0.13	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	2.719E-07			
D	0.2	0.00	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05			
D	1.7	2.07	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06			
D	3.6	9.39	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06			
D	6.0	15.72	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07			
D	8.9	12.23	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07			
D	11.6	4.24	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07			
D	26.5	1.39	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07			
E	0.3	0.01	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06			
E	1.8	1.97	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06			
E	3.9	8.90	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07			
E	6.5	13.85	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07			
E	9.6	9.53	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07			
E	12.5	1.29	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07			
E	28.5	0.23	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08			
F	0.3	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06			
F	1.8	1.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07			

Calculation No. PM-1055 Revision 0**Attachment J****Page 298 of 1411**

F	3.9	3.14	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07
F	6.5	3.52	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07
F	9.6	1.55	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07
F	12.5	0.16	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.003E-07
F	28.5	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.375E-08
G	1.8	0.43	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	1.17	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	1.14	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	0.31	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08
G	12.5	0.01	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	9.405E-09
G	28.5	0.00	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	4.104E-09

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 299 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

DIRECTION-INDEPENDENT (S.R.P 2.3.4) MODEL.

MINIMUM BOUNDARY DISTANCE = 500.0 METERS.

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	8.668E-06	6.124E-06	4.813E-06	4.272E-06	4.045E-06	2.858E-06	2.427E-06	2.224E-06
0.005	0.019	0.026	0.072	0.084	0.161	0.674	1.145	1.677	3.744
0.00467	0.01866	0.02566	0.07231	0.08397	0.16094	0.67410	1.14527	1.67709	3.74370
1.994E-06	1.715E-06	1.640E-06	1.264E-06	1.262E-06	1.196E-06	1.159E-06	1.038E-06	8.931E-07	8.082E-07
4.509	5.052	5.330	5.388	7.354	8.684	9.125	18.516	18.637	19.680
4.50877	5.05225	5.32982	5.38813	7.35445	8.68399	9.12484	18.51558	18.63687	19.67951
6.875E-07	6.230E-07	6.226E-07	5.890E-07	5.516E-07	4.207E-07	3.897E-07	3.534E-07	3.243E-07	3.208E-07
20.689	20.993	36.712	45.608	45.636	57.865	57.900	71.746	75.987	79.129
20.68949	20.99272	36.71161	45.60785	45.63584	57.86527	57.90026	71.74612	75.98666	79.12857
2.719E-07	2.388E-07	1.925E-07	1.841E-07	1.415E-07	1.301E-07	1.003E-07	8.032E-08	6.449E-08	4.375E-08
79.254	88.781	92.298	93.593	94.980	96.534	96.695	96.923	97.357	97.369
79.25452	88.78055	92.29800	93.59254	94.98039	96.53386	96.69480	96.92339	97.35724	97.36890
3.010E-08	1.806E-08	1.220E-08	9.405E-09	4.104E-09					
98.542	99.678	99.986	99.995	100.000					
98.54216	99.67810	99.98599	99.99532	99.99998					

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS

Calculation No. PM-1055 Revision 0**Attachment J****Page 300 of 1411**

SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

3.662E-06	1.000	1.000
2.436E-06	3.000	3.000
1.977E-06	5.000	5.000
1.446E-06	10.000	10.000
1.171E-06	15.000	15.000
9.978E-07	20.000	20.000
8.845E-07	25.000	25.000
7.938E-07	30.000	30.000
7.180E-07	35.000	35.000
6.529E-07	40.000	40.000
5.956E-07	45.000	45.000
5.478E-07	50.000	50.000
5.043E-07	55.000	55.000
4.636E-07	60.000	60.000
4.249E-07	65.000	65.000
3.877E-07	70.000	70.000
3.511E-07	75.000	75.000

1.977E-06	5.0	5.00
-----------	-----	------

K= 17 FIVEXQ(K)= 1.977E-06 FIVEPR(K)= 5.000

FUMIGATION X/Q AT THE BOUNDARY: 7.68E-05

EXPONENTIAL TERM AND FREQUENCIES

5.684E-01	5.200E-01	4.072E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
1.416	5.059	6.718	16.125	61.163	96.935	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 301 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

FIVE PERCENT OVERALL SITE LIMIT

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	8.668E-06	6.124E-06	4.813E-06	4.272E-06	4.045E-06	2.858E-06	2.427E-06	2.224E-06
0.005	0.019	0.026	0.072	0.084	0.161	0.674	1.145	1.677	3.744
0.00467	0.01866	0.02566	0.07231	0.08397	0.16094	0.67410	1.14527	1.67709	3.74370
1.994E-06	1.715E-06	1.640E-06	1.264E-06	1.262E-06	1.196E-06	1.159E-06	1.038E-06	8.931E-07	8.082E-07
4.509	5.052	5.330	5.388	7.354	8.684	9.125	18.516	18.637	19.680
4.50877	5.05225	5.32982	5.38813	7.35445	8.68399	9.12484	18.51558	18.63688	19.67952
6.875E-07	6.230E-07	6.226E-07	5.890E-07	5.516E-07	4.207E-07	3.897E-07	3.534E-07	3.243E-07	3.208E-07
20.689	20.993	36.712	45.608	45.636	57.865	57.900	71.746	75.987	79.129
20.68950	20.99273	36.71161	45.60786	45.63585	57.86527	57.90026	71.74612	75.98665	79.12857
2.719E-07	2.388E-07	1.925E-07	1.841E-07	1.415E-07	1.301E-07	1.003E-07	8.032E-08	6.449E-08	4.375E-08
79.255	88.781	92.298	93.593	94.980	96.534	96.695	96.923	97.357	97.369
79.25453	88.78056	92.29800	93.59256	94.98041	96.53387	96.69481	96.92340	97.35724	97.36890
3.010E-08	1.806E-08	1.220E-08	9.405E-09	4.104E-09					
98.542	99.678	99.986	99.995	100.000					
98.54216	99.67809	99.98598	99.99532	99.99998					

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS

Calculation No. PM-1055 Revision 0

SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

Attachment J

Page 302 of 1411

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
18	1	-11.07050	-14.64728	-0.91538
18	2	-13.01641	-14.54922	-0.86034
18	3	-13.77855	-14.42414	-0.72071
18	4	-14.34482	-14.41743	-0.65976
18	5	-14.95230	NUMXQ(K)= 5	
		3.662E-06	1.000	1.000
		2.436E-06	3.000	3.000
		1.977E-06	5.000	5.000
		1.446E-06	10.000	10.000
		1.171E-06	15.000	15.000
		9.978E-07	20.000	20.000
		8.845E-07	25.000	25.000
		7.938E-07	30.000	30.000
		7.180E-07	35.000	35.000
		6.529E-07	40.000	40.000
		5.956E-07	45.000	45.000
		5.478E-07	50.000	50.000
		5.043E-07	55.000	55.000
		4.636E-07	60.000	60.000
		4.249E-07	65.000	65.000
		3.877E-07	70.000	70.000
		3.511E-07	75.000	75.000
		1.977E-06	5.0	5.00

K= 18 FIVEXQ(K)= 1.977E-06 FIVEPR(K)= 5.000

K	HIGHPR	PR	GRNDVT(K)
1	-3.06052	0.11048	6.21119
2	-2.00327	2.25740	3.52599
3	-2.79824	0.25691	3.10868
4	-2.68650	0.36103	3.53145
5	-2.57624	0.49942	4.76778
6	-2.75266	0.29557	4.27759
7	-3.06855	0.10756	5.37148
8	-3.25087	0.05753	5.07527
9	-3.17144	0.07585	10.00153
10	-3.29988	0.04837	5.86355
11	-3.25284	0.05714	4.96796
12	-3.40963	0.03253	4.95848
13	-3.27701	0.05246	7.82046
14	-3.20434	0.06769	8.73919
15	-3.25156	0.05739	10.97840
16	-3.13645	0.08551	10.80101

K	HOURS(K)	TOTHR
1	9.67833	9.67833
2	197.74830	207.42660
3	22.50566	229.93230

4	31.62634	261.55860
5	43.74879	305.30740
6	25.89224	331.19960
7	9.42196	340.62160
8	5.03966	345.66130
9	6.64419	352.30550
10	4.23714	356.54260
11	5.00520	361.54780
12	2.84982	364.39760
13	4.59585	368.99350
14	5.92991	374.92340
15	5.02765	379.95100
16	7.49057	387.44160

K	FIVEXQ	SVANN	SLTIME	TIMINT	I	TIME	XQT
1	1.547E-06	1.719E-09	-0.8113	-12.8169	1	8.0	-14.50390
					2	16.0	-15.06623
					3	72.0	-16.28644
					4	624.0	-18.03836
2	1.537E-06	3.659E-09	-0.7204	-12.8863	1	8.0	-14.38432
					2	16.0	-14.88366
					3	72.0	-15.96719
					4	624.0	-17.52288
3	1.997E-06	6.989E-09	-0.6744	-12.6564	1	8.0	-14.05880
					2	16.0	-14.52627
					3	72.0	-15.54065
					4	624.0	-16.99704
4	2.335E-06	1.173E-08	-0.6313	-12.5300	1	8.0	-13.84281
					2	16.0	-14.28041
					3	72.0	-15.22995
					4	624.0	-16.59327
5	2.724E-06	2.232E-08	-0.5729	-12.4164	1	8.0	-13.60780
					2	16.0	-14.00494
					3	72.0	-14.86670
					4	624.0	-16.10397
6	2.196E-06	1.266E-08	-0.6149	-12.6026	1	8.0	-13.88121
					2	16.0	-14.30743
					3	72.0	-15.23229
					4	624.0	-16.56017
7	1.574E-06	4.141E-09	-0.7085	-12.8708	1	8.0	-14.34400
					2	16.0	-14.83506
					3	72.0	-15.90064
					4	624.0	-17.43054
8	1.303E-06	8.006E-10	-0.8819	-12.9398	1	8.0	-14.77367
					2	16.0	-15.38494

9	1.473E-06	2.304E-09	-0.7705	-12.8940	3	72.0	-16.71135
					4	624.0	-18.61576
					1	8.0	-14.49614
					2	16.0	-15.03019
10	1.246E-06	1.562E-09	-0.7968	-13.0436	3	72.0	-16.18902
					4	624.0	-17.85283
					1	8.0	-14.70058
					2	16.0	-15.25289
11	1.217E-06	1.245E-09	-0.8211	-13.0502	3	72.0	-16.45137
					4	624.0	-18.17210
					1	8.0	-14.75760
					2	16.0	-15.32674
12	1.120E-06	1.292E-09	-0.8068	-13.1427	3	72.0	-16.56173
					4	624.0	-18.33486
					1	8.0	-14.82034
					2	16.0	-15.37956
13	1.266E-06	3.555E-09	-0.7007	-13.0939	3	72.0	-16.59302
					4	624.0	-18.33525
					1	8.0	-14.55097
					2	16.0	-15.03666
14	1.132E-06	2.083E-09	-0.7511	-13.1705	3	72.0	-16.09056
					4	624.0	-17.60370
					1	8.0	-14.73245
					2	16.0	-15.25309
15	1.220E-06	6.412E-10	-0.9005	-12.9925	3	72.0	-16.38285
					4	624.0	-18.00490
					1	8.0	-14.86511
					2	16.0	-15.48930
16	1.516E-06	2.620E-09	-0.7586	-12.8734	3	72.0	-16.84375
					4	624.0	-18.78841
					1	8.0	-14.45091
					2	16.0	-14.97674
17	1.977E-06	2.232E-08	-0.5348	-12.7631	3	72.0	-16.11773
					4	624.0	-17.75593
					1	8.0	-13.87511
					2	16.0	-14.24577
18	1.977E-06	2.232E-08	-0.5348	-12.7631	3	72.0	-15.05008
					4	624.0	-16.20488
					1	8.0	-13.87511
					2	16.0	-14.24577

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

RUN DATE: 12/29/02

Page 305 of 1411

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

RELATIVE CONCENTRATION (X/Q) VALUES (SEC/CUBIC METER)

VERSUS

AVERAGING TIME

HOURS PER YEAR MAX

0-2 HR X/Q IS

EXCEEDED

DOWNWIND

DOWNWIND DISTANCE								EXCEEDED	DOWNWIND
SECTOR	(METERS)	0-2 HOURS	0-8 HOURS	8-24 HOURS	1-4 DAYS	4-30 DAYS	ANNUAL AVERAGE	IN SECTOR	SECTOR
S	500.	1.55E-06	5.02E-07	2.86E-07	8.45E-08	1.47E-08	1.72E-09	9.7	S
SSW	500.	1.54E-06	5.66E-07	3.44E-07	1.16E-07	2.45E-08	3.66E-09	197.7	SSW
SW	500.	2.00E-06	7.84E-07	4.91E-07	1.78E-07	4.15E-08	6.99E-09	22.5	SW
WSW	500.	2.33E-06	9.73E-07	6.28E-07	2.43E-07	6.22E-08	1.17E-08	31.6	WSW
W	500.	2.72E-06	1.23E-06	8.27E-07	3.50E-07	1.01E-07	2.23E-08	43.7	W
WNW	500.	2.20E-06	9.36E-07	6.11E-07	2.42E-07	6.43E-08	1.27E-08	25.9	WNW
NW	500.	1.57E-06	5.89E-07	3.61E-07	1.24E-07	2.69E-08	4.14E-09	9.4	NW
NNW	500.	1.30E-06	3.84E-07	2.08E-07	5.53E-08	8.23E-09	8.01E-10	5.0	NNW
N	500.	1.47E-06	5.06E-07	2.97E-07	9.32E-08	1.76E-08	2.30E-09	6.6	N
NNE	500.	1.25E-06	4.13E-07	2.38E-07	7.17E-08	1.28E-08	1.56E-09	4.2	NNE
NE	500.	1.22E-06	3.90E-07	2.21E-07	6.42E-08	1.09E-08	1.24E-09	5.0	NE
ENE	500.	1.12E-06	3.66E-07	2.09E-07	6.22E-08	1.09E-08	1.29E-09	2.8	ENE
E	500.	1.27E-06	4.79E-07	2.95E-07	1.03E-07	2.26E-08	3.55E-09	4.6	E
ESE	500.	1.13E-06	4.00E-07	2.38E-07	7.67E-08	1.52E-08	2.08E-09	5.9	ESE
SE	500.	1.22E-06	3.50E-07	1.88E-07	4.84E-08	6.92E-09	6.41E-10	5.0	SE
SSE	500.	1.52E-06	5.30E-07	3.13E-07	1.00E-07	1.94E-08	2.62E-09	7.5	SSE
MAX X/Q		2.72E-06				TOTAL HOURS AROUND SITE:		387.4	
SRP 2.3.4	500.	1.98E-06	9.42E-07	6.50E-07	2.91E-07	9.17E-08	2.23E-08		
SITE LIMIT		1.98E-06	9.42E-07	6.50E-07	2.91E-07	9.17E-08	2.23E-08		

0.5 PERCENT X/Q TO AN INDIVIDUAL IS LIMITING.

X/O VALUES (SEC/CUBIC METER) FOR FUMIGATION AT THE BOUNDARY:

DOWNWIND DISTANCE FUMIGATION

SECTOR	(METERS)	X/Q
S	500.	7.68E-05
SSW	500.	7.68E-05
SW	500.	7.68E-05
WSW	500.	7.68E-05
W	500.	7.68E-05
WNW	500.	7.68E-05
NW	500.	7.68E-05
NNW	500.	7.68E-05
N	500.	7.68E-05
NNE	500.	7.68E-05
NE	500.	7.68E-05
ENE	500.	7.68E-05
E	500.	7.68E-05

ESE	500.	7.68E-05
SE	500.	7.68E-05
SSE	500.	7.68E-05

****NOTE**:** VALUES ON THIS PAGE ARE APPROXIMATIONS ONLY.
CHECK THE REASONABLENESS OF THE ENVELOPES
COMPUTED FOR THE 0-2 HOUR VALUES. FOR ANY
FAULTY ENVELOPES, ADJUST THE ABOVE VALUES.

Off Gas Stack to Control Room (Tower 2 320' wind and 316'-33' Delta T Stability Class; distances of 750 m and 1000 m)

10.1-96.3 meters

7 1

0 0 0 2 6 5 0

0.	0.	0.	0.	3.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
6.	9.	23.	39.	87.	44.	4.	2.	0.	2.	2.	0.	1.	0.	0.	1.
0.	9.	20.	29.	46.	44.	20.	2.	12.	7.	5.	7.	8.	9.	2.	8.
2.	4.	9.	18.	7.	3.	13.	0.	7.	3.	2.	3.	21.	9.	3.	15.
2.	2.	0.	1.	0.	1.	0.	0.	0.	0.	0.	2.	14.	2.	0.	1.
0.	0.	0.	0.	0.	1.	0.	0.	0.	0.	0.	2.	2.	5.	1.	1.
0.	2.	2.	9.	5.	0.	2.	0.	0.	0.	0.	0.	0.	0.	0.	0.
13.	23.	18.	25.	56.	29.	10.	3.	3.	4.	3.	1.	4.	3.	4.	3.
4.	15.	13.	15.	12.	25.	27.	8.	25.	14.	13.	8.	21.	9.	2.	22.
10.	3.	2.	1.	1.	2.	8.	8.	31.	9.	6.	19.	27.	20.	9.	33.
1.	2.	1.	0.	0.	1.	1.	1.	5.	2.	1.	2.	12.	14.	4.	5.
0.	0.	0.	0.	0.	0.	0.	0.	1.	0.	0.	1.	6.	7.	0.	0.
0.	5.	12.	15.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
31.	22.	28.	37.	50.	65.	14.	12.	19.	5.	7.	3.	5.	5.	3.	22.
42.	19.	9.	17.	14.	26.	62.	22.	72.	37.	30.	26.	42.	26.	26.	100.
18.	8.	4.	3.	3.	4.	11.	10.	67.	24.	21.	31.	56.	59.	35.	93.
4.	1.	0.	0.	1.	2.	0.	1.	9.	0.	4.	4.	29.	30.	28.	17.
1.	4.	0.	0.	0.	0.	0.	0.	1.	0.	1.	1.	13.	27.	6.	0.
59.	58.	108.	119.	115.	86.	45.	35.	41.	23.	32.	15.	26.	38.	36.	50.
330.	211.	238.	336.	435.	304.	339.	243.	300.	191.	155.	128.	141.	97.	193.	385.
521.	349.	251.	278.	331.	308.	478.	466.	708.	425.	287.	211.	301.	355.	542.	928.
396.	154.	85.	67.	132.	140.	161.	118.	482.	166.	126.	190.	395.	674.	1039.	918.
73.	27.	13.	11.	32.	26.	14.	11.	99.	16.	16.	22.	225.	448.	543.	242.
15.	7.	12.	2.	8.	2.	7.	7.	29.	9.	3.	6.	90.	151.	184.	63.
60.	44.	36.	61.	60.	60.	61.	59.	70.	56.	59.	54.	54.	36.	39.	34.
235.	164.	150.	219.	283.	200.	345.	311.	435.	320.	281.	187.	173.	138.	170.	203.
367.	201.	156.	101.	161.	257.	349.	443.	891.	577.	354.	297.	395.	354.	519.	514.
156.	38.	26.	11.	58.	63.	98.	165.	516.	228.	216.	271.	536.	583.	651.	468.
23.	8.	8.	4.	12.	21.	16.	11.	64.	19.	18.	30.	78.	111.	89.	43.
7.	1.	1.	1.	20.	4.	12.	2.	6.	4.	2.	1.	9.	12.	6.	10.
26.	19.	22.	26.	31.	23.	28.	32.	23.	32.	32.	33.	30.	28.	26.	22.
99.	38.	34.	29.	34.	52.	81.	90.	134.	141.	156.	117.	85.	66.	94.	97.
81.	25.	13.	8.	13.	24.	48.	79.	130.	111.	157.	177.	198.	140.	178.	126.
4.	1.	1.	0.	0.	2.	7.	8.	44.	23.	39.	109.	168.	138.	90.	32.
1.	0.	0.	0.	0.	0.	0.	0.	0.	3.	0.	18.	24.	18.	0.	5.
0.	0.	0.	0.	4.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
11.	14.	11.	10.	13.	5.	4.	9.	17.	9.						

Calculation No. PM-1055 Revision 0

Attachment J

Page 308 of 1411

[illegible]

PAVAN Output**Off Gas Stack to Control Room (Tower 2 320' wind and 316'-33' Delta T Stability Class; distances of 750 m and 1000 m)**

Copyright (c) 1990 Ergo Computing, Inc. for Lahey

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

RUN DATE: 12/29/02

PRINTOUT OF INPUT CARDS

```

1      00010 01111 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 2      Peach Bottom
Stack Release
3      97.5 meters          10.1-96.3 meters
4
5      Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T          6          7 42872          1
7      0.500 2584.000      54.300 131.400      97.500
8      0.000 0.000 0.000 2.000 6.000 5.000 0.000
9      0.000 0.000 0.000 0.000 3.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
9      6.000 9.000 23.000 39.000 87.000 44.000 4.000 2.000 0.000 2.000 2.000 0.000 1.000 0.000 0.000 0.000 1.000
9      0.000 9.000 20.000 29.000 46.000 44.000 20.000 2.000 12.000 7.000 5.000 7.000 8.000 9.000 2.000 8.000
9      2.000 4.000 9.000 18.000 7.000 3.000 13.000 0.000 7.000 3.000 2.000 3.000 21.000 9.000 3.000 15.000
9      2.000 2.000 0.000 1.000 0.000 1.000 0.000 0.000 0.000 0.000 0.000 2.000 14.000 2.000 0.000 1.000
9      0.000 0.000 0.000 0.000 0.000 1.000 0.000 0.000 0.000 0.000 0.000 2.000 2.000 5.000 1.000 1.000
9      0.000 2.000 2.000 9.000 5.000 0.000 2.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
9      13.000 23.000 18.000 25.000 56.000 29.000 10.000 3.000 3.000 4.000 3.000 1.000 4.000 3.000 4.000 3.000
9      4.000 15.000 13.000 15.000 12.000 25.000 27.000 8.000 25.000 14.000 13.000 8.000 21.000 9.000 2.000 22.000
9      10.000 3.000 2.000 1.000 1.000 2.000 8.000 8.000 31.000 9.000 6.000 19.000 27.000 20.000 9.000 33.000
9      1.000 2.000 1.000 0.000 0.000 1.000 1.000 1.000 5.000 2.000 1.000 2.000 12.000 14.000 4.000 5.000
9      0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 1.000 0.000 0.000 1.000 6.000 7.000 0.000 0.000
9      0.000 5.000 12.000 15.000 1.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
9      31.000 22.000 28.000 37.000 50.000 65.000 14.000 12.000 19.000 5.000 7.000 3.000 5.000 5.000 3.000 22.000
9      42.000 19.000 9.000 17.000 14.000 26.000 62.000 22.000 72.000 37.000 30.000 26.000 42.000 26.000 26.000 100.000
9      18.000 8.000 4.000 3.000 3.000 4.000 11.000 10.000 67.000 24.000 21.000 31.000 56.000 59.000 35.000 93.000
9      4.000 1.000 0.000 0.000 1.000 2.000 0.000 1.000 9.000 0.000 4.000 4.000 29.000 30.000 28.000 17.000
9      1.000 4.000 0.000 0.000 0.000 0.000 0.000 0.000 1.000 0.000 1.000 1.000 13.000 27.000 6.000 0.000
9      59.000 58.000 108.000 119.000 115.000 86.000 45.000 35.000 41.000 23.000 32.000 15.000 26.000 38.000 36.000 50.000
9      330.000 211.000 238.000 336.000 435.000 304.000 339.000 243.000 300.000 191.000 155.000 128.000 141.000 97.000 193.000 385.000
9      521.000 349.000 251.000 278.000 331.000 308.000 478.000 466.000 708.000 425.000 287.000 211.000 301.000 355.000 542.000 928.000
9      396.000 154.000 85.000 67.000 132.000 140.000 161.000 118.000 482.000 166.000 126.000 190.000 395.000 674.000 *****918.000
9      73.000 27.000 13.000 11.000 32.000 26.000 14.000 11.000 99.000 16.000 16.000 22.000 225.000 448.000 543.000 242.000
9      15.000 7.000 12.000 2.000 8.000 2.000 7.000 7.000 29.000 9.000 3.000 6.000 90.000 151.000 184.000 63.000
9      60.000 44.000 36.000 61.000 60.000 60.000 61.000 59.000 70.000 56.000 59.000 54.000 54.000 36.000 39.000 34.000
9      235.000 164.000 150.000 219.000 283.000 200.000 345.000 311.000 435.000 320.000 281.000 187.000 173.000 138.000 170.000 203.000
9      367.000 201.000 156.000 101.000 161.000 257.000 349.000 443.000 891.000 577.000 354.000 297.000 395.000 354.000 519.000 514.000
9      156.000 38.000 26.000 11.000 58.000 63.000 98.000 165.000 516.000 228.000 216.000 271.000 536.000 583.000 651.000 468.000
9      23.000 8.000 8.000 4.000 12.000 21.000 16.000 11.000 64.000 19.000 18.000 30.000 78.000 111.000 89.000 43.000
9      7.000 1.000 1.000 1.000 20.000 4.000 12.000 2.000 6.000 4.000 2.000 1.000 9.000 12.000 6.000 10.000
9      26.000 19.000 22.000 26.000 31.000 23.000 28.000 32.000 23.000 32.000 32.000 33.000 30.000 28.000 26.000 22.000
9      99.000 38.000 34.000 29.000 34.000 52.000 81.000 90.000 134.000 141.000 156.000 117.000 85.000 66.000 94.000 97.000
9      81.000 25.000 13.000 8.000 13.000 24.000 48.000 79.000 130.000 111.000 157.000 177.000 198.000 140.000 178.000 126.000
9      4.000 1.000 1.000 0.000 0.000 2.000 7.000 8.000 44.000 23.000 39.000 109.000 168.000 138.000 90.000 32.000

```

Calculation No. PM-1055 Revision 0

Attachment J

Page 310 of 1411

[illegible]

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 311 of 1411

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1 96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION

ATMOSPHERIC STABILITY CLASS A

WIND SPEED (M/S)

TOWER RELEASE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
0.22 0.24	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.56 1.69	0.000	0.000	0.000	0.000	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.007
3.35 3.61	0.014	0.021	0.054	0.091	0.203	0.103	0.009	0.005	0.000	0.005	0.005	0.000	0.002	0.000	0.000	0.002	0.513
5.59 6.02	0.000	0.021	0.047	0.068	0.107	0.103	0.047	0.005	0.028	0.016	0.012	0.016	0.019	0.021	0.005	0.019	0.532
8.27 8.91	0.005	0.009	0.021	0.042	0.016	0.007	0.030	0.000	0.016	0.007	0.005	0.007	0.049	0.021	0.007	0.035	0.278
10.73 11.56	0.005	0.005	0.000	0.002	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.005	0.033	0.005	0.000	0.002	0.058
24.59 26.49	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.005	0.005	0.012	0.002	0.002	0.028
TOTAL	0.02	0.06	0.12	0.20	0.33	0.22	0.09	0.01	0.04	0.03	0.02	0.03	0.11	0.06	0.01	0.06	1.42

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION

ATMOSPHERIC STABILITY CLASS B

WIND SPEED (M/S)

TOWER RELEASE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
0.22 0.24	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.56 1.69	0.000	0.005	0.005	0.021	0.012	0.000	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.047
3.35 3.61	0.030	0.054	0.042	0.058	0.131	0.068	0.023	0.007	0.007	0.009	0.007	0.002	0.009	0.007	0.009	0.007	0.471
5.59 6.02	0.009	0.035	0.030	0.035	0.028	0.058	0.063	0.019	0.058	0.033	0.030	0.019	0.049	0.021	0.005	0.051	0.543
8.27 8.91	0.023	0.007	0.005	0.002	0.002	0.005	0.019	0.019	0.072	0.021	0.014	0.044	0.063	0.047	0.021	0.077	0.441
10.73 11.56	0.002	0.005	0.002	0.000	0.000	0.002	0.002	0.002	0.012	0.005	0.002	0.005	0.028	0.033	0.009	0.012	0.121
24.59 26.49	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.002	0.014	0.016	0.000	0.000	0.035
TOTAL	0.07	0.10	0.08	0.12	0.17	0.13	0.11	0.05	0.15	0.07	0.05	0.07	0.16	0.12	0.04	0.15	1.66

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION

ATMOSPHERIC STABILITY CLASS C

WIND SPEED (M/S)

TOWER RELEASE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
0.22 0.24	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.56 1.69	0.000	0.012	0.028	0.035	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.077
3.35 3.61	0.072	0.051	0.065	0.086	0.117	0.152	0.033	0.028	0.044	0.012	0.016	0.007	0.012	0.012	0.007	0.051	0.765
5.59 6.02	0.098	0.044	0.021	0.040	0.033	0.061	0.145	0.051	0.168	0.086	0.070	0.061	0.098	0.061	0.061	0.233	1.330
8.27 8.91	0.042	0.019	0.009	0.007	0.007	0.009	0.026	0.023	0.156	0.056	0.049	0.072	0.131	0.138	0.082	0.217	1.043
10.73 11.56	0.009	0.002	0.000	0.000	0.002	0.005	0.000	0.002	0.021	0.000	0.009	0.009	0.068	0.070	0.065	0.040	0.303
24.59 26.49	0.002	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.002	0.002	0.030	0.063	0.014	0.000	0.126
TOTAL	0.22	0.14	0.12	0.17	0.16	0.23	0.20	0.10	0.39	0.15	0.15	0.15	0.34	0.34	0.23	0.54	3.64

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION

ATMOSPHERIC STABILITY CLASS D

WIND SPEED (M/S)

TOWER RELEASE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
0.22 0.24	0.000	0.000	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.005
1.56 1.69	0.138	0.135	0.252	0.278	0.268	0.201	0.105	0.082	0.096	0.054	0.075	0.035	0.061	0.089	0.084	0.117	2.067

Calculation No. PM-1055 Revision 0
Attachment J
Page 312 of 1411

3.35	3.61	0.770	0.492	0.555	0.784	1.015	0.709	0.791	0.567	0.700	0.446	0.362	0.299	0.329	0.226	0.450	0.898	9.391
5.59	6.02	1.215	0.814	0.585	0.648	0.772	0.718	1.115	1.087	1.651	0.991	0.669	0.492	0.702	0.828	1.264	2.165	15.719
8.27	8.91	0.924	0.359	0.198	0.156	0.308	0.327	0.376	0.275	1.124	0.387	0.294	0.443	0.921	1.572	2.423	2.141	12.229
10.73	11.56	0.170	0.063	0.030	0.026	0.075	0.061	0.033	0.026	0.231	0.037	0.037	0.051	0.525	1.045	1.267	0.564	4.241
24.59	26.49	0.035	0.016	0.028	0.005	0.019	0.005	0.016	0.016	0.068	0.021	0.007	0.014	0.210	0.352	0.429	0.147	1.388
TOTAL		3.25	1.88	1.65	1.90	2.46	2.02	2.44	2.05	3.87	1.94	1.44	1.33	2.75	4.11	5.92	6.03	45.04

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION
WIND SPEED (M/S)
ATMOSPHERIC STABILITY CLASS E

TOWER RELEASE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
0.22 0.26	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.014
1.56 1.82	0.140	0.103	0.084	0.142	0.140	0.140	0.142	0.138	0.163	0.131	0.138	0.126	0.126	0.084	0.091	0.079	1.966
3.35 3.89	0.548	0.383	0.350	0.511	0.660	0.467	0.805	0.725	1.015	0.746	0.655	0.436	0.404	0.322	0.397	0.474	8.896
5.59 6.49	0.856	0.469	0.364	0.236	0.376	0.599	0.814	1.033	2.078	1.346	0.826	0.693	0.921	0.826	1.211	1.199	13.846
8.27 9.60	0.364	0.089	0.061	0.026	0.135	0.147	0.229	0.385	1.204	0.532	0.504	0.632	1.250	1.360	1.518	1.092	9.526
10.73 12.46	0.054	0.019	0.019	0.009	0.028	0.049	0.037	0.026	0.149	0.044	0.042	0.070	0.182	0.259	0.208	0.100	1.295
24.59 28.54	0.016	0.002	0.002	0.002	0.047	0.009	0.028	0.005	0.014	0.009	0.005	0.002	0.021	0.028	0.014	0.023	0.229
TOTAL	1.98	1.06	0.88	0.93	1.39	1.41	2.06	2.31	4.62	2.81	2.17	1.96	2.90	2.88	3.44	2.97	35.77

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION
WIND SPEED (M/S)
ATMOSPHERIC STABILITY CLASS F

TOWER RELEASE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
0.22 0.26	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.012
1.56 1.82	0.061	0.044	0.051	0.061	0.072	0.054	0.065	0.075	0.054	0.075	0.075	0.077	0.070	0.065	0.061	0.051	1.010
3.35 3.89	0.231	0.089	0.079	0.068	0.079	0.121	0.189	0.210	0.313	0.329	0.364	0.273	0.198	0.154	0.219	0.226	3.142
5.59 6.49	0.189	0.058	0.030	0.019	0.030	0.056	0.112	0.184	0.303	0.259	0.366	0.413	0.462	0.327	0.415	0.294	3.517
8.27 9.60	0.009	0.002	0.002	0.000	0.000	0.005	0.016	0.019	0.103	0.054	0.091	0.254	0.392	0.322	0.210	0.075	1.553
10.73 12.46	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.007	0.000	0.042	0.056	0.042	0.000	0.012	0.161
24.59 28.54	0.000	0.000	0.000	0.000	0.009	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.012
TOTAL	0.49	0.19	0.16	0.15	0.19	0.24	0.38	0.49	0.77	0.72	0.90	1.06	1.18	0.91	0.91	0.66	9.41

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION
WIND SPEED (M/S)
ATMOSPHERIC STABILITY CLASS G

TOWER RELEASE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
0.22 0.26	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.56 1.82	0.026	0.033	0.026	0.023	0.030	0.012	0.009	0.021	0.040	0.021	0.014	0.042	0.030	0.033	0.030	0.044	0.434
3.35 3.89	0.110	0.044	0.051	0.044	0.030	0.014	0.065	0.023	0.079	0.072	0.084	0.079	0.093	0.082	0.163	0.138	1.173
5.59 6.49	0.037	0.012	0.009	0.005	0.005	0.005	0.019	0.014	0.023	0.049	0.119	0.163	0.161	0.103	0.215	0.198	1.136
8.27 9.60	0.002	0.000	0.000	0.000	0.000	0.000	0.002	0.002	0.005	0.002	0.019	0.061	0.091	0.091	0.021	0.012	0.308
10.73 12.46	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.002	0.005	0.000	0.000	0.009
24.59 28.54	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.002	0.005
TOTAL	0.17	0.09	0.09	0.07	0.07	0.03	0.10	0.06	0.15	0.14	0.24	0.35	0.38	0.31	0.43	0.39	3.06

WIND MEASURED AT 97.5 METERS.

WIND SPEED CORRECTED TO THE RELEASE HEIGHT OF 131.4 METERS.

OVERALL WIND DIRECTION FREQUENCY

WIND DIRECTION:	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
FREQUENCY:	6.2	3.5	3.1	3.5	4.8	4.3	5.4	5.1	10.0	5.9	5.0	5.0	7.8	8.7	11.0	10.8

OVERALL WIND SPEED FREQUENCY AS MEASURED ON THE TOWER:

MAX.WIND SPEED (M/S):	0.224	1.565	3.353	5.588	8.270	10.729	24.587
WIND SPEED FREQUENCY:	0.03	5.61	24.35	36.62	25.38	6.19	1.82

BUILDING AND RELEASE CHARACTERISTICS:

RELEASE HEIGHT: 131.40 METERS

MIXING VOLUME COEFFICIENT: 0.50

BUILDING CROSS-SECTIONAL AREA: 2584.00 SQUARE METERS

BOUNDARY DISTANCES (METERS) FROM THE SOURCE FOR EACH DOWNWIND SECTOR:

DOWNWIND SECTOR	S	SSW	SW	WSW	W	WNW	NW	NNW	N	NNE	NE	ENE	E	ESE	SE	SSE
BOUNDARY 1	750.	750.	750.	750.	750.	750.	750.	750.	750.	750.	750.	750.	750.	750.	750.	750.
BOUNDARY 2	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.	1000.

DISTANCES AND TERRAIN HEIGHTS (IN METERS) AS A FUNCTION OF THE DOWNWIND SECTOR:

SECTOR	S	SSW	SW	WSW	W	WNW	NW	NNW	N	NNE	NE	ENE	E	ESE	SE	SSE
DISTANCE	500.	500.	500.	500.	500.	500.	500.	500.	500.	500.	500.	500.	500.	500.	500.	500.
ELEVATION	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

THE CONVERSION FACTOR APPLIED TO THE WIND SPEED CLASSES IS 0.447

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 314 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

WINDSPEEDS ADJUSTED TO 131.4 METERS.

PERCENT OF THE TIME A GIVEN WINDSPEED IS LOWER:

WINDSPEED (METER/SEC)	CUMULATIVE FREQUENCY (PERCENT)
0.24	0.00
0.26	0.03
1.69	2.23
1.82	5.64
3.61	16.78
3.89	29.99
6.02	48.11
6.49	66.61
8.91	80.60
9.60	91.99
11.56	96.71
12.46	98.18
26.49	99.76
28.54	100.00

WINDSPEED (INTERPOLATED) (METER/SEC)	CUMULATIVE FREQUENCY (PERCENT)
0.26	0.03
1.77	5.64
3.76	29.99
6.26	66.61
9.22	91.99
11.77	98.18
26.77	100.00

LOG-NORMAL INTERPOLATION PERCENTILES

WINDSPEED (METER/SEC)	CUMULATIVE FREQUENCY (PERCENT)
0.81	1.00
1.30	3.00
1.66	5.00
2.19	10.00
2.61	15.00
3.00	20.00

3.38	25.00
3.76	30.00
4.05	35.00
4.35	40.00
4.66	45.00
4.98	50.00
5.32	55.00
5.70	60.00
6.11	65.00
6.50	70.00
6.90	75.00
7.37	80.00
8.11	85.00
8.78	90.00

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 316 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE S SECTOR.

STABILITY CLASS	WINDSPEED METER/SEC	FREQUENCY PERCENT	DISTANCE METERS	TERRAIN METERS	HT METERS	EFF METERS	PLUME METERS	HT METERS	SIGMA-Y METERS	SIGMA-Z METERS	MEANDER-SY METERS	** CHI/Q VALUES (SEC/CUBIC METER)		
												MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	3.6	0.23	750.	0.	131.	144.4	260.5	0.0	0.000E+00	0.000E+00	2.062E-06			
A	8.9	0.08	750.	0.	131.	144.4	260.5	0.0	0.000E+00	0.000E+00	8.360E-07			
A	11.6	0.08	750.	0.	131.	144.4	260.5	0.0	0.000E+00	0.000E+00	6.444E-07			
B	3.6	0.49	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	2.858E-06			
B	6.0	0.15	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.715E-06			
B	8.9	0.38	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.159E-06			
B	11.6	0.04	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	8.931E-07			
C	3.6	1.16	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06			
C	6.0	1.58	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06			
C	8.9	0.68	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07			
C	11.6	0.15	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	6.230E-07			
C	26.5	0.04	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	2.719E-07			
D	0.2	0.01	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05			
D	1.7	2.22	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06			
D	3.6	12.39	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06			
D	6.0	19.57	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07			
D	8.9	14.87	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07			
D	11.6	2.74	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07			
D	26.5	0.56	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07			
E	0.3	0.02	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06			
E	1.8	2.25	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06			
E	3.9	8.83	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07			
E	6.5	13.78	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07			
E	9.6	5.86	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07			
E	12.5	0.86	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07			
E	28.5	0.26	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08			
F	0.3	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06			
F	1.8	0.98	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07			
F	3.9	3.72	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07			
F	6.5	3.04	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07			
F	9.6	0.15	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07			
F	12.5	0.04	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.003E-07			
G	1.8	0.41	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08			

Calculation No. PM-1055 Revision 0**Attachment J****Page 317 of 1411**

G	3.9	1.77	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	0.60	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	0.04	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 318 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

S SECTOR BOUNDARY DISTANCE = 750.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.858E-06	2.224E-06	2.062E-06	1.994E-06	1.715E-06	1.262E-06	1.196E-06
0.005	0.021	0.032	0.521	2.736	2.961	4.126	4.276	6.529	8.106
0.00031	0.00131	0.00201	0.03233	0.16995	0.18394	0.25625	0.26558	0.40553	0.50350
1.159E-06	1.038E-06	8.931E-07	8.360E-07	8.082E-07	6.875E-07	6.444E-07	6.230E-07	6.226E-07	5.890E-07
8.482	20.875	20.912	20.987	21.663	22.640	22.715	22.865	42.430	51.255
0.52683	1.29656	1.29889	1.30356	1.34554	1.40619	1.41085	1.42018	2.63543	3.18357
4.207E-07	3.534E-07	3.243E-07	3.208E-07	2.719E-07	2.388E-07	1.925E-07	1.841E-07	1.415E-07	1.301E-07
66.127	79.909	82.650	86.368	86.406	92.264	95.306	96.170	96.733	96.883
4.10725	4.96329	5.13356	5.36448	5.36681	5.73069	5.91962	5.97327	6.00826	6.01759
1.003E-07	8.032E-08	6.449E-08	3.010E-08	1.806E-08	1.220E-08				
96.921	97.183	97.597	99.362	99.962	100.000				
6.01992	6.03625	6.06191	6.17153	6.20886	6.21119				

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.256
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 1.295

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 3.181
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 4.960

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
1	1	-11.07050	-16.47142	-1.19518
1	2	-13.12558	-16.32272	-1.14207
1	3	-13.77855	-17.16233	-1.51897
1	4	-14.34482	-18.94210	-2.47847
1	5	-14.85564	NUMXQ(K)= 5	
		3.332E-06	0.062	1.000
		2.250E-06	0.186	3.000
		1.856E-06	0.311	5.000
		1.417E-06	0.621	10.000
		1.198E-06	0.932	15.000
		1.057E-06	1.242	20.000
		9.317E-07	1.553	25.000
		8.333E-07	1.863	30.000
		7.564E-07	2.174	35.000
		6.942E-07	2.484	40.000
		6.426E-07	2.795	45.000
		5.990E-07	3.106	50.000
		5.446E-07	3.416	55.000
		4.938E-07	3.727	60.000
		4.506E-07	4.037	65.000
		4.134E-07	4.348	70.000
		3.812E-07	4.658	75.000
		1.545E-06	0.5	8.05

ANNUAL AVERAGE = 2.69E-09

K= 1 FIVEXQ(K)= 1.545E-06 FIVEPR(K)= 8.050

FUMIGATION X/Q AT THE BOUNDARY: 5.32E-05

EXPONENTIAL TERM AND FREQUENCIES

8.805E-01	5.200E-01	4.072E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
0.376	3.981	5.032	12.967	65.322	97.183	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 320 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE SSW SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	3.6	0.60	750.	0.	131.	144.4	260.5	0.0	0.000E+00	0.000E+00	2.062E-06			
A	6.0	0.60	750.	0.	131.	144.4	260.5	0.0	0.000E+00	0.000E+00	1.237E-06			
A	8.9	0.26	750.	0.	131.	144.4	260.5	0.0	0.000E+00	0.000E+00	8.360E-07			
A	11.6	0.13	750.	0.	131.	144.4	260.5	0.0	0.000E+00	0.000E+00	6.444E-07			
B	1.7	0.13	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	6.124E-06			
B	3.6	1.52	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	2.858E-06			
B	6.0	0.99	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.715E-06			
B	8.9	0.20	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.159E-06			
B	11.6	0.13	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	8.931E-07			
C	1.7	0.33	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	4.272E-06			
C	3.6	1.46	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06			
C	6.0	1.26	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06			
C	8.9	0.53	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07			
C	11.6	0.07	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	6.230E-07			
C	26.5	0.26	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	2.719E-07			
D	0.2	0.01	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05			
D	1.7	3.84	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06			
D	3.6	13.96	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06			
D	6.0	23.09	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07			
D	8.9	10.19	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07			
D	11.6	1.79	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07			
D	26.5	0.46	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07			
E	0.3	0.02	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06			
E	1.8	2.91	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06			
E	3.9	10.85	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07			
E	6.5	13.30	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07			
E	9.6	2.51	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07			
E	12.5	0.53	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07			
E	28.5	0.07	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08			
F	0.3	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06			
F	1.8	1.26	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07			
F	3.9	2.51	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07			
F	6.5	1.65	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07			
F	9.6	0.07	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07			

G	1.8	0.93	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	1.26	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	0.33	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08

Calculation No. PM-1055 Revision 0

Attachment J

Page 322 of 1411

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

SSW SECTOR BOUNDARY DISTANCE = 750.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	6.124E-06	4.813E-06	4.272E-06	2.858E-06	2.224E-06	2.062E-06	1.994E-06	1.715E-06
0.009	0.029	0.162	0.176	0.507	2.028	5.865	6.461	7.916	8.908
0.00031	0.00104	0.00570	0.00621	0.01788	0.07152	0.20681	0.22780	0.27912	0.31411
1.262E-06	1.237E-06	1.196E-06	1.159E-06	1.038E-06	8.931E-07	8.360E-07	8.082E-07	6.875E-07	6.444E-07
11.819	12.414	13.671	13.870	27.828	27.960	28.225	28.754	30.011	30.143
0.41674	0.43773	0.48205	0.48905	0.98121	0.98587	0.99520	1.01386	1.05818	1.06285
6.230E-07	6.226E-07	5.890E-07	4.207E-07	3.534E-07	3.243E-07	3.208E-07	2.719E-07	2.388E-07	1.925E-07
30.209	53.296	64.145	74.333	87.630	89.416	91.929	92.194	94.708	96.362
1.06518	1.87923	2.26176	2.62097	3.08981	3.15279	3.24142	3.25075	3.33939	3.39770
1.841E-07	1.415E-07	1.301E-07	8.032E-08	6.449E-08	3.010E-08	1.806E-08			
96.891	97.354	97.420	97.486	98.412	99.669	100.000			
3.41636	3.43269	3.43502	3.43736	3.47001	3.51433	3.52599			

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.279
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 0.980

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4) = 2.259
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5) = 3.087

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
2	1	-11.07050	-16.37903	-1.17380
2	2	-13.12558	-17.25929	-1.49139
2	3	-13.77855	-17.77132	-1.71077
2	4	-14.34482	-21.93911	-3.79166
2	5	-14.85564	NUMXQ(K) = 5	
		4.108E-06	0.035	1.000
		2.842E-06	0.106	3.000
		2.367E-06	0.176	5.000
		1.777E-06	0.353	10.000
		1.447E-06	0.529	15.000
		1.243E-06	0.705	20.000
		1.101E-06	0.881	25.000
		9.887E-07	1.058	30.000
		8.940E-07	1.234	35.000
		8.179E-07	1.410	40.000
		7.552E-07	1.587	45.000
		7.024E-07	1.763	50.000
		6.572E-07	1.939	55.000
		6.179E-07	2.116	60.000
		5.767E-07	2.292	65.000
		5.119E-07	2.468	70.000
		4.575E-07	2.644	75.000
		4.114E-07	2.821	80.000
		3.719E-07	2.997	85.000
		1.489E-06	0.5	14.18

ANNUAL AVERAGE = 4.77E-09

K= 2 FIVEXQ(K) = 1.489E-06 FIVEPR(K)=14.180

FUMIGATION X/Q AT THE BOUNDARY: 5.32E-05

EXPONENTIAL TERM AND FREQUENCIES

8.805E-01	5.200E-01	4.072E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
1.588	5.491	8.467	13.973	67.300	97.486	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 324 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE SW SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	3.6	1.73	750.	0.	131.	144.4	260.5	0.0	0.000E+00	0.000E+00	2.062E-06			
A	6.0	1.50	750.	0.	131.	144.4	260.5	0.0	0.000E+00	0.000E+00	1.237E-06			
A	8.9	0.68	750.	0.	131.	144.4	260.5	0.0	0.000E+00	0.000E+00	8.360E-07			
B	1.7	0.15	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	6.124E-06			
B	3.6	1.35	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	2.858E-06			
B	6.0	0.98	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.715E-06			
B	8.9	0.15	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.159E-06			
B	11.6	0.08	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	8.931E-07			
C	1.7	0.90	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	4.272E-06			
C	3.6	2.10	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06			
C	6.0	0.68	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06			
C	8.9	0.30	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07			
D	0.2	0.02	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05			
D	1.7	8.10	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06			
D	3.6	17.86	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06			
D	6.0	18.83	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07			
D	8.9	6.38	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07			
D	11.6	0.98	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07			
D	26.5	0.90	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07			
E	0.3	0.02	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06			
E	1.8	2.70	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06			
E	3.9	11.25	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07			
E	6.5	11.71	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07			
E	9.6	1.95	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07			
E	12.5	0.60	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07			
E	28.5	0.08	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08			
F	0.3	0.02	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06			
F	1.8	1.65	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07			
F	3.9	2.55	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07			
F	6.5	0.98	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07			
F	9.6	0.08	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07			
G	1.8	0.83	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08			
G	3.9	1.65	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08			

G	6.5	0.30	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
---	-----	------	--------	----	------	--------	------	-----	-----------	-----------	-----------

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 326 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

SW SECTOR BOUNDARY DISTANCE = 750.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	6.124E-06	4.813E-06	4.272E-06	2.858E-06	2.224E-06	2.062E-06	1.994E-06	1.715E-06
0.018	0.038	0.188	0.207	1.107	2.458	10.561	12.287	14.388	15.363
0.00057	0.00117	0.00583	0.00642	0.03441	0.07640	0.32831	0.38196	0.44727	0.47759
1.262E-06	1.237E-06	1.196E-06	1.159E-06	1.038E-06	8.931E-07	8.360E-07	8.082E-07	6.875E-07	6.226E-07
18.064	19.565	20.240	20.390	38.248	38.323	38.999	39.299	40.949	59.783
0.56156	0.60822	0.62921	0.63387	1.18901	1.19135	1.21234	1.22167	1.27298	1.85845
5.890E-07	4.207E-07	3.534E-07	3.243E-07	3.208E-07	2.388E-07	1.925E-07	1.841E-07	1.415E-07	1.301E-07
71.037	77.415	89.120	90.096	92.647	94.598	95.573	96.173	97.074	97.149
2.20833	2.40659	2.77047	2.80079	2.88009	2.94074	2.97106	2.98972	3.01771	3.02005
8.032E-08	6.449E-08	3.010E-08	1.806E-08						
97.224	98.049	99.700	100.000						
3.02238	3.04804	3.09935	3.10868						

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.447

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 1.188

Calculation No. PM-1055 Revision 0

Attachment J

Page 327 of 1411

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 2.206
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 2.768

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
3	1	-11.07050	-16.15324	-1.15801
3	2	-13.12558	-17.95599	-1.84752
3	3	-13.77855	-18.93807	-2.28186
3	4	-14.34482	-24.96016	-5.27354
3	5	-14.85564	NUMXQ(K)= 5	
		5.079E-06	0.031	1.000
		3.543E-06	0.093	3.000
		2.964E-06	0.155	5.000
		2.296E-06	0.311	10.000
		1.942E-06	0.466	15.000
		1.613E-06	0.622	20.000
		1.391E-06	0.777	25.000
		1.229E-06	0.933	30.000
		1.105E-06	1.088	35.000
		9.976E-07	1.243	40.000
		8.986E-07	1.399	45.000
		8.171E-07	1.554	50.000
		7.489E-07	1.710	55.000
		6.909E-07	1.865	60.000
		6.409E-07	2.021	65.000
		5.974E-07	2.176	70.000
		5.221E-07	2.332	75.000
		4.518E-07	2.487	80.000
		3.938E-07	2.642	85.000
		1.857E-06	0.5	16.08

ANNUAL AVERAGE = 6.14E-09

K= 3 FIVEXQ(K)= 1.857E-06 FIVEPR(K)=16.084

FUMIGATION X/Q AT THE BOUNDARY: 5.32E-05

EXPONENTIAL TERM AND FREQUENCIES

8.805E-01	5.200E-01	4.072E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
3.902	7.878	10.580	15.851	68.917	97.224	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 328 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE WSW SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	3.6	2.58	750.	0.	131.	144.4	260.5	0.0	0.000E+00	0.000E+00	2.062E-06			
A	6.0	1.92	750.	0.	131.	144.4	260.5	0.0	0.000E+00	0.000E+00	1.237E-06			
A	8.9	1.19	750.	0.	131.	144.4	260.5	0.0	0.000E+00	0.000E+00	8.360E-07			
A	11.6	0.07	750.	0.	131.	144.4	260.5	0.0	0.000E+00	0.000E+00	6.444E-07			
B	1.7	0.59	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	6.124E-06			
B	3.6	1.65	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	2.858E-06			
B	6.0	0.99	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.715E-06			
B	8.9	0.07	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.159E-06			
C	1.7	0.99	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	4.272E-06			
C	3.6	2.44	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06			
C	6.0	1.12	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06			
C	8.9	0.20	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07			
D	0.2	0.02	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05			
D	1.7	7.86	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06			
D	3.6	22.19	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06			
D	6.0	18.36	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07			
D	8.9	4.43	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07			
D	11.6	0.73	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07			
D	26.5	0.13	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07			
E	0.3	0.03	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06			
E	1.8	4.03	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06			
E	3.9	14.46	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07			
E	6.5	6.67	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07			
E	9.6	0.73	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07			
E	12.5	0.26	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07			
E	28.5	0.07	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08			
F	0.3	0.02	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06			
F	1.8	1.72	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07			
F	3.9	1.92	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07			
F	6.5	0.53	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07			
G	1.8	0.66	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08			
G	3.9	1.25	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08			
G	6.5	0.13	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08			

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 329 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

WSW SECTOR BOUNDARY DISTANCE = 750.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	6.124E-06	4.813E-06	4.272E-06	2.858E-06	2.224E-06	2.062E-06	1.994E-06	1.715E-06
0.018	0.046	0.641	0.661	1.651	3.303	11.163	13.739	16.182	17.173
0.00063	0.00164	0.02263	0.02333	0.05832	0.11663	0.39420	0.48517	0.57148	0.60646
1.262E-06	1.237E-06	1.196E-06	1.159E-06	1.038E-06	8.360E-07	8.082E-07	6.875E-07	6.444E-07	6.226E-07
21.202	23.118	24.241	24.307	46.499	47.688	47.887	49.604	49.670	68.032
0.74875	0.81639	0.85604	0.85838	1.64210	1.68409	1.69109	1.75173	1.75407	2.40251
5.890E-07	4.207E-07	3.534E-07	3.243E-07	3.208E-07	2.388E-07	1.925E-07	1.841E-07	1.415E-07	8.032E-08
82.497	86.922	93.593	94.320	96.235	96.962	97.490	97.754	97.886	97.952
2.91333	3.06961	3.30519	3.33085	3.39849	3.42415	3.44281	3.45214	3.45681	3.45914
6.449E-08	3.010E-08	1.806E-08							
98.613	99.868	100.000							
3.48247	3.52678	3.53145							

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.023
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 0.571

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 1.640
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 2.911
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(6)= 3.395

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
4	1	-11.07050	-15.80482	-1.08385
4	2	-12.00323	-16.02928	-1.14785
4	3	-13.12558	-17.30479	-1.65206
4	4	-13.77855	-18.80746	-2.35606
4	5	-14.34482	-31.14406	-8.86921
4	6	-14.95230	NUMXQ(K) = 6	
		5.335E-06	0.035	1.000
		3.721E-06	0.106	3.000
		3.112E-06	0.177	5.000
		2.408E-06	0.353	10.000
		2.055E-06	0.530	15.000
		1.761E-06	0.706	20.000
		1.539E-06	0.883	25.000
		1.375E-06	1.059	30.000
		1.248E-06	1.236	35.000
		1.145E-06	1.413	40.000
		1.060E-06	1.589	45.000
		9.685E-07	1.766	50.000
		8.836E-07	1.942	55.000
		8.117E-07	2.119	60.000
		7.500E-07	2.295	65.000
		6.964E-07	2.472	70.000
		6.495E-07	2.649	75.000
		6.080E-07	2.825	80.000
		5.242E-07	3.002	85.000
		4.187E-07	3.178	90.000
		2.103E-06	0.5	14.16

ANNUAL AVERAGE = 1.04E-08

K= 4 FIVEXQ(K)= 2.103E-06 FIVEPR(K)=14.158

FUMIGATION X/Q AT THE BOUNDARY: 5.32E-05

EXPONENTIAL TERM AND FREQUENCIES

8.805E-01	5.200E-01	4.072E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
5.746	10.502	13.804	17.985	71.702	97.952	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 331 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE W SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)	MEANDER	BLDG	WAKE	USED
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG	WAKE	USED	
AT 131.4 METERS												CA=1292.SQ.METERS				
A	1.7	0.15	750.	0.	131.	144.4	260.5	0.0	0.000E+00	0.000E+00	4.419E-06					
A	3.6	4.26	750.	0.	131.	144.4	260.5	0.0	0.000E+00	0.000E+00	2.062E-06					
A	6.0	2.25	750.	0.	131.	144.4	260.5	0.0	0.000E+00	0.000E+00	1.237E-06					
A	8.9	0.34	750.	0.	131.	144.4	260.5	0.0	0.000E+00	0.000E+00	8.360E-07					
B	1.7	0.24	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	6.124E-06					
B	3.6	2.74	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	2.858E-06					
B	6.0	0.59	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.715E-06					
B	8.9	0.05	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.159E-06					
C	1.7	0.05	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	4.272E-06					
C	3.6	2.45	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06					
C	6.0	0.68	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06					
C	8.9	0.15	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07					
C	11.6	0.05	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	6.230E-07					
D	0.2	0.01	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05					
D	1.7	5.63	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06					
D	3.6	21.28	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06					
D	6.0	16.19	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07					
D	8.9	6.46	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07					
D	11.6	1.57	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07					
D	26.5	0.39	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07					
E	0.3	0.02	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06					
E	1.8	2.94	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06					
E	3.9	13.85	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07					
E	6.5	7.88	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07					
E	9.6	2.84	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07					
E	12.5	0.59	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07					
E	28.5	0.98	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08					
F	0.3	0.02	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06					
F	1.8	1.52	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07					
F	3.9	1.66	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07					
F	6.5	0.64	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07					
F	28.5	0.20	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.375E-08					
G	1.8	0.64	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08					

G	3.9	0.64	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	0.10	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 333 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

W SECTOR BOUNDARY DISTANCE = 750.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	6.124E-06	4.813E-06	4.419E-06	4.272E-06	2.858E-06	2.224E-06	2.062E-06	1.994E-06
0.013	0.034	0.278	0.296	0.442	0.491	3.231	8.857	13.113	15.560
0.00061	0.00160	0.01326	0.01410	0.02110	0.02343	0.15405	0.42229	0.62522	0.74185
1.715E-06	1.262E-06	1.237E-06	1.196E-06	1.159E-06	1.038E-06	8.360E-07	8.082E-07	6.875E-07	6.230E-07
16.147	19.082	21.332	22.017	22.066	43.348	43.690	43.837	45.353	45.402
0.76984	0.90979	1.01708	1.04974	1.05207	2.06672	2.08305	2.09005	2.16235	2.16469
6.226E-07	5.890E-07	4.207E-07	3.534E-07	3.243E-07	3.208E-07	2.388E-07	1.925E-07	1.841E-07	1.415E-07
61.596	75.441	81.899	89.775	91.341	93.004	95.842	96.478	97.065	97.456
2.93675	3.59686	3.90475	4.28029	4.35493	4.43423	4.56952	4.59984	4.62783	4.64649
8.032E-08	6.449E-08	4.375E-08	3.010E-08	1.806E-08					
98.434	99.070	99.266	99.902	100.000					
4.69314	4.72347	4.73280	4.76312	4.76779					

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2) = 0.741
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3) = 2.065

Calculation No. PM-1055 Revision 0

Attachment J

Page 334 of 1411

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (4)= 3.594
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (5)= 4.431

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
5	1	-11.07050	-15.70854	-1.06000
5	2	-13.12558	-17.14195	-1.64824
5	3	-13.77855	-18.57960	-2.35276
5	4	-14.34482	-25.59808	-6.25210
5	5	-14.95230	NUMXQ(K)= 5	
		4.999E-06	0.048	1.000
		3.556E-06	0.143	3.000
		3.001E-06	0.238	5.000
		2.352E-06	0.477	10.000
		2.022E-06	0.715	15.000
		1.713E-06	0.954	20.000
		1.490E-06	1.192	25.000
		1.326E-06	1.430	30.000
		1.198E-06	1.669	35.000
		1.096E-06	1.907	40.000
		1.000E-06	2.146	45.000
		9.012E-07	2.384	50.000
		8.187E-07	2.622	55.000
		7.491E-07	2.861	60.000
		6.895E-07	3.099	65.000
		6.378E-07	3.337	70.000
		5.927E-07	3.576	75.000
		4.980E-07	3.814	80.000
		4.178E-07	4.053	85.000
		3.535E-07	4.291	90.000
		2.311E-06	0.5	10.49

ANNUAL AVERAGE = 1.65E-08

K= 5 FIVEXQ(K)= 2.311E-06 FIVEPR(K)=10.487

FUMIGATION X/Q AT THE BOUNDARY: 5.32E-05

EXPONENTIAL TERM AND FREQUENCIES

8.805E-01	5.200E-01	4.072E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
6.996	10.372	13.992	18.021	69.549	98.630	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 335 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE WNW SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	3.6	2.40	750.	0.	131.	144.4	260.5	0.0	0.000E+00	0.000E+00	2.062E-06			
A	6.0	2.40	750.	0.	131.	144.4	260.5	0.0	0.000E+00	0.000E+00	1.237E-06			
A	8.9	0.16	750.	0.	131.	144.4	260.5	0.0	0.000E+00	0.000E+00	8.360E-07			
A	11.6	0.05	750.	0.	131.	144.4	260.5	0.0	0.000E+00	0.000E+00	6.444E-07			
A	26.5	0.05	750.	0.	131.	144.4	260.5	0.0	0.000E+00	0.000E+00	2.812E-07			
B	3.6	1.58	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	2.858E-06			
B	6.0	1.36	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.715E-06			
B	8.9	0.11	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.159E-06			
B	11.6	0.05	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	8.931E-07			
C	3.6	3.54	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06			
C	6.0	1.42	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06			
C	8.9	0.22	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07			
C	11.6	0.11	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	6.230E-07			
D	0.2	0.01	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05			
D	1.7	4.69	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06			
D	3.6	16.58	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06			
D	6.0	16.79	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07			
D	8.9	7.63	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07			
D	11.6	1.42	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07			
D	26.5	0.11	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07			
E	0.3	0.02	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06			
E	1.8	3.27	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06			
E	3.9	10.91	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07			
E	6.5	14.01	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07			
E	9.6	3.44	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07			
E	12.5	1.15	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07			
E	28.5	0.22	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08			
F	0.3	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06			
F	1.8	1.25	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07			
F	3.9	2.84	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07			
F	6.5	1.31	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07			
F	9.6	0.11	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07			
F	28.5	0.05	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.375E-08			

Calculation No. PM-1055 Revision 0**Attachment J****Page 336 of 1411**

G	1.8	0.27	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	0.33	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	0.11	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 337 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

SITE EXCLUSION BOUNDARY CALCULATIONS:

WNW SECTOR BOUNDARY DISTANCE = 750.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.858E-06	2.224E-06	2.062E-06	1.994E-06	1.715E-06	1.262E-06	1.237E-06
0.011	0.034	0.048	1.630	6.319	8.718	12.263	13.626	16.898	19.297
0.00045	0.00145	0.00207	0.06971	0.27031	0.37294	0.52455	0.58287	0.72282	0.82545
1.196E-06	1.159E-06	1.038E-06	8.931E-07	8.360E-07	8.082E-07	6.875E-07	6.444E-07	6.230E-07	6.226E-07
20.715	20.824	37.401	37.455	37.619	37.837	39.091	39.146	39.255	56.050
0.88610	0.89076	1.59985	1.60218	1.60918	1.61851	1.67216	1.67449	1.67915	2.39757
5.890E-07	4.207E-07	3.534E-07	3.243E-07	3.208E-07	2.812E-07	2.388E-07	1.925E-07	1.841E-07	1.415E-07
66.955	74.589	88.603	90.021	92.857	92.911	96.347	97.655	98.800	98.909
2.86408	3.19063	3.79009	3.85073	3.97203	3.97436	4.12131	4.17729	4.22627	4.23094
1.301E-07	8.032E-08	6.449E-08	4.375E-08	3.010E-08	1.806E-08				
99.018	99.237	99.509	99.564	99.891	100.000				
4.23560	4.24493	4.25659	4.25893	4.27292	4.27759				

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.524
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 1.598

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 2.861
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 3.787

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
6	1	-11.07050	-15.92528	-1.09380
6	2	-13.12558	-17.15561	-1.57447
6	3	-13.77855	-18.77038	-2.32731
6	4	-14.34482	-22.07870	-4.06709
6	5	-14.85564	NUMXQ(K)= 5	
		4.652E-06	0.043	1.000
		3.283E-06	0.128	3.000
		2.761E-06	0.214	5.000
		2.152E-06	0.428	10.000
		1.783E-06	0.642	15.000
		1.514E-06	0.856	20.000
		1.328E-06	1.069	25.000
		1.190E-06	1.283	30.000
		1.082E-06	1.497	35.000
		9.745E-07	1.711	40.000
		8.716E-07	1.925	45.000
		7.874E-07	2.139	50.000
		7.173E-07	2.353	55.000
		6.579E-07	2.567	60.000
		6.070E-07	2.780	65.000
		5.440E-07	2.994	70.000
		4.804E-07	3.208	75.000
		4.270E-07	3.422	80.000
		3.818E-07	3.636	85.000
		2.030E-06	0.5	11.69

ANNUAL AVERAGE = 9.84E-09

K= 6 FIVEXQ(K)= 2.030E-06 FIVEPR(K)=11.689

FUMIGATION X/Q AT THE BOUNDARY: 5.32E-05

EXPONENTIAL TERM AND FREQUENCIES

8.805E-01	5.200E-01	4.072E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
5.071	10.361	13.469	19.045	66.278	99.291	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 339 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE NW SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS			METERS		METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	3.6	0.17	750.	0.			131.		144.4	260.5	0.0	0.000E+00	0.000E+00	2.062E-06
A	6.0	0.87	750.	0.			131.		144.4	260.5	0.0	0.000E+00	0.000E+00	1.237E-06
A	8.9	0.56	750.	0.			131.		144.4	260.5	0.0	0.000E+00	0.000E+00	8.360E-07
B	1.7	0.09	900.	0.			131.		128.1	98.0	0.0	0.000E+00	0.000E+00	6.124E-06
B	3.6	0.43	900.	0.			131.		128.1	98.0	0.0	0.000E+00	0.000E+00	2.858E-06
B	6.0	1.17	900.	0.			131.		128.1	98.0	0.0	0.000E+00	0.000E+00	1.715E-06
B	8.9	0.35	900.	0.			131.		128.1	98.0	0.0	0.000E+00	0.000E+00	1.159E-06
B	11.6	0.04	900.	0.			131.		128.1	98.0	0.0	0.000E+00	0.000E+00	8.931E-07
C	3.6	0.61	2000.	0.			131.		200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06
C	6.0	2.69	2000.	0.			131.		200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06
C	8.9	0.48	2000.	0.			131.		200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07
D	0.2	0.00	4000.	0.			131.		263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05
D	1.7	1.95	4000.	0.			131.		263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06
D	3.6	14.72	4000.	0.			131.		263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06
D	6.0	20.76	4000.	0.			131.		263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07
D	8.9	6.99	4000.	0.			131.		263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07
D	11.6	0.61	4000.	0.			131.		263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07
D	26.5	0.30	4000.	0.			131.		263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07
E	0.3	0.02	9000.	0.			131.		389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06
E	1.8	2.65	9000.	0.			131.		389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06
E	3.9	14.98	9000.	0.			131.		389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07
E	6.5	15.16	9000.	0.			131.		389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07
E	9.6	4.26	9000.	0.			131.		389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07
E	12.5	0.69	9000.	0.			131.		389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07
E	28.5	0.52	9000.	0.			131.		389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08
F	0.3	0.01	90000.	0.			131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06
F	1.8	1.22	90000.	0.			131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07
F	3.9	3.52	90000.	0.			131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07
F	6.5	2.08	90000.	0.			131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07
F	9.6	0.30	90000.	0.			131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07
G	1.8	0.17	90000.	0.			131.		1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	1.22	90000.	0.			131.		1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	0.35	90000.	0.			131.		1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08

G	9.6	0.04	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08
---	-----	------	--------	----	------	--------	------	-----	-----------	-----------	-----------

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 341 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

NW SECTOR BOUNDARY DISTANCE = 750.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	6.124E-06	4.813E-06	2.858E-06	2.224E-06	2.062E-06	1.994E-06	1.715E-06	1.262E-06
0.004	0.023	0.110	0.124	0.558	2.512	2.686	3.294	4.467	7.115
0.00024	0.00125	0.00591	0.00667	0.02999	0.13496	0.14429	0.17694	0.23992	0.38221
1.237E-06	1.196E-06	1.159E-06	1.038E-06	8.931E-07	8.360E-07	8.082E-07	6.875E-07	6.226E-07	5.890E-07
7.984	10.676	11.024	25.744	25.788	26.352	26.830	28.046	48.803	63.784
0.42886	0.57347	0.59213	1.38286	1.38519	1.41551	1.44117	1.50648	2.62143	3.42615
4.207E-07	3.534E-07	3.243E-07	3.208E-07	2.388E-07	1.925E-07	1.841E-07	1.415E-07	1.301E-07	8.032E-08
70.775	85.931	86.538	90.056	94.311	96.396	97.091	97.395	97.698	98.220
3.80169	4.61574	4.64839	4.83733	5.06591	5.17788	5.21520	5.23152	5.24785	5.27584
6.449E-08	3.010E-08	1.806E-08	1.220E-08						
98.393	99.609	99.957	100.000						
5.28517	5.35048	5.36914	5.37148						

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(2)=	0.135
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(4)=	3.423

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 4.612

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
7	1	-11.07050	-16.72216	-1.23509
7	2	-13.01641	-15.88259	-0.95527
7	3	-13.77855	-17.05557	-1.48782
7	4	-14.34482	-21.07552	-3.69421
7	5	-14.85564	NUMXQ(K)= 5	
		3.104E-06	0.054	1.000
		2.111E-06	0.161	3.000
		1.809E-06	0.269	5.000
		1.448E-06	0.537	10.000
		1.261E-06	0.806	15.000
		1.139E-06	1.074	20.000
		1.049E-06	1.343	25.000
		9.482E-07	1.611	30.000
		8.642E-07	1.880	35.000
		7.961E-07	2.149	40.000
		7.394E-07	2.417	45.000
		6.913E-07	2.686	50.000
		6.498E-07	2.954	55.000
		6.136E-07	3.223	60.000
		5.707E-07	3.491	65.000
		5.038E-07	3.760	70.000
		4.478E-07	4.029	75.000
		4.005E-07	4.297	80.000
		3.603E-07	4.566	85.000
		1.483E-06	0.5	9.31

ANNUAL AVERAGE = 4.71E-09

K= 7 FIVEXQ(K)= 1.483E-06 FIVEPR(K)= 9.308

FUMIGATION X/Q AT THE BOUNDARY: 5.32E-05

EXPONENTIAL TERM AND FREQUENCIES

8.805E-01	5.200E-01	4.072E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
1.607	5.385	7.469	14.605	59.944	98.220	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 343 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE NNW SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	3.6	0.09	750.	0.	131.	144.4	260.5	0.0	0.000E+00	0.000E+00	2.062E-06			
A	6.0	0.09	750.	0.	131.	144.4	260.5	0.0	0.000E+00	0.000E+00	1.237E-06			
B	3.6	0.14	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	2.858E-06			
B	6.0	0.37	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.715E-06			
B	8.9	0.37	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.159E-06			
B	11.6	0.05	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	8.931E-07			
C	3.6	0.55	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06			
C	6.0	1.01	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06			
C	8.9	0.46	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07			
C	11.6	0.05	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	6.230E-07			
D	0.2	0.00	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05			
D	1.7	1.61	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06			
D	3.6	11.17	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06			
D	6.0	21.42	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07			
D	8.9	5.42	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07			
D	11.6	0.51	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07			
D	26.5	0.32	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07			
E	0.3	0.02	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06			
E	1.8	2.71	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06			
E	3.9	14.29	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07			
E	6.5	20.36	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07			
E	9.6	7.58	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07			
E	12.5	0.51	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07			
E	28.5	0.09	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08			
F	0.3	0.02	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06			
F	1.8	1.47	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07			
F	3.9	4.14	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07			
F	6.5	3.63	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07			
F	9.6	0.37	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07			
G	1.8	0.41	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08			
G	3.9	0.46	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08			
G	6.5	0.28	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08			
G	9.6	0.05	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08			

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 344 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

NNW SECTOR BOUNDARY DISTANCE = 750.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.858E-06	2.224E-06	2.062E-06	1.994E-06	1.715E-06	1.262E-06	1.237E-06
0.004	0.023	0.040	0.178	1.786	1.878	2.430	2.797	5.509	5.601
0.00018	0.00116	0.00203	0.00902	0.09066	0.09533	0.12332	0.14198	0.27960	0.28426
1.196E-06	1.159E-06	1.038E-06	8.931E-07	8.082E-07	6.875E-07	6.230E-07	6.226E-07	5.890E-07	4.207E-07
6.612	6.980	18.148	18.194	18.653	20.124	20.170	41.587	55.880	61.303
0.33558	0.35424	0.92104	0.92337	0.94670	1.02134	1.02367	2.11063	2.83604	3.11128
3.534E-07	3.243E-07	3.208E-07	2.388E-07	1.925E-07	1.841E-07	1.415E-07	1.301E-07	8.032E-08	6.449E-08
81.662	82.168	86.304	93.887	97.518	98.024	98.345	98.713	98.805	99.219
4.14459	4.17025	4.38017	4.76504	4.94931	4.97497	4.99130	5.00996	5.01462	5.03561
3.010E-08	1.806E-08	1.220E-08							
99.678	99.954	100.000							
5.05894	5.07293	5.07527							

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.123

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 2.833

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 4.141

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
8	1	-11.07050	-17.01333	-1.28404
8	2	-13.12558	-16.07522	-0.97420
8	3	-13.77855	-16.73458	-1.25389
8	4	-14.34482	-20.02675	-2.98127
8	5	-14.85564	NUMXQ(K) = 5	
		2.779E-06	0.051	1.000
		1.873E-06	0.152	3.000
		1.601E-06	0.254	5.000
		1.278E-06	0.508	10.000
		1.111E-06	0.761	15.000
		9.915E-07	1.015	20.000
		8.911E-07	1.269	25.000
		8.147E-07	1.523	30.000
		7.539E-07	1.776	35.000
		7.039E-07	2.030	40.000
		6.618E-07	2.284	45.000
		6.256E-07	2.538	50.000
		5.941E-07	2.791	55.000
		5.366E-07	3.045	60.000
		4.825E-07	3.299	65.000
		4.367E-07	3.553	70.000
		3.975E-07	3.806	75.000
		3.637E-07	4.060	80.000
		1.284E-06	0.5	9.85

ANNUAL AVERAGE = 1.35E-09

K= 8 FIVEXQ(K)= 1.284E-06 FIVEPR(K)= 9.852

FUMIGATION X/Q AT THE BOUNDARY: 5.32E-05

EXPONENTIAL TERM AND FREQUENCIES

8.805E-01	5.200E-01	4.072E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
0.184	2.252	3.171	12.793	53.241	98.805	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 346 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE N SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	6.0	0.28	750.	0.	131.	144.4	260.5	0.0	0.000E+00	0.000E+00	1.237E-06			
A	8.9	0.16	750.	0.	131.	144.4	260.5	0.0	0.000E+00	0.000E+00	8.360E-07			
B	3.6	0.07	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	2.858E-06			
B	6.0	0.58	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.715E-06			
B	8.9	0.72	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.159E-06			
B	11.6	0.12	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	8.931E-07			
B	26.5	0.02	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	3.897E-07			
C	3.6	0.44	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06			
C	6.0	1.68	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06			
C	8.9	1.56	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07			
C	11.6	0.21	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	6.230E-07			
C	26.5	0.02	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	2.719E-07			
D	0.2	0.00	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05			
D	1.7	0.96	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06			
D	3.6	7.00	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06			
D	6.0	16.51	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07			
D	8.9	11.24	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07			
D	11.6	2.31	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07			
D	26.5	0.68	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07			
E	0.3	0.01	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06			
E	1.8	1.63	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06			
E	3.9	10.14	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07			
E	6.5	20.78	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07			
E	9.6	12.03	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07			
E	12.5	1.49	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07			
E	28.5	0.14	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08			
F	0.3	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06			
F	1.8	0.54	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07			
F	3.9	3.13	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07			
F	6.5	3.03	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07			
F	9.6	1.03	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07			
G	1.8	0.40	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08			
G	3.9	0.79	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08			

G	6.5	0.23	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	0.05	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 348 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

N SECTOR BOUNDARY DISTANCE = 750.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.858E-06	2.224E-06	1.994E-06	1.715E-06	1.262E-06	1.237E-06	1.196E-06
0.002	0.014	0.020	0.090	1.046	1.489	2.072	3.705	3.985	5.664
0.00022	0.00138	0.00200	0.00900	0.10463	0.14895	0.20726	0.37054	0.39853	0.56647
1.159E-06	1.038E-06	8.931E-07	8.360E-07	8.082E-07	6.875E-07	6.230E-07	6.226E-07	5.890E-07	4.207E-07
6.387	13.383	13.500	13.663	15.226	15.762	15.972	32.484	42.629	53.870
0.63878	1.33853	1.35020	1.36652	1.52280	1.57645	1.59744	3.24887	4.26352	5.38780
3.897E-07	3.534E-07	3.243E-07	3.208E-07	2.719E-07	2.388E-07	1.925E-07	1.841E-07	1.415E-07	1.301E-07
53.893	74.673	76.981	80.107	80.130	92.164	95.196	96.688	97.365	98.391
5.39013	7.46841	7.69933	8.01189	8.01422	9.21780	9.52103	9.67031	9.73795	9.84058
8.032E-08	6.449E-08	3.010E-08	1.806E-08	1.220E-08					
98.531	98.927	99.720	99.953	100.000					
9.85458	9.89423	9.97354	9.99686	10.00153					

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.566
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 4.260

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 7.465

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
9	1	-11.07050	-16.78728	-1.24404
9	2	-13.63641	-14.77036	-0.44771
9	3	-13.77855	-16.31783	-1.14625
9	4	-14.34482	-17.49364	-1.82936
9	5	-14.85564	NUMXQ(K)= 5	
		2.394E-06	0.100	1.000
		1.564E-06	0.300	3.000
		1.262E-06	0.500	5.000
		1.091E-06	1.000	10.000
		9.857E-07	1.500	15.000
		8.626E-07	2.000	20.000
		7.747E-07	2.500	25.000
		7.075E-07	3.000	30.000
		6.538E-07	3.501	35.000
		6.094E-07	4.001	40.000
		5.621E-07	4.501	45.000
		5.124E-07	5.001	50.000
		4.705E-07	5.501	55.000
		4.345E-07	6.001	60.000
		4.034E-07	6.501	65.000
		3.761E-07	7.001	70.000
		1.263E-06	0.5	5.00

ANNUAL AVERAGE = 3.87E-09

K= 9 FIVEXQ(K)= 1.263E-06 FIVEPR(K)= 4.999

FUMIGATION X/Q AT THE BOUNDARY: 5.32E-05

EXPONENTIAL TERM AND FREQUENCIES

8.805E-01	5.200E-01	4.072E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
0.443	4.361	5.877	13.603	52.296	98.531	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 350 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE NNE SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	3.6	0.08	750.	0.	131.	144.4	260.5	0.0	0.000E+00	0.000E+00	2.062E-06			
A	6.0	0.28	750.	0.	131.	144.4	260.5	0.0	0.000E+00	0.000E+00	1.237E-06			
A	8.9	0.12	750.	0.	131.	144.4	260.5	0.0	0.000E+00	0.000E+00	8.360E-07			
B	3.6	0.16	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	2.858E-06			
B	6.0	0.56	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.715E-06			
B	8.9	0.36	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.159E-06			
B	11.6	0.08	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	8.931E-07			
C	3.6	0.20	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06			
C	6.0	1.47	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06			
C	8.9	0.95	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07			
D	0.2	0.00	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05			
D	1.7	0.91	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06			
D	3.6	7.60	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06			
D	6.0	16.91	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07			
D	8.9	6.60	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07			
D	11.6	0.64	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07			
D	26.5	0.36	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07			
E	0.3	0.02	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06			
E	1.8	2.23	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06			
E	3.9	12.73	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07			
E	6.5	22.95	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07			
E	9.6	9.07	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07			
E	12.5	0.76	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07			
E	28.5	0.16	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08			
F	0.3	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06			
F	1.8	1.27	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07			
F	3.9	5.61	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07			
F	6.5	4.42	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07			
F	9.6	0.91	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07			
F	12.5	0.12	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.003E-07			
G	1.8	0.36	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08			
G	3.9	1.23	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08			
G	6.5	0.84	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08			

G	9.6	0.04	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08
---	-----	------	--------	----	------	--------	------	-----	-----------	-----------	-----------

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 352 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

NNE SECTOR BOUNDARY DISTANCE = 750.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.858E-06	2.224E-06	2.062E-06	1.994E-06	1.715E-06	1.262E-06	1.237E-06
0.002	0.018	0.033	0.192	1.107	1.186	1.385	1.942	4.170	4.448
0.00012	0.00105	0.00191	0.01124	0.06489	0.06956	0.08122	0.11387	0.24450	0.26082
1.196E-06	1.159E-06	1.038E-06	8.931E-07	8.360E-07	8.082E-07	6.875E-07	6.226E-07	5.890E-07	4.207E-07
5.920	6.278	13.876	13.956	14.075	15.030	16.303	33.209	45.939	52.542
0.34713	0.36812	0.81363	0.81830	0.82529	0.88127	0.95592	1.94724	2.69365	3.08085
3.534E-07	3.243E-07	3.208E-07	2.388E-07	1.925E-07	1.841E-07	1.415E-07	1.301E-07	1.003E-07	8.032E-08
75.495	76.132	81.741	90.811	95.226	95.982	96.340	97.255	97.375	97.534
4.42671	4.46403	4.79292	5.32473	5.58364	5.62796	5.64895	5.70260	5.70960	5.71893
6.449E-08	3.010E-08	1.806E-08	1.220E-08						
97.892	99.125	99.960	100.000						
5.73992	5.81223	5.86121	5.86355						

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.001
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 0.347

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 2.691
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(6)= 4.423

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
10	1	-11.07050	-16.86574	-1.22926
10	2	-11.63677	-17.11110	-1.28694
10	3	-13.63641	-14.92951	-0.47893
10	4	-13.77855	-16.64412	-1.19241
10	5	-14.34482	-18.72800	-2.27310
10	6	-14.85564	NUMXQ(K)= 6	
		2.414E-06	0.059	1.000
		1.585E-06	0.176	3.000
		1.285E-06	0.293	5.000
		1.098E-06	0.586	10.000
		1.003E-06	0.880	15.000
		8.815E-07	1.173	20.000
		7.949E-07	1.466	25.000
		7.287E-07	1.759	30.000
		6.758E-07	2.052	35.000
		6.322E-07	2.345	40.000
		5.953E-07	2.639	45.000
		5.416E-07	2.932	50.000
		4.920E-07	3.225	55.000
		4.501E-07	3.518	60.000
		4.142E-07	3.811	65.000
		3.831E-07	4.104	70.000
		3.559E-07	4.398	75.000
		1.127E-06	0.5	8.53

ANNUAL AVERAGE = 2.10E-09

K= 10 FIVEXQ(K)= 1.127E-06 FIVEPR(K)= 8.527

FUMIGATION X/Q AT THE BOUNDARY: 5.32E-05

EXPONENTIAL TERM AND FREQUENCIES

8.805E-01	5.200E-01	4.072E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
0.477	3.103	4.256	16.603	49.623	97.534	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 354 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE NE SECTOR.

STABILITY CLASS	WINDSPEED METER/SEC	FREQUENCY PERCENT	DISTANCE METERS	TERRAIN METERS	HT METERS	EFF METERS	PLUME METERS	HT METERS	SIGMA-Y METERS	SIGMA-Z METERS	MEANDER-SY METERS	** CHI/Q VALUES (SEC/CUBIC METER)
												MEANDER BLDG WAKE USED
												CA=1292.SQ.METERS
A	3.6	0.09	750.	0.	131.	144.4	260.5	0.0	0.000E+00	0.000E+00	2.062E-06	
A	6.0	0.23	750.	0.	131.	144.4	260.5	0.0	0.000E+00	0.000E+00	1.237E-06	
A	8.9	0.09	750.	0.	131.	144.4	260.5	0.0	0.000E+00	0.000E+00	8.360E-07	
B	3.6	0.14	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	2.858E-06	
B	6.0	0.61	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.715E-06	
B	8.9	0.28	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.159E-06	
B	11.6	0.05	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	8.931E-07	
C	3.6	0.33	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06	
C	6.0	1.41	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06	
C	8.9	0.99	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07	
C	11.6	0.19	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	6.230E-07	
C	26.5	0.05	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	2.719E-07	
D	0.2	0.00	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05	
D	1.7	1.50	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06	
D	3.6	7.28	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06	
D	6.0	13.48	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07	
D	8.9	5.92	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07	
D	11.6	0.75	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07	
D	26.5	0.14	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07	
E	0.3	0.02	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06	
E	1.8	2.77	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06	
E	3.9	13.19	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07	
E	6.5	16.62	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07	
E	9.6	10.14	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07	
E	12.5	0.85	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07	
E	28.5	0.09	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08	
F	0.3	0.02	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06	
F	1.8	1.50	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07	
F	3.9	7.32	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07	
F	6.5	7.37	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07	
F	9.6	1.83	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07	
G	1.8	0.28	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08	
G	3.9	1.69	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08	

G	6.5	2.39	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	0.38	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 356 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

NE SECTOR BOUNDARY DISTANCE = 750.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.858E-06	2.224E-06	2.062E-06	1.994E-06	1.715E-06	1.262E-06	1.237E-06
0.003	0.023	0.040	0.181	1.684	1.778	2.106	2.717	5.487	5.722
0.00017	0.00115	0.00201	0.00901	0.08365	0.08831	0.10464	0.13496	0.27258	0.28425
1.196E-06	1.159E-06	1.038E-06	8.931E-07	8.360E-07	8.082E-07	6.875E-07	6.230E-07	6.226E-07	5.890E-07
7.130	7.412	14.689	14.736	14.830	15.816	17.319	17.506	30.981	44.175
0.35422	0.36822	0.72976	0.73209	0.73676	0.78574	0.86038	0.86971	1.53914	2.19458
4.207E-07	3.534E-07	3.243E-07	3.208E-07	2.719E-07	2.388E-07	1.925E-07	1.841E-07	1.415E-07	1.301E-07
50.091	66.711	67.463	74.787	74.834	84.976	92.347	93.192	93.333	95.164
2.48848	3.31419	3.35152	3.71539	3.71772	4.22155	4.58775	4.62974	4.63674	4.72770
8.032E-08	6.449E-08	3.010E-08	1.806E-08	1.220E-08					
95.258	95.540	97.230	99.624	100.000					
4.73237	4.74636	4.83034	4.94929	4.96795					

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (2)= 0.084

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (3)= 0.729

Calculation No. PM-1055 Revision 0

Attachment J

Page 357 of 1411

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 2.192
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 3.712

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
11	1	-11.07050	-17.08419	-1.29417
11	2	-13.01641	-16.43637	-1.08807
11	3	-13.77855	-17.01689	-1.32572
11	4	-14.34482	-19.65802	-2.63609
11	5	-14.95230	NUMXQ(K)= 5	
		2.698E-06	0.050	1.000
		1.842E-06	0.149	3.000
		1.547E-06	0.248	5.000
		1.203E-06	0.497	10.000
		1.027E-06	0.745	15.000
		8.927E-07	0.994	20.000
		7.977E-07	1.242	25.000
		7.258E-07	1.490	30.000
		6.688E-07	1.739	35.000
		6.221E-07	1.987	40.000
		5.771E-07	2.236	45.000
		5.130E-07	2.484	50.000
		4.604E-07	2.732	55.000
		4.164E-07	2.981	60.000
		3.792E-07	3.229	65.000
		3.474E-07	3.478	70.000
		1.200E-06	0.5	10.06

ANNUAL AVERAGE = 1.74E-09

K= 11 FIVEXQ(K)= 1.200E-06 FIVEPR(K)=10.065

FUMIGATION X/Q AT THE BOUNDARY: 5.32E-05

EXPONENTIAL TERM AND FREQUENCIES

8.805E-01	5.200E-01	4.072E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
0.423	3.381	4.460	22.507	51.573	95.258	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 358 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE ENE SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	6.0	0.33	750.	0.	131.	144.4	260.5	0.0	0.000E+00	0.000E+00	1.237E-06			
A	8.9	0.14	750.	0.	131.	144.4	260.5	0.0	0.000E+00	0.000E+00	8.360E-07			
A	11.6	0.09	750.	0.	131.	144.4	260.5	0.0	0.000E+00	0.000E+00	6.444E-07			
A	26.5	0.09	750.	0.	131.	144.4	260.5	0.0	0.000E+00	0.000E+00	2.812E-07			
B	3.6	0.05	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	2.858E-06			
B	6.0	0.38	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.715E-06			
B	8.9	0.89	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.159E-06			
B	11.6	0.09	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	8.931E-07			
B	26.5	0.05	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	3.897E-07			
C	3.6	0.14	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06			
C	6.0	1.22	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06			
C	8.9	1.46	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07			
C	11.6	0.19	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	6.230E-07			
C	26.5	0.05	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	2.719E-07			
D	0.2	0.00	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05			
D	1.7	0.71	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06			
D	3.6	6.02	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06			
D	6.0	9.93	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07			
D	8.9	8.94	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07			
D	11.6	1.03	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07			
D	26.5	0.28	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07			
E	0.3	0.02	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06			
E	1.8	2.54	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06			
E	3.9	8.80	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07			
E	6.5	13.97	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07			
E	9.6	12.75	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07			
E	12.5	1.41	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07			
E	28.5	0.05	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08			
F	0.3	0.02	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06			
F	1.8	1.55	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07			
F	3.9	5.50	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07			
F	6.5	8.33	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07			
F	9.6	5.13	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07			
F	12.5	0.85	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.003E-07			

G	1.8	0.85	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	1.60	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	3.29	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	1.22	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08
G	12.5	0.05	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	9.405E-09

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 360 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1 96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

ENE SECTOR BOUNDARY DISTANCE = 750.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.858E-06	2.224E-06	1.994E-06	1.715E-06	1.262E-06	1.237E-06	1.196E-06
0.002	0.020	0.038	0.085	0.790	0.931	1.308	3.848	4.177	5.400
0.00008	0.00098	0.00186	0.00420	0.03918	0.04618	0.06484	0.19080	0.20713	0.26777
1.159E-06	1.038E-06	8.931E-07	8.360E-07	8.082E-07	6.875E-07	6.444E-07	6.230E-07	6.226E-07	5.890E-07
6.294	12.315	12.409	12.551	14.009	15.561	15.655	15.843	25.769	34.566
0.31209	0.61065	0.61532	0.62232	0.69462	0.77160	0.77626	0.78559	1.27776	1.71394
4.207E-07	3.897E-07	3.534E-07	3.243E-07	3.208E-07	2.812E-07	2.719E-07	2.388E-07	1.925E-07	1.841E-07
43.504	43.551	57.522	58.557	64.061	64.155	64.202	76.950	85.276	86.687
2.15712	2.15945	2.85221	2.90353	3.17643	3.18110	3.18343	3.81554	4.22840	4.29838
1.415E-07	1.301E-07	1.003E-07	8.032E-08	6.449E-08	3.010E-08	1.806E-08	1.220E-08	9.405E-09	
86.970	92.097	92.944	92.991	93.838	95.437	98.730	99.953	100.000	
4.31237	4.56662	4.60860	4.61093	4.65292	4.73222	4.89550	4.95615	4.95848	

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2) = 0.001

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3) = 0.312

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 1.712
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(6)= 3.173

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
12	1	-11.07050	-16.19649	-1.06775
12	2	-11.63677	-17.28756	-1.32325
12	3	-13.66823	-14.98686	-0.48210
12	4	-13.77855	-17.42585	-1.45522
12	5	-14.34482	-19.26643	-2.32456
12	6	-14.95230	NUMXQ(K)= 6	
		2.424E-06	0.050	1.000
		1.582E-06	0.149	3.000
		1.279E-06	0.248	5.000
		1.075E-06	0.496	10.000
		9.364E-07	0.744	15.000
		8.027E-07	0.992	20.000
		7.095E-07	1.240	25.000
		6.396E-07	1.488	30.000
		5.821E-07	1.735	35.000
		5.128E-07	1.983	40.000
		4.576E-07	2.231	45.000
		4.125E-07	2.479	50.000
		3.750E-07	2.727	55.000
		3.432E-07	2.975	60.000
		1.073E-06	0.5	10.08

ANNUAL AVERAGE = 1.76E-09

K= 12 FIVEXQ(K)= 1.073E-06 FIVEPR(K)=10.084

FUMIGATION X/Q AT THE BOUNDARY: 5.32E-05

EXPONENTIAL TERM AND FREQUENCIES

8.805E-01	5.200E-01	4.072E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
0.659	3.716	5.175	26.549	53.458	92.991	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 362 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE E SECTOR.

STABILITY CLASS	WINDSPEED METER/SEC	FREQUENCY PERCENT	DISTANCE METERS	TERRAIN METERS	HT METERS	EFF METERS	PLUME METERS	HT METERS	SIGMA-Y METERS	SIGMA-Z METERS	MEANDER-SY METERS	** CHI/Q VALUES (SEC/CUBIC METER)	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS			
A	3.6	0.03	750.	0.	131.	144.4	260.5	0.0	0.000E+00	0.000E+00	2.062E-06				
A	6.0	0.24	750.	0.	131.	144.4	260.5	0.0	0.000E+00	0.000E+00	1.237E-06				
A	8.9	0.63	750.	0.	131.	144.4	260.5	0.0	0.000E+00	0.000E+00	8.360E-07				
A	11.6	0.42	750.	0.	131.	144.4	260.5	0.0	0.000E+00	0.000E+00	6.444E-07				
A	26.5	0.06	750.	0.	131.	144.4	260.5	0.0	0.000E+00	0.000E+00	2.812E-07				
B	3.6	0.12	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	2.858E-06				
B	6.0	0.63	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.715E-06				
B	8.9	0.81	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.159E-06				
B	11.6	0.36	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	8.931E-07				
B	26.5	0.18	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	3.897E-07				
C	3.6	0.15	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06				
C	6.0	1.25	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06				
C	8.9	1.67	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07				
C	11.6	0.86	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	6.230E-07				
C	26.5	0.39	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	2.719E-07				
D	0.2	0.00	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05				
D	1.7	0.78	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06				
D	3.6	4.21	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06				
D	6.0	8.98	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07				
D	8.9	11.78	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07				
D	11.6	6.71	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07				
D	26.5	2.68	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07				
E	0.3	0.01	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06				
E	1.8	1.61	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06				
E	3.9	5.16	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07				
E	6.5	11.78	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07				
E	9.6	15.99	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07				
E	12.5	2.33	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07				
E	28.5	0.27	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08				
F	0.3	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06				
F	1.8	0.89	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07				
F	3.9	2.54	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07				
F	6.5	5.91	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07				
F	9.6	5.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07				

Calculation No. PM-1055 Revision 0**Attachment J****Page 363 of 1411**

F	12.5	0.72	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.003E-07
G	1.8	0.39	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	1.19	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	2.06	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	1.16	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08
G	12.5	0.03	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	9.405E-09
G	28.5	0.03	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	4.104E-09

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 364 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

E SECTOR BOUNDARY DISTANCE = 750.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.858E-06	2.224E-06	2.062E-06	1.994E-06	1.715E-06	1.262E-06	1.237E-06
0.002	0.013	0.024	0.143	0.918	0.948	1.097	1.724	3.334	3.573
0.00014	0.00103	0.00184	0.01117	0.07182	0.07415	0.08581	0.13480	0.26075	0.27941
1.196E-06	1.159E-06	1.038E-06	8.931E-07	8.360E-07	8.082E-07	6.875E-07	6.444E-07	6.230E-07	6.226E-07
4.826	5.631	9.836	10.194	10.821	12.491	13.386	13.803	14.668	23.646
0.37738	0.44036	0.76924	0.79723	0.84622	0.97684	1.04681	1.07947	1.14711	1.84920
5.890E-07	4.207E-07	3.897E-07	3.534E-07	3.243E-07	3.208E-07	2.812E-07	2.719E-07	2.388E-07	1.925E-07
28.806	40.587	40.766	52.547	59.258	61.793	61.853	62.240	78.227	84.133
2.25273	3.17407	3.18807	4.10942	4.63424	4.83250	4.83716	4.86749	6.11772	6.57956
1.841E-07	1.415E-07	1.301E-07	1.003E-07	8.032E-08	6.449E-08	3.010E-08	1.806E-08	1.220E-08	9.405E-09
86.459	89.143	94.154	94.870	95.138	95.526	96.719	98.777	99.940	99.970
6.76150	6.97143	7.36329	7.41927	7.44026	7.47059	7.56389	7.72483	7.81580	7.81813
4.104E-09									
100.000									
7.82046									

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS

Calculation No. PM-1055 Revision 0

SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

Attachment J

Page 365 of 1411

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (2)= 0.072
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (4)= 2.250
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (5)= 4.829

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
13	1	-11.07050	-17.14626	-1.29563
13	2	-13.01641	-16.19662	-0.99771
13	3	-13.77855	-17.05369	-1.35134
13	4	-14.34482	-17.89612	-1.77160
13	5	-14.95230	NUMXQ(K)= 5	
		2.169E-06	0.078	1.000
		1.553E-06	0.235	3.000
		1.314E-06	0.391	5.000
		1.029E-06	0.782	10.000
		8.389E-07	1.173	15.000
		7.207E-07	1.564	20.000
		6.379E-07	1.955	25.000
		5.714E-07	2.346	30.000
		5.082E-07	2.737	35.000
		4.581E-07	3.128	40.000
		4.171E-07	3.519	45.000
		3.830E-07	3.910	50.000
		3.540E-07	4.301	55.000
		3.290E-07	4.692	60.000
		1.208E-06	0.5	6.39

ANNUAL AVERAGE = 4.19E-09

K= 13 FIVEXQ(K)= 1.208E-06 FIVEPR(K)= 6.393

FUMIGATION X/Q AT THE BOUNDARY: 5.32E-05

EXPONENTIAL TERM AND FREQUENCIES

8.805E-01	5.200E-01	4.072E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
1.372	5.697	7.785	22.857	57.994	95.138	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 366 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE ESE SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	6.0	0.24	750.	0.	131.	144.4	260.5	0.0	0.000E+00	0.000E+00	1.237E-06			
A	8.9	0.24	750.	0.	131.	144.4	260.5	0.0	0.000E+00	0.000E+00	8.360E-07			
A	11.6	0.05	750.	0.	131.	144.4	260.5	0.0	0.000E+00	0.000E+00	6.444E-07			
A	26.5	0.13	750.	0.	131.	144.4	260.5	0.0	0.000E+00	0.000E+00	2.812E-07			
B	3.6	0.08	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	2.858E-06			
B	6.0	0.24	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.715E-06			
B	8.9	0.53	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.159E-06			
B	11.6	0.37	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	8.931E-07			
B	26.5	0.19	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	3.897E-07			
C	3.6	0.13	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06			
C	6.0	0.69	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06			
C	8.9	1.57	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07			
C	11.6	0.80	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	6.230E-07			
C	26.5	0.72	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	2.719E-07			
D	0.2	0.00	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05			
D	1.7	1.01	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06			
D	3.6	2.59	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06			
D	6.0	9.48	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07			
D	8.9	17.99	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07			
D	11.6	11.96	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07			
D	26.5	4.03	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07			
E	0.3	0.01	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06			
E	1.8	0.96	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06			
E	3.9	3.68	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07			
E	6.5	9.45	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07			
E	9.6	15.56	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07			
E	12.5	2.96	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07			
E	28.5	0.32	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08			
F	0.3	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06			
F	1.8	0.75	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07			
F	3.9	1.76	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07			
F	6.5	3.74	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07			
F	9.6	3.68	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07			
F	12.5	0.48	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.003E-07			

G	1.8	0.37	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	0.93	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	1.17	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	1.04	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08
G	12.5	0.05	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	9.405E-09

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 368 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T.

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

ESE SECTOR BOUNDARY DISTANCE = 750.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.858E-06	2.224E-06	1.994E-06	1.715E-06	1.262E-06	1.237E-06	1.196E-06
0.002	0.009	0.018	0.098	1.112	1.246	1.486	2.447	2.687	3.381
0.00020	0.00080	0.00155	0.00855	0.09719	0.10885	0.12984	0.21381	0.23480	0.29545
1.159E-06	1.038E-06	8.931E-07	8.360E-07	8.082E-07	6.875E-07	6.444E-07	6.230E-07	6.226E-07	5.890E-07
3.915	6.504	6.877	7.117	8.692	9.439	9.493	10.294	19.769	23.452
0.34210	0.56836	0.60101	0.62200	0.75962	0.82493	0.82960	0.89957	1.72762	2.04951
4.207E-07	3.897E-07	3.534E-07	3.243E-07	3.208E-07	2.812E-07	2.719E-07	2.388E-07	1.925E-07	1.841E-07
41.441	41.628	51.076	63.034	64.795	64.929	65.649	81.210	84.947	87.909
3.62163	3.63796	4.46367	5.50864	5.66259	5.67425	5.73723	7.09709	7.42365	7.68256
1.415E-07	1.301E-07	1.003E-07	8.032E-08	6.449E-08	3.010E-08	1.806E-08	1.220E-08	9.405E-09	
91.939	95.623	96.103	96.423	96.797	97.731	98.906	99.947	100.000	
8.03477	8.35666	8.39864	8.42663	8.45929	8.54092	8.64356	8.73452	8.73919	

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (2) = 0.097
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (3) = 0.568

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 2.047
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 5.659

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
14	1	-11.07050	-17.00428	-1.28683
14	2	-13.01641	-17.17925	-1.34329
14	3	-13.77855	-16.71889	-1.16145
14	4	-14.34482	-17.04431	-1.32064
14	5	-14.95230	NUMXQ(K)= 5	
		2.315E-06	0.087	1.000
		1.472E-06	0.262	3.000
		1.172E-06	0.437	5.000
		8.670E-07	0.874	10.000
		7.254E-07	1.311	15.000
		6.354E-07	1.748	20.000
		5.687E-07	2.185	25.000
		5.134E-07	2.622	30.000
		4.697E-07	3.059	35.000
		4.340E-07	3.496	40.000
		4.042E-07	3.933	45.000
		3.787E-07	4.370	50.000
		3.567E-07	4.807	55.000
		3.373E-07	5.244	60.000
		1.102E-06	0.5	5.72

ANNUAL AVERAGE = 2.81E-09

K= 14 FIVEXQ(K)= 1.102E-06 FIVEPR(K)= 5.721

FUMIGATION X/Q AT THE BOUNDARY: 5.32E-05

EXPONENTIAL TERM AND FREQUENCIES

8.805E-01	5.200E-01	4.072E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
0.667	4.591	6.005	16.423	63.481	96.423	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 370 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1 96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE SE SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN HT	EFF PLUME HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS						CA=1292.SQ.METERS					
A	6.0	0.04	750.	0.	131.	144.4	260.5	0.0	0.000E+00	0.000E+00	1.237E-06
A	8.9	0.06	750.	0.	131.	144.4	260.5	0.0	0.000E+00	0.000E+00	8.360E-07
A	26.5	0.02	750.	0.	131.	144.4	260.5	0.0	0.000E+00	0.000E+00	2.812E-07
B	3.6	0.08	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	2.858E-06
B	6.0	0.04	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.715E-06
B	8.9	0.19	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.159E-06
B	11.6	0.08	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	8.931E-07
C	3.6	0.06	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06
C	6.0	0.55	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06
C	8.9	0.74	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07
C	11.6	0.59	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	6.230E-07
C	26.5	0.13	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	2.719E-07
D	0.2	0.00	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05
D	1.7	0.76	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06
D	3.6	4.10	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06
D	6.0	11.52	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07
D	8.9	22.08	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07
D	11.6	11.54	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07
D	26.5	3.91	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07
E	0.3	0.01	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06
E	1.8	0.83	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06
E	3.9	3.61	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07
E	6.5	11.03	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07
E	9.6	13.83	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07
E	12.5	1.89	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07
E	28.5	0.13	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08
F	0.3	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06
F	1.8	0.55	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07
F	3.9	2.00	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07
F	6.5	3.78	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07
F	9.6	1.91	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07
G	1.8	0.28	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	1.49	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08

G	6.5	1.95	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	0.19	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 372 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T.

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

SE SECTOR BOUNDARY DISTANCE = 750.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.
THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.
THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.858E-06	2.224E-06	1.994E-06	1.715E-06	1.262E-06	1.237E-06	1.196E-06
0.002	0.008	0.014	0.099	0.864	0.928	0.970	1.799	1.841	2.394
0.00019	0.00084	0.00154	0.01087	0.09484	0.10184	0.10650	0.19747	0.20213	0.26278
1.159E-06	1.038E-06	8.931E-07	8.360E-07	8.082E-07	6.875E-07	6.230E-07	6.226E-07	5.890E-07	4.207E-07
2.585	6.685	6.770	6.834	7.578	8.130	8.725	20.241	23.853	45.928
0.28377	0.73395	0.74328	0.75028	0.83192	0.89256	0.95787	2.22210	2.61863	5.04212
3.534E-07	3.243E-07	3.208E-07	2.812E-07	2.719E-07	2.388E-07	1.925E-07	1.841E-07	1.415E-07	1.301E-07
56.955	68.491	70.489	70.510	70.637	84.469	88.251	90.142	94.051	95.963
6.25270	7.51926	7.73852	7.74085	7.75485	9.27332	9.68851	9.89611	10.32529	10.53522
8.032E-08	6.449E-08	3.010E-08	1.806E-08	1.220E-08					
96.091	96.367	97.854	99.809	100.000					
10.54921	10.57954	10.74281	10.95741	10.97840					

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.095
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 0.733

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4) = 5.038
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5) = 7.735

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
15	1	-11.07050	-17.00308	-1.28344
15	2	-13.01641	-16.57320	-1.14505
15	3	-13.77855	-16.53477	-1.12930
15	4	-14.68142	-16.72066	-1.24258
15	5	-14.95230	NUMXQ(K) = 5	
		2.115E-06	0.110	1.000
		1.425E-06	0.329	3.000
		1.168E-06	0.549	5.000
		8.769E-07	1.098	10.000
		7.334E-07	1.647	15.000
		6.419E-07	2.196	20.000
		5.765E-07	2.745	25.000
		5.264E-07	3.294	30.000
		4.864E-07	3.842	35.000
		4.533E-07	4.391	40.000
		4.254E-07	4.940	45.000
		3.995E-07	5.489	50.000
		3.765E-07	6.038	55.000
		3.563E-07	6.587	60.000
		3.384E-07	7.136	65.000
		3.223E-07	7.685	70.000
		1.212E-06	0.5	4.55

ANNUAL AVERAGE = 1.30E-09

K= 15 FIVEXQ(K) = 1.212E-06 FIVEPR(K) = 4.554

FUMIGATION X/Q AT THE BOUNDARY: 5.32E-05

EXPONENTIAL TERM AND FREQUENCIES

8.805E-01	5.200E-01	4.072E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
0.127	2.210	2.613	10.863	64.767	96.091	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 374 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE SSE SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q	VALUES	(SEC/CUBIC METER)	
CLASS	METER/SEC	PERCENT	METERS	METERS			METERS		METERS	METERS	METERS	MEANDER	BLDG	WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS			
A	3.6	0.02	750.	0.			131.		144.4	260.5	0.0	0.000E+00	0.000E+00		2.062E-06
A	6.0	0.17	750.	0.			131.		144.4	260.5	0.0	0.000E+00	0.000E+00		1.237E-06
A	8.9	0.32	750.	0.			131.		144.4	260.5	0.0	0.000E+00	0.000E+00		8.360E-07
A	11.6	0.02	750.	0.			131.		144.4	260.5	0.0	0.000E+00	0.000E+00		6.444E-07
A	26.5	0.02	750.	0.			131.		144.4	260.5	0.0	0.000E+00	0.000E+00		2.812E-07
B	3.6	0.06	900.	0.			131.		128.1	98.0	0.0	0.000E+00	0.000E+00		2.858E-06
B	6.0	0.48	900.	0.			131.		128.1	98.0	0.0	0.000E+00	0.000E+00		1.715E-06
B	8.9	0.71	900.	0.			131.		128.1	98.0	0.0	0.000E+00	0.000E+00		1.159E-06
B	11.6	0.11	900.	0.			131.		128.1	98.0	0.0	0.000E+00	0.000E+00		8.931E-07
C	3.6	0.48	2000.	0.			131.		200.0	114.9	0.0	0.000E+00	0.000E+00		1.994E-06
C	6.0	2.16	2000.	0.			131.		200.0	114.9	0.0	0.000E+00	0.000E+00		1.196E-06
C	8.9	2.01	2000.	0.			131.		200.0	114.9	0.0	0.000E+00	0.000E+00		8.082E-07
C	11.6	0.37	2000.	0.			131.		200.0	114.9	0.0	0.000E+00	0.000E+00		6.230E-07
D	0.2	0.00	4000.	0.			131.		263.4	78.0	0.0	0.000E+00	0.000E+00		1.556E-05
D	1.7	1.08	4000.	0.			131.		263.4	78.0	0.0	0.000E+00	0.000E+00		2.224E-06
D	3.6	8.31	4000.	0.			131.		263.4	78.0	0.0	0.000E+00	0.000E+00		1.038E-06
D	6.0	20.04	4000.	0.			131.		263.4	78.0	0.0	0.000E+00	0.000E+00		6.226E-07
D	8.9	19.82	4000.	0.			131.		263.4	78.0	0.0	0.000E+00	0.000E+00		4.207E-07
D	11.6	5.23	4000.	0.			131.		263.4	78.0	0.0	0.000E+00	0.000E+00		3.243E-07
D	26.5	1.36	4000.	0.			131.		263.4	78.0	0.0	0.000E+00	0.000E+00		1.415E-07
E	0.3	0.01	9000.	0.			131.		389.6	74.2	0.0	0.000E+00	0.000E+00		8.835E-06
E	1.8	0.73	9000.	0.			131.		389.6	74.2	0.0	0.000E+00	0.000E+00		1.262E-06
E	3.9	4.38	9000.	0.			131.		389.6	74.2	0.0	0.000E+00	0.000E+00		5.890E-07
E	6.5	11.10	9000.	0.			131.		389.6	74.2	0.0	0.000E+00	0.000E+00		3.534E-07
E	9.6	10.11	9000.	0.			131.		389.6	74.2	0.0	0.000E+00	0.000E+00		2.388E-07
E	12.5	0.93	9000.	0.			131.		389.6	74.2	0.0	0.000E+00	0.000E+00		1.841E-07
E	28.5	0.22	9000.	0.			131.		389.6	74.2	0.0	0.000E+00	0.000E+00		8.032E-08
F	0.3	0.01	90000.	0.			131.		1000.0	92.1	0.0	0.000E+00	0.000E+00		4.813E-06
F	1.8	0.48	90000.	0.			131.		1000.0	92.1	0.0	0.000E+00	0.000E+00		6.875E-07
F	3.9	2.09	90000.	0.			131.		1000.0	92.1	0.0	0.000E+00	0.000E+00		3.208E-07
F	6.5	2.72	90000.	0.			131.		1000.0	92.1	0.0	0.000E+00	0.000E+00		1.925E-07
F	9.6	0.69	90000.	0.			131.		1000.0	92.1	0.0	0.000E+00	0.000E+00		1.301E-07
F	12.5	0.11	90000.	0.			131.		1000.0	92.1	0.0	0.000E+00	0.000E+00		1.003E-07

Calculation No. PM-1055 Revision 0**Attachment J****Page 375 of 1411**

G	1.8	0.41	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	1.27	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	1.84	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	0.11	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08
G	28.5	0.02	90000.	0.	131.	1000 0	46.0	0.0	0.000E+00	0.000E+00	4.104E-09

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 376 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

SSE SECTOR BOUNDARY DISTANCE = 750.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.
THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.
THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.858E-06	2.224E-06	2.062E-06	1.994E-06	1.715E-06	1.262E-06	1.237E-06
0.002	0.008	0.013	0.078	1.158	1.179	1.654	2.130	2.864	3.037
0.00026	0.00083	0.00142	0.00842	0.12504	0.12738	0.17869	0.23001	0.30931	0.32797
1.196E-06	1.159E-06	1.038E-06	8.931E-07	8.360E-07	8.082E-07	6.875E-07	6.444E-07	6.230E-07	6.226E-07
5.196	5.909	14.223	14.331	14.655	16.663	17.138	17.160	17.527	37.568
0.56123	0.63820	1.53622	1.54788	1.58287	1.79980	1.85111	1.85344	1.89310	4.05768
5.890E-07	4.207E-07	3.534E-07	3.243E-07	3.208E-07	2.812E-07	2.388E-07	1.925E-07	1.841E-07	1.415E-07
41.951	61.776	72.876	78.102	80.197	80.219	90.325	93.046	93.975	95.335
4.53118	6.67244	7.87136	8.43583	8.66208	8.66442	9.75604	10.04994	10.15024	10.29718
1.301E-07	1.003E-07	8.032E-08	6.449E-08	3.010E-08	1.806E-08	1.220E-08	4.104E-09		
96.026	96.134	96.350	96.761	98.035	99.870	99.978	100.000		
10.37183	10.38349	10.40681	10.45113	10.58875	10.78701	10.79868	10.80101		

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.179

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 4.528

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 6.669

K	I	XQSAVE(K, I)	XQINT(K, I)	XQSLOP(K, I)
16	1	-11.07050	-16.77701	-1.25313
16	2	-13.12558	-15.65308	-0.86741
16	3	-13.77855	-16.39015	-1.20848
16	4	-14.34482	-17.31894	-1.75724
16	5	-14.68142	NUMXQ(K) = 5	
		2.417E-06	0.108	1.000
		1.689E-06	0.324	3.000
		1.453E-06	0.540	5.000
		1.168E-06	1.080	10.000
		1.011E-06	1.620	15.000
		8.773E-07	2.160	20.000
		7.822E-07	2.700	25.000
		7.099E-07	3.240	30.000
		6.525E-07	3.780	35.000
		6.053E-07	4.320	40.000
		5.553E-07	4.860	45.000
		5.073E-07	5.401	50.000
		4.668E-07	5.941	55.000
		4.319E-07	6.481	60.000
		1.487E-06	0.5	4.63

ANNUAL AVERAGE = 4.25E-09

K= 16 FIVEXQ(K)= 1.487E-06 FIVEPR(K)= 4.629

FUMIGATION X/Q AT THE BOUNDARY: 5.32E-05

EXPONENTIAL TERM AND FREQUENCIES

8.805E-01	5.200E-01	4.072E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
0.561	5.572	6.932	13.028	68.876	96.350	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 378 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE ALL SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	1.7	0.01	750.	0.	131.	144.4	260.5	0.0	0.000E+00	0.000E+00	4.419E-06			
A	3.6	0.51	750.	0.	131.	144.4	260.5	0.0	0.000E+00	0.000E+00	2.062E-06			
A	6.0	0.53	750.	0.	131.	144.4	260.5	0.0	0.000E+00	0.000E+00	1.237E-06			
A	8.9	0.28	750.	0.	131.	144.4	260.5	0.0	0.000E+00	0.000E+00	8.360E-07			
A	11.6	0.06	750.	0.	131.	144.4	260.5	0.0	0.000E+00	0.000E+00	6.444E-07			
A	26.5	0.03	750.	0.	131.	144.4	260.5	0.0	0.000E+00	0.000E+00	2.812E-07			
B	1.7	0.05	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	6.124E-06			
B	3.6	0.47	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	2.858E-06			
B	6.0	0.54	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.715E-06			
B	8.9	0.44	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.159E-06			
B	11.6	0.12	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	8.931E-07			
B	26.5	0.03	900.	0.	131.	128.1	98.0	0.0	0.000E+00	0.000E+00	3.897E-07			
C	1.7	0.08	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	4.272E-06			
C	3.6	0.77	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06			
C	6.0	1.33	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06			
C	8.9	1.04	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07			
C	11.6	0.30	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	6.230E-07			
C	26.5	0.13	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	2.719E-07			
D	0.2	0.00	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05			
D	1.7	2.07	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06			
D	3.6	9.39	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06			
D	6.0	15.72	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07			
D	8.9	12.23	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07			
D	11.6	4.24	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07			
D	26.5	1.39	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07			
E	0.3	0.01	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06			
E	1.8	1.97	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06			
E	3.9	8.90	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07			
E	6.5	13.85	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07			
E	9.6	9.53	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07			
E	12.5	1.29	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07			
E	28.5	0.23	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08			
F	0.3	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06			
F	1.8	1.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07			

Calculation No. PM-1055 Revision 0**Attachment J****Page 379 of 1411**

F	3.9	3.14	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07
F	6.5	3.52	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07
F	9.6	1.55	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07
F	12.5	0.16	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.003E-07
F	28.5	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.375E-08
G	1.8	0.43	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	1.17	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	1.14	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	0.31	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08
G	12.5	0.01	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	9.405E-09
G	28.5	0.00	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	4.104E-09

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 380 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

DIRECTION-INDEPENDENT (S.R.P 2.3.4) MODEL.

MINIMUM BOUNDARY DISTANCE = 750.0 METERS.

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	6.124E-06	4.813E-06	4.419E-06	4.272E-06	2.858E-06	2.224E-06	2.062E-06	1.994E-06
0.005	0.019	0.065	0.077	0.084	0.161	0.632	2.699	3.212	3.977
0.00467	0.01866	0.06531	0.07697	0.08397	0.16094	0.63211	2.69873	3.21189	3.97695
1.715E-06	1.262E-06	1.237E-06	1.196E-06	1.159E-06	1.038E-06	8.931E-07	8.360E-07	8.082E-07	6.875E-07
4.520	6.487	7.019	8.348	8.789	18.180	18.301	18.579	19.621	20.631
4.52043	6.48675	7.01857	8.34811	8.78895	18.17970	18.30099	18.57856	19.62120	20.63118
6.444E-07	6.230E-07	6.226E-07	5.890E-07	4.207E-07	3.897E-07	3.534E-07	3.243E-07	3.208E-07	2.812E-07
20.689	20.993	36.712	45.608	57.837	57.872	71.718	75.959	79.101	79.129
20.68950	20.99273	36.71161	45.60785	57.83728	57.87226	71.71813	75.95866	79.10057	79.12856
2.719E-07	2.388E-07	1.925E-07	1.841E-07	1.415E-07	1.301E-07	1.003E-07	8.032E-08	6.449E-08	4.375E-08
79.254	88.781	92.298	93.593	94.980	96.534	96.695	96.923	97.357	97.369
79.25452	88.78054	92.29799	93.59254	94.98039	96.53386	96.69480	96.92339	97.35724	97.36890
3.010E-08	1.806E-08	1.220E-08	9.405E-09	4.104E-09					
98.542	99.678	99.986	99.995	100.000					
98.54216	99.67810	99.98599	99.99532	99.99998					

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS

Calculation No. PM-1055 Revision 0**Attachment J****Page 381 of 1411**

SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

3.444E-06	1.000	1.000
2.251E-06	3.000	3.000
1.833E-06	5.000	5.000
1.384E-06	10.000	10.000
1.145E-06	15.000	15.000
9.895E-07	20.000	20.000
8.788E-07	25.000	25.000
7.900E-07	30.000	30.000
7.158E-07	35.000	35.000
6.518E-07	40.000	40.000
5.954E-07	45.000	45.000
5.477E-07	50.000	50.000
5.042E-07	55.000	55.000
4.635E-07	60.000	60.000
4.248E-07	65.000	65.000
3.875E-07	70.000	70.000
3.509E-07	75.000	75.000

1.833E-06	5.0	5.00
-----------	-----	------

K= 17 FIVEXQ(K) = 1.833E-06 FIVEPR(K) = 5.000

FUMIGATION X/Q AT THE BOUNDARY: 5.32E-05

EXPONENTIAL TERM AND FREQUENCIES

8.805E-01	5.200E-01	4.072E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
1.416	5.059	6.718	16.125	61.163	96.935	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 382 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

FIVE PERCENT OVERALL SITE LIMIT

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED:

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	6.124E-06	4.813E-06	4.419E-06	4.272E-06	2.858E-06	2.224E-06	2.062E-06	1.994E-06
0.005	0.019	0.065	0.077	0.084	0.161	0.632	2.699	3.212	3.977
0.00467	0.01866	0.06531	0.07697	0.08397	0.16094	0.63211	2.69873	3.21189	3.97696
1.715E-06	1.262E-06	1.237E-06	1.196E-06	1.159E-06	1.038E-06	8.931E-07	8.360E-07	8.082E-07	6.875E-07
4.520	6.487	7.019	8.348	8.789	18.180	18.301	18.579	19.621	20.631
4.52043	6.48675	7.01857	8.34811	8.78895	18.17970	18.30099	18.57857	19.62120	20.63118
6.444E-07	6.230E-07	6.226E-07	5.890E-07	4.207E-07	3.897E-07	3.534E-07	3.243E-07	3.208E-07	2.812E-07
20.689	20.993	36.712	45.608	57.837	57.872	71.718	75.959	79.101	79.129
20.68950	20.99273	36.71161	45.60786	57.83729	57.87227	71.71814	75.95866	79.10059	79.12858
2.719E-07	2.388E-07	1.925E-07	1.841E-07	1.415E-07	1.301E-07	1.003E-07	8.032E-08	6.449E-08	4.375E-08
79.255	88.781	92.298	93.593	94.980	96.534	96.695	96.923	97.357	97.369
79.25454	88.78056	92.29800	93.59257	94.98042	96.53387	96.69482	96.92341	97.35725	97.36891
3.010E-08	1.806E-08	1.220E-08	9.405E-09	4.104E-09					
98.542	99.678	99.986	99.995	100.000					
98.54217	99.67809	99.98599	99.99532	99.99999					

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS

Calculation No. PM-1055 Revision 0

SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

Attachment J

Page 383 of 1411

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
18	1	-11.07050	-14.79905	-0.95422
18	2	-13.12558	-14.48027	-0.77245
18	3	-13.77855	-14.42288	-0.70928
18	4	-14.34482	-14.41751	-0.66046
18	5	-14.95230	NUMXQ(K) = 5	
		3.444E-06	1.000	1.000
		2.251E-06	3.000	3.000
		1.833E-06	5.000	5.000
		1.384E-06	10.000	10.000
		1.145E-06	15.000	15.000
		9.895E-07	20.000	20.000
		8.788E-07	25.000	25.000
		7.900E-07	30.000	30.000
		7.158E-07	35.000	35.000
		6.518E-07	40.000	40.000
		5.954E-07	45.000	45.000
		5.477E-07	50.000	50.000
		5.042E-07	55.000	55.000
		4.635E-07	60.000	60.000
		4.248E-07	65.000	65.000
		3.875E-07	70.000	70.000
		3.509E-07	75.000	75.000
		1.833E-06	5.0	5.00

K= 18 FIVEXQ(K) = 1.833E-06 FIVEPR(K) = 5.000

K	HIGHPR	PR	GRNDVT(K)
1	-2.92313	0.17327	6.21119
2	-1.90869	2.81507	3.52599
3	-2.74220	0.30515	3.10868
4	-2.65850	0.39245	3.53145
5	-2.57624	0.49942	4.76778
6	-2.69478	0.35218	4.27759
7	-3.03170	0.12160	5.37148
8	-3.14289	0.08366	5.07527
9	-3.06225	0.10985	10.00153
10	-3.21178	0.06596	5.86355
11	-3.17304	0.07544	4.96796
12	-3.25699	0.05631	4.95848
13	-3.21736	0.06469	7.82046
14	-3.12904	0.08770	8.73919
15	-3.13636	0.08554	10.97840
16	-3.03183	0.12155	10.80101

K	HOURS (K)	TOTHR
1	15.17851	15.17851
2	246.60040	261.77900
3	26.73079	288.50970

4	34.37904	322.88880
5	43.74879	366.63760
6	30.85097	397.48850
7	10.65211	408.14060
8	7.32819	415.46880
9	9.62246	425.09130
10	5.77849	430.86980
11	6.60816	437.47790
12	4.93263	442.41050
13	5.66727	448.07780
14	7.68220	455.76000
15	7.49318	463.25320
16	10.64741	473.90060

K	FIVEXQ	SVANN	SLTIME	TIMINT	I	TIME	XQT
1	1.545E-06	2.689E-09	-0.7577	-12.8553	1	8.0	-14.43093
					2	16.0	-14.95616
					3	72.0	-16.09585
					4	624.0	-17.73218
2	1.489E-06	4.766E-09	-0.6851	-12.9422	1	8.0	-14.36689
					2	16.0	-14.84178
					3	72.0	-15.87224
					4	624.0	-17.35174
3	1.857E-06	6.142E-09	-0.6812	-12.7242	1	8.0	-14.14066
					2	16.0	-14.61283
					3	72.0	-15.63739
					4	624.0	-17.10840
4	2.103E-06	1.040E-08	-0.6332	-12.6333	1	8.0	-13.94991
					2	16.0	-14.38879
					3	72.0	-15.34111
					4	624.0	-16.70842
5	2.311E-06	1.651E-08	-0.5894	-12.5692	1	8.0	-13.79477
					2	16.0	-14.20328
					3	72.0	-15.08973
					4	624.0	-16.36244
6	2.030E-06	9.841E-09	-0.6356	-12.6669	1	8.0	-13.98850
					2	16.0	-14.42904
					3	72.0	-15.38500
					4	624.0	-16.75751
7	1.483E-06	4.709E-09	-0.6860	-12.9461	1	8.0	-14.37259
					2	16.0	-14.84809
					3	72.0	-15.87989
					4	624.0	-17.36130
8	1.284E-06	1.350E-09	-0.8178	-12.9986	1	8.0	-14.69917
					2	16.0	-15.26603

Calculation No. PM-1055 Revision 0

Attachment J

Page 385 of 1411

9	1.263E-06	3.865E-09	-0.6904	-13.1038	3	72.0	-16.49608
					4	624.0	-18.26213
					1	8.0	-14.53943
					2	16.0	-15.01797
10	1.127E-06	2.100E-09	-0.7496	-13.1761	3	72.0	-16.05637
					4	624.0	-17.54725
					1	8.0	-14.73486
					2	16.0	-15.25446
11	1.200E-06	1.742E-09	-0.7794	-13.0930	3	72.0	-16.38195
					4	624.0	-18.00075
					1	8.0	-14.71368
					2	16.0	-15.25390
12	1.073E-06	1.755E-09	-0.7652	-13.2145	3	72.0	-16.42613
					4	624.0	-18.10915
					1	8.0	-14.80558
					2	16.0	-15.33594
13	1.208E-06	4.193E-09	-0.6754	-13.1581	3	72.0	-16.48679
					4	624.0	-18.13912
					1	8.0	-14.56264
					2	16.0	-15.03082
14	1.102E-06	2.809E-09	-0.7122	-13.2249	3	72.0	-16.04674
					4	624.0	-17.50534
					1	8.0	-14.70595
					2	16.0	-15.19962
15	1.212E-06	1.297E-09	-0.8157	-13.0579	3	72.0	-16.27084
					4	624.0	-17.80885
					1	8.0	-14.75408
					2	16.0	-15.31949
16	1.487E-06	4.248E-09	-0.6987	-12.9341	3	72.0	-16.54637
					4	624.0	-18.30787
					1	8.0	-14.38699
					2	16.0	-14.87127
17	1.833E-06	1.651E-08	-0.5617	-12.8201	3	72.0	-15.92212
					4	624.0	-17.43089
					1	8.0	-13.98815
					2	16.0	-14.37751
18	1.833E-06	1.651E-08	-0.5617	-12.8201	3	72.0	-15.22240
					4	624.0	-16.43545
					1	8.0	-13.98815
					2	16.0	-14.37751

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 386 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

RELATIVE CONCENTRATION (X/Q) VALUES (SEC/CUBIC METER)

VERSUS

AVERAGING TIME

HOURS PER YEAR MAX

0-2 HR X/Q IS

EXCEEDED

DOWNWIND DISTANCE									DOWNWIND
SECTOR	(METERS)	0-2 HOURS	0-8 HOURS	8-24 HOURS	1-4 DAYS	4-30 DAYS	ANNUAL AVERAGE	IN SECTOR	SECTOR
S	750.	1.55E-06	5.40E-07	3.20E-07	1.02E-07	1.99E-08	2.69E-09	15.2	S
SSW	750.	1.49E-06	5.76E-07	3.58E-07	1.28E-07	2.91E-08	4.77E-09	246.6	SSW
SW	750.	1.86E-06	7.22E-07	4.51E-07	1.62E-07	3.71E-08	6.14E-09	26.7	SW
WSW	750.	2.10E-06	8.74E-07	5.64E-07	2.17E-07	5.54E-08	1.04E-08	34.4	WSW
W	750.	2.31E-06	1.02E-06	6.79E-07	2.80E-07	7.83E-08	1.65E-08	43.7	W
WNW	750.	2.03E-06	8.41E-07	5.41E-07	2.08E-07	5.28E-08	9.84E-09	30.9	WNW
NW	750.	1.48E-06	5.73E-07	3.56E-07	1.27E-07	2.88E-08	4.71E-09	10.7	NW
NNW	750.	1.28E-06	4.13E-07	2.34E-07	6.85E-08	1.17E-08	1.35E-09	7.3	NNW
N	750.	1.26E-06	4.85E-07	3.00E-07	1.06E-07	2.40E-08	3.87E-09	9.6	N
NNE	750.	1.13E-06	3.99E-07	2.37E-07	7.68E-08	1.52E-08	2.10E-09	5.8	NNE
NE	750.	1.20E-06	4.07E-07	2.37E-07	7.35E-08	1.37E-08	1.74E-09	6.6	NE
ENE	750.	1.07E-06	3.72E-07	2.19E-07	6.92E-08	1.33E-08	1.76E-09	4.9	ENE
E	750.	1.21E-06	4.74E-07	2.97E-07	1.07E-07	2.50E-08	4.19E-09	5.7	E
ESE	750.	1.10E-06	4.10E-07	2.51E-07	8.58E-08	1.84E-08	2.81E-09	7.7	ESE
SE	750.	1.21E-06	3.91E-07	2.22E-07	6.52E-08	1.12E-08	1.30E-09	7.5	SE
SSE	750.	1.49E-06	5.65E-07	3.48E-07	1.22E-07	2.69E-08	4.25E-09	10.6	SSE
MAX X/Q		2.31E-06					TOTAL HOURS AROUND SITE:	473.9	
SRP 2.3.4	750.	1.83E-06	8.41E-07	5.70E-07	2.45E-07	7.28E-08	1.65E-08		
SITE LIMIT		1.83E-06	8.41E-07	5.70E-07	2.45E-07	7.28E-08	1.65E-08		

THE FIVE-PERCENT-FOR-THE-ENTIRE-SITE X/Q IS LIMITING.

X/Q VALUES (SEC/CUBIC METER) FOR FUMIGATION AT THE BOUNDARY:

DOWNWIND DISTANCE FUMIGATION

SECTOR	(METERS)	X/Q
S	750.	5.32E-05
SSW	750.	5.32E-05
SW	750.	5.32E-05
WSW	750.	5.32E-05
W	750.	5.32E-05
WNW	750.	5.32E-05
NW	750.	5.32E-05
NNW	750.	5.32E-05
N	750.	5.32E-05
NNE	750.	5.32E-05
NE	750.	5.32E-05
ENE	750.	5.32E-05
E	750.	5.32E-05

Calculation No. PM-1055 Revision 0**Attachment J****Page 387 of 1411**

ESE	750.	5.32E-05
SE	750.	5.32E-05
SSE	750.	5.32E-05

****NOTE**:** VALUES ON THIS PAGE ARE APPROXIMATIONS ONLY.
CHECK THE REASONABLENESS OF THE ENVELOPES
COMPUTED FOR THE 0-2 HOUR VALUES. FOR ANY
FAULTY ENVELOPES, ADJUST THE ABOVE VALUES.

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 388 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1 96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE S SECTOR.

STABILITY CLASS	WINDSPEED METER/SEC	FREQUENCY PERCENT	DISTANCE METERS	TERRAIN METERS	HT METERS	EFF PLUME METERS	HT METERS	SIGMA-Y METERS	SIGMA-Z METERS	MEANDER-SY METERS	** CHI/Q VALUES (SEC/CUBIC METER)	
											MEANDER	BLDG WAKE
											CA=1292.SQ.METERS	USED
A	3.6	0.23	1000.	0.	131.	187.3	449.8	0.0	0.000E+00	0.000E+00	1.002E-06	
A	8.9	0.08	1000.	0.	131.	187.3	449.8	0.0	0.000E+00	0.000E+00	4.063E-07	
A	11.6	0.08	1000.	0.	131.	187.3	449.8	0.0	0.000E+00	0.000E+00	3.132E-07	
B	3.6	0.49	1000.	0.	131.	140.9	110.2	0.0	0.000E+00	0.000E+00	2.789E-06	
B	6.0	0.15	1000.	0.	131.	140.9	110.2	0.0	0.000E+00	0.000E+00	1.673E-06	
B	8.9	0.38	1000.	0.	131.	140.9	110.2	0.0	0.000E+00	0.000E+00	1.131E-06	
B	11.6	0.04	1000.	0.	131.	140.9	110.2	0.0	0.000E+00	0.000E+00	8.715E-07	
C	3.6	1.16	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06	
C	6.0	1.58	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06	
C	8.9	0.68	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07	
C	11.6	0.15	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	6.230E-07	
C	26.5	0.04	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	2.719E-07	
D	0.2	0.01	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05	
D	1.7	2.22	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06	
D	3.6	12.39	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06	
D	6.0	19.57	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07	
D	8.9	14.87	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07	
D	11.6	2.74	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07	
D	26.5	0.56	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07	
E	0.3	0.02	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06	
E	1.8	2.25	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06	
E	3.9	8.83	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07	
E	6.5	13.78	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07	
E	9.6	5.86	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07	
E	12.5	0.86	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07	
E	28.5	0.26	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08	
F	0.3	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06	
F	1.8	0.98	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07	
F	3.9	3.72	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07	
F	6.5	3.04	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07	
F	9.6	0.15	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07	
F	12.5	0.04	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.003E-07	
G	1.8	0.41	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08	

G	3.9	1.77	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	0.60	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	0.04	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 390 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

S SECTOR BOUNDARY DISTANCE = 1000.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.789E-06	2.224E-06	1.994E-06	1.673E-06	1.262E-06	1.196E-06	1.131E-06
0.005	0.021	0.032	0.521	2.736	3.900	4.051	6.304	7.881	8.257
0.00031	0.00131	0.00201	0.03233	0.16995	0.24226	0.25159	0.39154	0.48950	0.51283
1.038E-06	1.002E-06	8.715E-07	8.082E-07	6.875E-07	6.230E-07	6.226E-07	5.890E-07	4.207E-07	4.063E-07
20.649	20.875	20.912	21.588	22.564	22.715	42.280	51.105	65.976	66.052
1.28256	1.29656	1.29889	1.34088	1.40152	1.41085	2.62610	3.17424	4.09792	4.10259
3.534E-07	3.243E-07	3.208E-07	3.132E-07	2.719E-07	2.388E-07	1.925E-07	1.841E-07	1.415E-07	1.301E-07
79.834	82.575	86.293	86.368	86.406	92.264	95.306	96.169	96.733	96.883
4.95862	5.12890	5.35982	5.36448	5.36681	5.73069	5.91962	5.97327	6.00826	6.01759
1.003E-07	8.032E-08	6.449E-08	3.010E-08	1.806E-08	1.220E-08				
96.921	97.183	97.597	99.362	99.962	100.000				
6.01992	6.03625	6.06190	6.17153	6.20885	6.21119				

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (2)= 0.242

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (3)= 1.281

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4) = 3.171
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5) = 4.955
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(6) = 5.356

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
1	1	-11.07050	-16.52881	-1.20789
1	2	-13.12558	-16.26715	-1.11501
1	3	-13.77855	-17.14253	-1.50723
1	4	-14.34482	-18.92640	-2.46826
1	5	-14.85564	-19.05410	-2.54569
1	6	-14.95230	NUMXQ(K) = 6	
		3.278E-06	0.062	1.000
		2.204E-06	0.186	3.000
		1.822E-06	0.311	5.000
		1.400E-06	0.621	10.000
		1.188E-06	0.932	15.000
		1.052E-06	1.242	20.000
		9.266E-07	1.553	25.000
		8.294E-07	1.863	30.000
		7.534E-07	2.174	35.000
		6.920E-07	2.484	40.000
		6.409E-07	2.795	45.000
		5.977E-07	3.106	50.000
		5.430E-07	3.416	55.000
		4.925E-07	3.727	60.000
		4.496E-07	4.037	65.000
		4.127E-07	4.348	70.000
		3.806E-07	4.658	75.000
		3.525E-07	4.969	80.000
		3.270E-07	5.280	85.000
		1.523E-06	0.5	8.05

ANNUAL AVERAGE = 3.67E-09

K= 1 FIVEXQ(K)= 1.523E-06 FIVEPR(K)= 8.050

FUMIGATION X/Q AT THE BOUNDARY: 4.11E-05

EXPONENTIAL TERM AND FREQUENCIES

9.582E-01	5.200E-01	4.914E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
0.376	3.981	5.032	12.967	65.322	97.183	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 392 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE SSW SECTOR.

STABILITY CLASS	WINDSPEED METER/SEC	FREQUENCY PERCENT	DISTANCE METERS	TERRAIN METERS	HT EFF METERS	PLUME HT METERS	SIGMA-Y METERS	SIGMA-Z METERS	MEANDER-SY METERS	** CHI/Q VALUES (SEC/CUBIC METER)		
										MEANDER	BLDG WAKE	USED
AT 131.4 METERS										CA=1292.SQ.METERS		
A	3.6	0.60	1000.	0.	131.	187.3	449.8	0.0	0.000E+00	0.000E+00	1.002E-06	
A	6.0	0.60	1000.	0.	131.	187.3	449.8	0.0	0.000E+00	0.000E+00	6.013E-07	
A	8.9	0.26	1000.	0.	131.	187.3	449.8	0.0	0.000E+00	0.000E+00	4.063E-07	
A	11.6	0.13	1000.	0.	131.	187.3	449.8	0.0	0.000E+00	0.000E+00	3.132E-07	
B	1.7	0.13	1000.	0.	131.	140.9	110.2	0.0	0.000E+00	0.000E+00	5.976E-06	
B	3.6	1.52	1000.	0.	131.	140.9	110.2	0.0	0.000E+00	0.000E+00	2.789E-06	
B	6.0	0.99	1000.	0.	131.	140.9	110.2	0.0	0.000E+00	0.000E+00	1.673E-06	
B	8.9	0.20	1000.	0.	131.	140.9	110.2	0.0	0.000E+00	0.000E+00	1.131E-06	
B	11.6	0.13	1000.	0.	131.	140.9	110.2	0.0	0.000E+00	0.000E+00	8.715E-07	
C	1.7	0.33	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	4.272E-06	
C	3.6	1.46	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06	
C	6.0	1.26	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06	
C	8.9	0.53	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07	
C	11.6	0.07	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	6.230E-07	
C	26.5	0.26	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	2.719E-07	
D	0.2	0.01	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05	
D	1.7	3.84	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06	
D	3.6	13.96	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06	
D	6.0	23.09	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07	
D	8.9	10.19	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07	
D	11.6	1.79	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07	
D	26.5	0.46	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07	
E	0.3	0.02	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06	
E	1.8	2.91	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06	
E	3.9	10.85	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07	
E	6.5	13.30	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07	
E	9.6	2.51	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07	
E	12.5	0.53	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07	
E	28.5	0.07	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08	
F	0.3	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06	
F	1.8	1.26	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07	
F	3.9	2.51	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07	
F	6.5	1.65	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07	
F	9.6	0.07	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07	

G	1.8	0.93	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	1.26	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	0.33	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 394 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

SSW SECTOR BOUNDARY DISTANCE = 1000.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	5.976E-06	4.813E-06	4.272E-06	2.789E-06	2.224E-06	1.994E-06	1.673E-06	1.262E-06
0.009	0.029	0.162	0.176	0.507	2.028	5.865	7.321	8.313	11.224
0.00031	0.00104	0.00570	0.00621	0.01788	0.07152	0.20681	0.25813	0.29311	0.39574
1.196E-06	1.131E-06	1.038E-06	1.002E-06	8.715E-07	8.082E-07	6.875E-07	6.230E-07	6.226E-07	6.013E-07
12.481	12.679	26.637	27.232	27.365	27.894	29.151	29.217	52.304	52.900
0.44006	0.44706	0.93922	0.96022	0.96488	0.98354	1.02786	1.03019	1.84424	1.86523
5.890E-07	4.207E-07	4.063E-07	3.534E-07	3.243E-07	3.208E-07	3.132E-07	2.719E-07	2.388E-07	1.925E-07
63.749	73.936	74.201	87.497	89.283	91.797	91.929	92.194	94.708	96.362
2.24777	2.60698	2.61631	3.08515	3.14812	3.23676	3.24142	3.25075	3.33939	3.39770
1.841E-07	1.415E-07	1.301E-07	8.032E-08	6.449E-08	3.010E-08	1.806E-08			
96.891	97.354	97.420	97.486	98.412	99.669	100.000			
3.41636	3.43269	3.43502	3.43736	3.47001	3.51433	3.52599			

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.207

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 0.938

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 2.245
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 3.082

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
2	1	-11.07050	-16.38931	-1.17607
2	2	-13.01641	-17.23837	-1.47213
2	3	-13.77855	-17.63933	-1.64273
2	4	-14.34482	-21.84093	-3.73776
2	5	-14.85564	NUMXQ(K)= 5	
		4.098E-06	0.035	1.000
		2.833E-06	0.106	3.000
		2.359E-06	0.176	5.000
		1.723E-06	0.353	10.000
		1.406E-06	0.529	15.000
		1.211E-06	0.705	20.000
		1.074E-06	0.881	25.000
		9.644E-07	1.058	30.000
		8.755E-07	1.234	35.000
		8.039E-07	1.410	40.000
		7.446E-07	1.587	45.000
		6.945E-07	1.763	50.000
		6.515E-07	1.939	55.000
		6.141E-07	2.116	60.000
		5.713E-07	2.292	65.000
		5.079E-07	2.468	70.000
		4.547E-07	2.644	75.000
		4.095E-07	2.821	80.000
		3.707E-07	2.997	85.000
		1.447E-06	0.5	14.18

ANNUAL AVERAGE = 5.17E-09

K= 2 FIVEXQ(K)= 1.447E-06 FIVEPR(K)=14.180

FUMIGATION X/Q AT THE BOUNDARY: 4.11E-05

EXPONENTIAL TERM AND FREQUENCIES

9.582E-01	5.200E-01	4.914E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
1.588	5.491	8.467	13.973	67.300	97.486	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 396 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE SW SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	3.6	1.73	1000.	0.	131.	187.3	449.8	0.0	0.000E+00	0.000E+00	1.002E-06			
A	6.0	1.50	1000.	0.	131.	187.3	449.8	0.0	0.000E+00	0.000E+00	6.013E-07			
A	8.9	0.68	1000.	0.	131.	187.3	449.8	0.0	0.000E+00	0.000E+00	4.063E-07			
B	1.7	0.15	1000.	0.	131.	140.9	110.2	0.0	0.000E+00	0.000E+00	5.976E-06			
B	3.6	1.35	1000.	0.	131.	140.9	110.2	0.0	0.000E+00	0.000E+00	2.789E-06			
B	6.0	0.98	1000.	0.	131.	140.9	110.2	0.0	0.000E+00	0.000E+00	1.673E-06			
B	8.9	0.15	1000.	0.	131.	140.9	110.2	0.0	0.000E+00	0.000E+00	1.131E-06			
B	11.6	0.08	1000.	0.	131.	140.9	110.2	0.0	0.000E+00	0.000E+00	8.715E-07			
C	1.7	0.90	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	4.272E-06			
C	3.6	2.10	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06			
C	6.0	0.68	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06			
C	8.9	0.30	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07			
D	0.2	0.02	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05			
D	1.7	8.10	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06			
D	3.6	17.86	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06			
D	6.0	18.83	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07			
D	8.9	6.38	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07			
D	11.6	0.98	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07			
D	26.5	0.90	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07			
E	0.3	0.02	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06			
E	1.8	2.70	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06			
E	3.9	11.25	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07			
E	6.5	11.71	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07			
E	9.6	1.95	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07			
E	12.5	0.60	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07			
E	28.5	0.08	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08			
F	0.3	0.02	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06			
F	1.8	1.65	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07			
F	3.9	2.55	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07			
F	6.5	0.98	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07			
F	9.6	0.08	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07			
G	1.8	0.83	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08			
G	3.9	1.65	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08			

G	6.5	0.30	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
---	-----	------	--------	----	------	--------	------	-----	-----------	-----------	-----------

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 398 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

SW SECTOR BOUNDARY DISTANCE = 1000.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	5.976E-06	4.813E-06	4.272E-06	2.789E-06	2.224E-06	1.994E-06	1.673E-06	1.262E-06
0.018	0.038	0.188	0.207	1.107	2.458	10.561	12.662	13.637	16.339
0.00057	0.00117	0.00583	0.00642	0.03441	0.07640	0.32831	0.39362	0.42395	0.50792
1.196E-06	1.131E-06	1.038E-06	1.002E-06	8.715E-07	8.082E-07	6.875E-07	6.226E-07	6.013E-07	5.890E-07
17.014	17.164	35.022	36.748	36.823	37.123	38.773	57.607	59.107	70.362
0.52891	0.53357	1.08872	1.14236	1.14470	1.15403	1.20534	1.79081	1.83746	2.18733
4.207E-07	4.063E-07	3.534E-07	3.243E-07	3.208E-07	2.388E-07	1.925E-07	1.841E-07	1.415E-07	1.301E-07
76.740	77.415	89.120	90.096	92.647	94.598	95.573	96.173	97.074	97.149
2.38560	2.40659	2.77047	2.80079	2.88009	2.94074	2.97106	2.98972	3.01771	3.02005
8.032E-08	6.449E-08	3.010E-08	1.806E-08						
97.224	98.049	99.700	100.000						
3.02238	3.04804	3.09935	3.10868						

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.328

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 1.087

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 1.141
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 2.185
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(6)= 2.768

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
3	1	-11.07050	-16.18261	-1.16470
3	2	-13.01641	-17.90589	-1.79862
3	3	-13.77855	-18.14374	-1.90227
3	4	-13.81337	-18.47590	-2.04818
3	5	-14.34482	-24.55913	-5.06425
3	6	-14.85564	NUMXQ(K)= 6	
		5.046E-06	0.031	1.000
		3.513E-06	0.093	3.000
		2.936E-06	0.155	5.000
		2.271E-06	0.311	10.000
		1.798E-06	0.466	15.000
		1.501E-06	0.622	20.000
		1.300E-06	0.777	25.000
		1.152E-06	0.933	30.000
		1.038E-06	1.088	35.000
		9.375E-07	1.243	40.000
		8.535E-07	1.399	45.000
		7.837E-07	1.554	50.000
		7.248E-07	1.710	55.000
		6.742E-07	1.865	60.000
		6.302E-07	2.021	65.000
		5.916E-07	2.176	70.000
		5.141E-07	2.332	75.000
		4.474E-07	2.487	80.000
		3.921E-07	2.642	85.000
		1.722E-06	0.5	16.08

ANNUAL AVERAGE = 5.96E-09

K= 3 FIVEXQ(K)= 1.722E-06 FIVEPR(K)=16.084

FUMIGATION X/Q AT THE BOUNDARY: 4.11E-05

EXPONENTIAL TERM AND FREQUENCIES

9.582E-01	5.200E-01	4.914E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
3.902	7.878	10.580	15.851	68.917	97.224	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 400 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE WSW SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	**	CHI/Q	VALUES	(SEC/CUBIC METER)
CLASS	METER/SEC	PERCENT	METERS	METERS			METERS		METERS	METERS	METERS		MEANDER	BLDG	WAKE
AT 131.4 METERS												CA=1292.SQ.METERS			
															USED
A	3.6	2.58	1000.	0.			131.		187.3	449.8	0.0		0.000E+00	0.000E+00	1.002E-06
A	6.0	1.92	1000.	0.			131.		187.3	449.8	0.0		0.000E+00	0.000E+00	6.013E-07
A	8.9	1.19	1000.	0.			131.		187.3	449.8	0.0		0.000E+00	0.000E+00	4.063E-07
A	11.6	0.07	1000.	0.			131.		187.3	449.8	0.0		0.000E+00	0.000E+00	3.132E-07
B	1.7	0.59	1000.	0.			131.		140.9	110.2	0.0		0.000E+00	0.000E+00	5.976E-06
B	3.6	1.65	1000.	0.			131.		140.9	110.2	0.0		0.000E+00	0.000E+00	2.789E-06
B	6.0	0.99	1000.	0.			131.		140.9	110.2	0.0		0.000E+00	0.000E+00	1.673E-06
B	8.9	0.07	1000.	0.			131.		140.9	110.2	0.0		0.000E+00	0.000E+00	1.131E-06
C	1.7	0.99	2000.	0.			131.		200.0	114.9	0.0		0.000E+00	0.000E+00	4.272E-06
C	3.6	2.44	2000.	0.			131.		200.0	114.9	0.0		0.000E+00	0.000E+00	1.994E-06
C	6.0	1.12	2000.	0.			131.		200.0	114.9	0.0		0.000E+00	0.000E+00	1.196E-06
C	8.9	0.20	2000.	0.			131.		200.0	114.9	0.0		0.000E+00	0.000E+00	8.082E-07
D	0.2	0.02	4000.	0.			131.		263.4	78.0	0.0		0.000E+00	0.000E+00	1.556E-05
D	1.7	7.86	4000.	0.			131.		263.4	78.0	0.0		0.000E+00	0.000E+00	2.224E-06
D	3.6	22.19	4000.	0.			131.		263.4	78.0	0.0		0.000E+00	0.000E+00	1.038E-06
D	6.0	18.36	4000.	0.			131.		263.4	78.0	0.0		0.000E+00	0.000E+00	6.226E-07
D	8.9	4.43	4000.	0.			131.		263.4	78.0	0.0		0.000E+00	0.000E+00	4.207E-07
D	11.6	0.73	4000.	0.			131.		263.4	78.0	0.0		0.000E+00	0.000E+00	3.243E-07
D	26.5	0.13	4000.	0.			131.		263.4	78.0	0.0		0.000E+00	0.000E+00	1.415E-07
E	0.3	0.03	9000.	0.			131.		389.6	74.2	0.0		0.000E+00	0.000E+00	8.835E-06
E	1.8	4.03	9000.	0.			131.		389.6	74.2	0.0		0.000E+00	0.000E+00	1.262E-06
E	3.9	14.46	9000.	0.			131.		389.6	74.2	0.0		0.000E+00	0.000E+00	5.890E-07
E	6.5	6.67	9000.	0.			131.		389.6	74.2	0.0		0.000E+00	0.000E+00	3.534E-07
E	9.6	0.73	9000.	0.			131.		389.6	74.2	0.0		0.000E+00	0.000E+00	2.388E-07
E	12.5	0.26	9000.	0.			131.		389.6	74.2	0.0		0.000E+00	0.000E+00	1.841E-07
E	28.5	0.07	9000.	0.			131.		389.6	74.2	0.0		0.000E+00	0.000E+00	8.032E-08
F	0.3	0.02	90000.	0.			131.		1000.0	92.1	0.0		0.000E+00	0.000E+00	4.813E-06
F	1.8	1.72	90000.	0.			131.		1000.0	92.1	0.0		0.000E+00	0.000E+00	6.875E-07
F	3.9	1.92	90000.	0.			131.		1000.0	92.1	0.0		0.000E+00	0.000E+00	3.208E-07
F	6.5	0.53	90000.	0.			131.		1000.0	92.1	0.0		0.000E+00	0.000E+00	1.925E-07
G	1.8	0.66	90000.	0.			131.		1000.0	46.0	0.0		0.000E+00	0.000E+00	6.449E-08
G	3.9	1.25	90000.	0.			131.		1000.0	46.0	0.0		0.000E+00	0.000E+00	3.010E-08
G	6.5	0.13	90000.	0.			131.		1000.0	46.0	0.0		0.000E+00	0.000E+00	1.806E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 401 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1 96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

WSW SECTOR BOUNDARY DISTANCE = 1000.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	5.976E-06	4.813E-06	4.272E-06	2.789E-06	2.224E-06	1.994E-06	1.673E-06	1.262E-06
0.018	0.046	0.641	0.661	1.651	3.303	11.163	13.607	14.597	18.626
0.00063	0.00164	0.02263	0.02333	0.05832	0.11663	0.39420	0.48051	0.51549	0.65778
1.196E-06	1.131E-06	1.038E-06	1.002E-06	8.082E-07	6.875E-07	6.226E-07	6.013E-07	5.890E-07	4.207E-07
19.749	19.815	42.008	44.584	44.782	46.499	64.861	66.777	81.242	85.667
0.69743	0.69976	1.48349	1.57446	1.58146	1.64210	2.29055	2.35819	2.86901	3.02529
4.063E-07	3.534E-07	3.243E-07	3.208E-07	3.132E-07	2.388E-07	1.925E-07	1.841E-07	1.415E-07	8.032E-08
86.856	93.527	94.254	96.169	96.235	96.962	97.490	97.754	97.886	97.952
3.06728	3.30286	3.32852	3.39616	3.39850	3.42415	3.44281	3.45214	3.45681	3.45914
6.449E-08	3.010E-08	1.806E-08							
98.613	99.868	100.000							
3.48247	3.52678	3.53145							

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.023
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 0.394

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (4)= 1.573
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (5)= 2.866
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (6)= 3.393

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
4	1	-11.07050	-15.92960	-1.11242
4	2	-12.02781	-16.10674	-1.16292
4	3	-13.01641	-17.20093	-1.57467
4	4	-13.81337	-18.37827	-2.12195
4	5	-14.34482	-29.76128	-8.11040
4	6	-14.95230	NUMXQ(K)= 6	
		5.196E-06	0.035	1.000
		3.607E-06	0.106	3.000
		3.009E-06	0.177	5.000
		2.321E-06	0.353	10.000
		1.896E-06	0.530	15.000
		1.615E-06	0.706	20.000
		1.421E-06	0.883	25.000
		1.277E-06	1.059	30.000
		1.164E-06	1.236	35.000
		1.072E-06	1.413	40.000
		9.943E-07	1.589	45.000
		9.088E-07	1.766	50.000
		8.367E-07	1.942	55.000
		7.751E-07	2.119	60.000
		7.218E-07	2.295	65.000
		6.752E-07	2.472	70.000
		6.341E-07	2.649	75.000
		5.975E-07	2.825	80.000
		5.014E-07	3.002	85.000
		4.082E-07	3.178	90.000
		1.957E-06	0.5	14.16

ANNUAL AVERAGE = 9.65E-09

K= 4 FIVEXQ(K)= 1.957E-06 FIVEPR(K)=14.158

FUMIGATION X/Q AT THE BOUNDARY: 4.11E-05

EXPONENTIAL TERM AND FREQUENCIES

9.582E-01	5.200E-01	4.914E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
5.746	10.502	13.804	17.985	71.702	97.952	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 403 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE W SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	1.7	0.15	1000.	0.	131.	187.3	449.8	0.0	0.000E+00	0.000E+00	2.147E-06			
A	3.6	4.26	1000.	0.	131.	187.3	449.8	0.0	0.000E+00	0.000E+00	1.002E-06			
A	6.0	2.25	1000.	0.	131.	187.3	449.8	0.0	0.000E+00	0.000E+00	6.013E-07			
A	8.9	0.34	1000.	0.	131.	187.3	449.8	0.0	0.000E+00	0.000E+00	4.063E-07			
B	1.7	0.24	1000.	0.	131.	140.9	110.2	0.0	0.000E+00	0.000E+00	5.976E-06			
B	3.6	2.74	1000.	0.	131.	140.9	110.2	0.0	0.000E+00	0.000E+00	2.789E-06			
B	6.0	0.59	1000.	0.	131.	140.9	110.2	0.0	0.000E+00	0.000E+00	1.673E-06			
B	8.9	0.05	1000.	0.	131.	140.9	110.2	0.0	0.000E+00	0.000E+00	1.131E-06			
C	1.7	0.05	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	4.272E-06			
C	3.6	2.45	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06			
C	6.0	0.68	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06			
C	8.9	0.15	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07			
C	11.6	0.05	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	6.230E-07			
D	0.2	0.01	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05			
D	1.7	5.63	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06			
D	3.6	21.28	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06			
D	6.0	16.19	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07			
D	8.9	6.46	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07			
D	11.6	1.57	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07			
D	26.5	0.39	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07			
E	0.3	0.02	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06			
E	1.8	2.94	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06			
E	3.9	13.85	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07			
E	6.5	7.88	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07			
E	9.6	2.84	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07			
E	12.5	0.59	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07			
E	28.5	0.98	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08			
F	0.3	0.02	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06			
F	1.8	1.52	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07			
F	3.9	1.66	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07			
F	6.5	0.64	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07			
F	28.5	0.20	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.375E-08			
G	1.8	0.64	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08			

G	3.9	0.64	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	0.10	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 405 of 1411

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

W SECTOR BOUNDARY DISTANCE = 1000.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	5.976E-06	4.813E-06	4.272E-06	2.789E-06	2.224E-06	2.147E-06	1.994E-06	1.673E-06
0.013	0.034	0.278	0.296	0.345	3.084	8.710	8.857	11.303	11.890
0.00061	0.00160	0.01326	0.01410	0.01643	0.14705	0.41529	0.42229	0.53892	0.56691
1.262E-06	1.196E-06	1.131E-06	1.038E-06	1.002E-06	8.082E-07	6.875E-07	6.230E-07	6.226E-07	6.013E-07
14.826	15.511	15.560	36.841	41.097	41.244	42.761	42.809	59.003	61.253
0.70686	0.73951	0.74185	1.75649	1.95942	1.96642	2.03873	2.04106	2.81313	2.92042
5.890E-07	4.207E-07	4.063E-07	3.534E-07	3.243E-07	3.208E-07	2.388E-07	1.925E-07	1.841E-07	1.415E-07
75.098	81.556	81.899	89.775	91.341	93.004	95.842	96.478	97.065	97.456
3.58053	3.88842	3.90475	4.28029	4.35493	4.43423	4.56952	4.59984	4.62783	4.64649
8.032E-08	6.449E-08	4.375E-08	3.010E-08	1.806E-08					
98.434	99.070	99.266	99.902	100.000					
4.69314	4.72347	4.73280	4.76312	4.76779					

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.415
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 0.538

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 1.957
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 3.577
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(6)= 4.431

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
5	1	-11.07050	-15.97581	-1.12108
5	2	-13.01641	-16.23424	-1.21898
5	3	-13.12558	-16.72301	-1.41064
5	4	-13.81337	-18.01891	-2.03891
5	5	-14.34482	-25.37596	-6.12165
5	6	-14.95230	NUMXQ(K) = 6	

4.683E-06	0.048	1.000
3.266E-06	0.143	3.000
2.730E-06	0.238	5.000
2.099E-06	0.477	10.000
1.731E-06	0.715	15.000
1.492E-06	0.954	20.000
1.324E-06	1.192	25.000
1.198E-06	1.430	30.000
1.099E-06	1.669	35.000
1.018E-06	1.907	40.000
9.281E-07	2.146	45.000
8.479E-07	2.384	50.000
7.802E-07	2.622	55.000
7.224E-07	2.861	60.000
6.723E-07	3.099	65.000
6.284E-07	3.337	70.000
5.897E-07	3.576	75.000
4.934E-07	3.814	80.000
4.155E-07	4.053	85.000
3.528E-07	4.291	90.000
2.058E-06	0.5	10.49

ANNUAL AVERAGE = 1.27E-08

K= 5 FIVEXQ(K)= 2.058E-06 FIVEPR(K)=10.487

FUMIGATION X/Q AT THE BOUNDARY: 4.11E-05

EXPONENTIAL TERM AND FREQUENCIES

9.582E-01	5.200E-01	4.914E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
6.996	10.372	13.992	18.021	69.549	98.630	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 407 of 1411

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE WNW SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q	VALUES (SEC/CUBIC METER)	
CLASS	METER/SEC	PERCENT	METERS	METERS			METERS		METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	3.6	2.40	1000.	0.			131.		187.3	449.8	0.0	0.000E+00	0.000E+00	1.002E-06
A	6.0	2.40	1000.	0.			131.		187.3	449.8	0.0	0.000E+00	0.000E+00	6.013E-07
A	8.9	0.16	1000.	0.			131.		187.3	449.8	0.0	0.000E+00	0.000E+00	4.063E-07
A	11.6	0.05	1000.	0.			131.		187.3	449.8	0.0	0.000E+00	0.000E+00	3.132E-07
A	26.5	0.05	1000.	0.			131.		187.3	449.8	0.0	0.000E+00	0.000E+00	1.367E-07
B	3.6	1.58	1000.	0.			131.		140.9	110.2	0.0	0.000E+00	0.000E+00	2.789E-06
B	6.0	1.36	1000.	0.			131.		140.9	110.2	0.0	0.000E+00	0.000E+00	1.673E-06
B	8.9	0.11	1000.	0.			131.		140.9	110.2	0.0	0.000E+00	0.000E+00	1.131E-06
B	11.6	0.05	1000.	0.			131.		140.9	110.2	0.0	0.000E+00	0.000E+00	8.715E-07
C	3.6	3.54	2000.	0.			131.		200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06
C	6.0	1.42	2000.	0.			131.		200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06
C	8.9	0.22	2000.	0.			131.		200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07
C	11.6	0.11	2000.	0.			131.		200.0	114.9	0.0	0.000E+00	0.000E+00	6.230E-07
D	0.2	0.01	4000.	0.			131.		263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05
D	1.7	4.69	4000.	0.			131.		263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06
D	3.6	16.58	4000.	0.			131.		263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06
D	6.0	16.79	4000.	0.			131.		263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07
D	8.9	7.63	4000.	0.			131.		263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07
D	11.6	1.42	4000.	0.			131.		263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07
D	26.5	0.11	4000.	0.			131.		263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07
E	0.3	0.02	9000.	0.			131.		389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06
E	1.8	3.27	9000.	0.			131.		389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06
E	3.9	10.91	9000.	0.			131.		389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07
E	6.5	14.01	9000.	0.			131.		389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07
E	9.6	3.44	9000.	0.			131.		389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07
E	12.5	1.15	9000.	0.			131.		389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07
E	28.5	0.22	9000.	0.			131.		389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08
F	0.3	0.01	90000.	0.			131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06
F	1.8	1.25	90000.	0.			131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07
F	3.9	2.84	90000.	0.			131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07
F	6.5	1.31	90000.	0.			131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07
F	9.6	0.11	90000.	0.			131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07
F	28.5	0.05	90000.	0.			131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	4.375E-08

G	1.8	0.27	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	0.33	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	0.11	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 409 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

WNW SECTOR BOUNDARY DISTANCE = 1000.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.789E-06	2.224E-06	1.994E-06	1.673E-06	1.262E-06	1.196E-06	1.131E-06
0.011	0.034	0.048	1.630	6.319	9.864	11.227	14.499	15.916	16.025
0.00045	0.00145	0.00207	0.06971	0.27031	0.42192	0.48024	0.62019	0.68083	0.68550
1.038E-06	1.002E-06	8.715E-07	8.082E-07	6.875E-07	6.230E-07	6.226E-07	6.013E-07	5.890E-07	4.207E-07
32.602	35.001	35.056	35.274	36.528	36.637	53.432	55.832	66.737	74.371
1.39459	1.49722	1.49955	1.50888	1.56253	1.56719	2.28561	2.38824	2.85475	3.18130
4.063E-07	3.534E-07	3.243E-07	3.208E-07	3.132E-07	2.388E-07	1.925E-07	1.841E-07	1.415E-07	1.367E-07
74.535	88.549	89.967	92.802	92.857	96.292	97.601	98.746	98.855	98.909
3.18830	3.78776	3.84840	3.96969	3.97203	4.11897	4.17495	4.22394	4.22860	4.23094
1.301E-07	8.032E-08	6.449E-08	4.375E-08	3.010E-08	1.806E-08				
99.018	99.237	99.509	99.564	99.891	100.000				
4.23560	4.24493	4.25659	4.25893	4.27292	4.27759				

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.421
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 1.496

Calculation No. PM-1055 Revision 0

Attachment J

Page 410 of 1411

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 2.852
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 3.784

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
6	1	-11.07050	-16.12652	-1.13914
6	2	-13.12558	-17.03788	-1.48508
6	3	-13.81337	-18.11481	-1.98107
6	4	-14.34482	-22.01463	-4.03037
6	5	-14.85564	NUMXQ(K)= 5	

4.425E-06	0.043	1.000
3.078E-06	0.128	3.000
2.570E-06	0.214	5.000
1.980E-06	0.428	10.000
1.606E-06	0.642	15.000
1.376E-06	0.856	20.000
1.216E-06	1.069	25.000
1.096E-06	1.283	30.000
1.002E-06	1.497	35.000
9.016E-07	1.711	40.000
8.199E-07	1.925	45.000
7.520E-07	2.139	50.000
6.946E-07	2.353	55.000
6.454E-07	2.567	60.000
6.026E-07	2.780	65.000
5.413E-07	2.994	70.000
4.785E-07	3.208	75.000
4.258E-07	3.422	80.000
3.811E-07	3.636	85.000
1.829E-06	0.5	11.69

ANNUAL AVERAGE = 8.57E-09

K= 6 FIVEXQ(K)= 1.829E-06 FIVEPR(K)=11.689

FUMIGATION X/Q AT THE BOUNDARY: 4.11E-05

EXPONENTIAL TERM AND FREQUENCIES

9.582E-01	5.200E-01	4.914E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
5.071	10.361	13.469	19.045	66.278	99.291	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 411 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE NW SECTOR.

STABILITY CLASS	WINDSPEED METER/SEC	FREQUENCY PERCENT	DISTANCE METERS	TERRAIN METERS	HT METERS	EFF PLUME METERS	SIGMA-Y METERS	SIGMA-Z METERS	MEANDER-SY METERS	** CHI/Q VALUES (SEC/CUBIC METER)	MEANDER	BLDG WAKE	USED
AT 131.4 METERS										CA=1292.SQ.METERS			
A	3.6	0.17	1000.	0.	131.	187.3	449.8	0.0	0.000E+00	0.000E+00	1.002E-06		
A	6.0	0.87	1000.	0.	131.	187.3	449.8	0.0	0.000E+00	0.000E+00	6.013E-07		
A	8.9	0.56	1000.	0.	131.	187.3	449.8	0.0	0.000E+00	0.000E+00	4.063E-07		
B	1.7	0.09	1000.	0.	131.	140.9	110.2	0.0	0.000E+00	0.000E+00	5.976E-06		
B	3.6	0.43	1000.	0.	131.	140.9	110.2	0.0	0.000E+00	0.000E+00	2.789E-06		
B	6.0	1.17	1000.	0.	131.	140.9	110.2	0.0	0.000E+00	0.000E+00	1.673E-06		
B	8.9	0.35	1000.	0.	131.	140.9	110.2	0.0	0.000E+00	0.000E+00	1.131E-06		
B	11.6	0.04	1000.	0.	131.	140.9	110.2	0.0	0.000E+00	0.000E+00	8.715E-07		
C	3.6	0.61	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06		
C	6.0	2.69	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06		
C	8.9	0.48	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07		
D	0.2	0.00	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05		
D	1.7	1.95	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06		
D	3.6	14.72	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06		
D	6.0	20.76	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07		
D	8.9	6.99	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07		
D	11.6	0.61	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07		
D	26.5	0.30	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07		
E	0.3	0.02	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06		
E	1.8	2.65	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06		
E	3.9	14.98	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07		
E	6.5	15.16	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07		
E	9.6	4.26	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07		
E	12.5	0.69	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07		
E	28.5	0.52	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08		
F	0.3	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06		
F	1.8	1.22	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07		
F	3.9	3.52	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07		
F	6.5	2.08	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07		
F	9.6	0.30	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07		
G	1.8	0.17	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08		
G	3.9	1.22	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08		
G	6.5	0.35	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08		

G	9.6	0.04	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08
---	-----	------	--------	----	------	--------	------	-----	-----------	-----------	-----------

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 413 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

NW SECTOR BOUNDARY DISTANCE = 1000.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	5.976E-06	4.813E-06	2.789E-06	2.224E-06	1.994E-06	1.673E-06	1.262E-06	1.196E-06
0.004	0.023	0.110	0.124	0.558	2.512	3.120	4.293	6.942	9.634
0.00024	0.00125	0.00591	0.00667	0.02999	0.13496	0.16761	0.23059	0.37288	0.51749
1.131E-06	1.038E-06	1.002E-06	8.715E-07	8.082E-07	6.875E-07	6.226E-07	6.013E-07	5.890E-07	4.207E-07
9.981	24.702	24.876	24.919	25.397	26.613	47.370	48.238	63.220	70.211
0.53615	1.32688	1.33621	1.33854	1.36420	1.42951	2.54446	2.59111	3.39583	3.77136
4.063E-07	3.534E-07	3.243E-07	3.208E-07	2.388E-07	1.925E-07	1.841E-07	1.415E-07	1.301E-07	8.032E-08
70.775	85.931	86.538	90.056	94.311	96.396	97.091	97.395	97.698	98.220
3.80169	4.61574	4.64839	4.83733	5.06591	5.17788	5.21520	5.23152	5.24785	5.27584
6.449E-08	3.010E-08	1.806E-08	1.220E-08						
98.393	99.609	99.957	100.000						
5.28517	5.35048	5.36914	5.37148						

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.135

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 3.393

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 4.612

K	I	XQSAVE(K, I)	XQINT(K, I)	XQSLOP(K, I)
7	1	-11.07050	-16.72216	-1.23509
7	2	-13.01641	-15.94176	-0.97499
7	3	-13.77855	-16.97764	-1.44188
7	4	-14.34482	-20.90027	-3.59012
7	5	-14.85564	NUMXQ(K)= 5	
		3.104E-06	0.054	1.000
		2.109E-06	0.161	3.000
		1.801E-06	0.269	5.000
		1.435E-06	0.537	10.000
		1.246E-06	0.806	15.000
		1.123E-06	1.074	20.000
		1.031E-06	1.343	25.000
		9.290E-07	1.611	30.000
		8.491E-07	1.880	35.000
		7.841E-07	2.149	40.000
		7.300E-07	2.417	45.000
		6.839E-07	2.686	50.000
		6.441E-07	2.954	55.000
		6.093E-07	3.223	60.000
		5.631E-07	3.491	65.000
		4.988E-07	3.760	70.000
		4.448E-07	4.029	75.000
		3.991E-07	4.297	80.000
		3.601E-07	4.566	85.000
		1.470E-06	0.5	9.31

ANNUAL AVERAGE = 5.00E-09

K= 7 FIVEXQ(K)= 1.470E-06 FIVEPR(K)= 9.308

FUMIGATION X/Q AT THE BOUNDARY: 4.11E-05

EXPONENTIAL TERM AND FREQUENCIES

9.582E-01	5.200E-01	4.914E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
1.607	5.385	7.469	14.605	59.944	98.220	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 415 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE NNW SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	3.6	0.09	1000.	0.	131.	187.3	449.8	0.0	0.000E+00	0.000E+00	1.002E-06			
A	6.0	0.09	1000.	0.	131.	187.3	449.8	0.0	0.000E+00	0.000E+00	6.013E-07			
B	3.6	0.14	1000.	0.	131.	140.9	110.2	0.0	0.000E+00	0.000E+00	2.789E-06			
B	6.0	0.37	1000.	0.	131.	140.9	110.2	0.0	0.000E+00	0.000E+00	1.673E-06			
B	8.9	0.37	1000.	0.	131.	140.9	110.2	0.0	0.000E+00	0.000E+00	1.131E-06			
B	11.6	0.05	1000.	0.	131.	140.9	110.2	0.0	0.000E+00	0.000E+00	8.715E-07			
C	3.6	0.55	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06			
C	6.0	1.01	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06			
C	8.9	0.46	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07			
C	11.6	0.05	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	6.230E-07			
D	0.2	0.00	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05			
D	1.7	1.61	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06			
D	3.6	11.17	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06			
D	6.0	21.42	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07			
D	8.9	5.42	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07			
D	11.6	0.51	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07			
D	26.5	0.32	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07			
E	0.3	0.02	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06			
E	1.8	2.71	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06			
E	3.9	14.29	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07			
E	6.5	20.36	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07			
E	9.6	7.58	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07			
E	12.5	0.51	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07			
E	28.5	0.09	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08			
F	0.3	0.02	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06			
F	1.8	1.47	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07			
F	3.9	4.14	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07			
F	6.5	3.63	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07			
F	9.6	0.37	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07			
G	1.8	0.41	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08			
G	3.9	0.46	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08			
G	6.5	0.28	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08			
G	9.6	0.05	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08			

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 416 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

NNW SECTOR BOUNDARY DISTANCE = 1000.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.789E-06	2.224E-06	1.994E-06	1.673E-06	1.262E-06	1.196E-06	1.131E-06
0.004	0.023	0.040	0.178	1.786	2.338	2.706	5.417	6.428	6.796
0.00018	0.00116	0.00203	0.00902	0.09066	0.11865	0.13731	0.27493	0.32625	0.34491
1.038E-06	1.002E-06	8.715E-07	8.082E-07	6.875E-07	6.230E-07	6.226E-07	6.013E-07	5.890E-07	4.207E-07
17.964	18.056	18.102	18.561	20.032	20.078	41.495	41.587	55.880	61.303
0.91171	0.91638	0.91871	0.94203	1.01667	1.01901	2.10596	2.11063	2.83604	3.11128
3.534E-07	3.243E-07	3.208E-07	2.388E-07	1.925E-07	1.841E-07	1.415E-07	1.301E-07	8.032E-08	6.449E-08
81.662	82.168	86.304	93.887	97.518	98.024	98.345	98.713	98.805	99.219
4.14459	4.17025	4.38017	4.76504	4.94931	4.97497	4.99130	5.00996	5.01462	5.03561
3.010E-08	1.806E-08	1.220E-08							
99.678	99.954	100.000							
5.05894	5.07293	5.07527							

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (2)= 0.091

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (3)= 0.911

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 2.833
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 4.141

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
8	1	-11.07050	-17.03991	-1.28978
8	2	-13.01641	-16.15192	-1.00513
8	3	-13.77855	-16.71476	-1.24349
8	4	-14.34482	-20.02675	-2.98127
8	5	-14.85564	NUMXQ(K)= 5	
		2.758E-06	0.051	1.000
		1.901E-06	0.152	3.000
		1.617E-06	0.254	5.000
		1.281E-06	0.508	10.000
		1.109E-06	0.761	15.000
		9.872E-07	1.015	20.000
		8.881E-07	1.269	25.000
		8.125E-07	1.523	30.000
		7.524E-07	1.776	35.000
		7.029E-07	2.030	40.000
		6.612E-07	2.284	45.000
		6.253E-07	2.538	50.000
		5.941E-07	2.791	55.000
		5.366E-07	3.045	60.000
		4.825E-07	3.299	65.000
		4.367E-07	3.553	70.000
		3.975E-07	3.806	75.000
		3.637E-07	4.060	80.000
		1.288E-06	0.5	9.85

ANNUAL AVERAGE = 1.83E-09

K= 8 FIVEEXQ(K)= 1.288E-06 FIVEPR(K)= 9.852

FUMIGATION X/Q AT THE BOUNDARY: 4.11E-05

EXPONENTIAL TERM AND FREQUENCIES

9.582E-01	5.200E-01	4.914E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
0.184	2.252	3.171	12.793	53.241	98.805	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 418 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1 96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE N SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q	VALUES	(SEC/CUBIC METER)	
CLASS	METER/SEC	PERCENT	METERS	METERS			METERS		METERS	METERS	METERS	MEANDER	BLDG	WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS			
A	6.0	0.28	1000.	0.			131.		187.3	449.8	0.0	0.000E+00	0.000E+00		6.013E-07
A	8.9	0.16	1000.	0.			131.		187.3	449.8	0.0	0.000E+00	0.000E+00		4.063E-07
B	3.6	0.07	1000.	0.			131.		140.9	110.2	0.0	0.000E+00	0.000E+00		2.789E-06
B	6.0	0.58	1000.	0.			131.		140.9	110.2	0.0	0.000E+00	0.000E+00		1.673E-06
B	8.9	0.72	1000.	0.			131.		140.9	110.2	0.0	0.000E+00	0.000E+00		1.131E-06
B	11.6	0.12	1000.	0.			131.		140.9	110.2	0.0	0.000E+00	0.000E+00		8.715E-07
B	26.5	0.02	1000.	0.			131.		140.9	110.2	0.0	0.000E+00	0.000E+00		3.803E-07
C	3.6	0.44	2000.	0.			131.		200.0	114.9	0.0	0.000E+00	0.000E+00		1.994E-06
C	6.0	1.68	2000.	0.			131.		200.0	114.9	0.0	0.000E+00	0.000E+00		1.196E-06
C	8.9	1.56	2000.	0.			131.		200.0	114.9	0.0	0.000E+00	0.000E+00		8.082E-07
C	11.6	0.21	2000.	0.			131.		200.0	114.9	0.0	0.000E+00	0.000E+00		6.230E-07
C	26.5	0.02	2000.	0.			131.		200.0	114.9	0.0	0.000E+00	0.000E+00		2.719E-07
D	0.2	0.00	4000.	0.			131.		263.4	78.0	0.0	0.000E+00	0.000E+00		1.556E-05
D	1.7	0.96	4000.	0.			131.		263.4	78.0	0.0	0.000E+00	0.000E+00		2.224E-06
D	3.6	7.00	4000.	0.			131.		263.4	78.0	0.0	0.000E+00	0.000E+00		1.038E-06
D	6.0	16.51	4000.	0.			131.		263.4	78.0	0.0	0.000E+00	0.000E+00		6.226E-07
D	8.9	11.24	4000.	0.			131.		263.4	78.0	0.0	0.000E+00	0.000E+00		4.207E-07
D	11.6	2.31	4000.	0.			131.		263.4	78.0	0.0	0.000E+00	0.000E+00		3.243E-07
D	26.5	0.68	4000.	0.			131.		263.4	78.0	0.0	0.000E+00	0.000E+00		1.415E-07
E	0.3	0.01	9000.	0.			131.		389.6	74.2	0.0	0.000E+00	0.000E+00		8.835E-06
E	1.8	1.63	9000.	0.			131.		389.6	74.2	0.0	0.000E+00	0.000E+00		1.262E-06
E	3.9	10.14	9000.	0.			131.		389.6	74.2	0.0	0.000E+00	0.000E+00		5.890E-07
E	6.5	20.78	9000.	0.			131.		389.6	74.2	0.0	0.000E+00	0.000E+00		3.534E-07
E	9.6	12.03	9000.	0.			131.		389.6	74.2	0.0	0.000E+00	0.000E+00		2.388E-07
E	12.5	1.49	9000.	0.			131.		389.6	74.2	0.0	0.000E+00	0.000E+00		1.841E-07
E	28.5	0.14	9000.	0.			131.		389.6	74.2	0.0	0.000E+00	0.000E+00		8.032E-08
F	0.3	0.01	90000.	0.			131.		1000.0	92.1	0.0	0.000E+00	0.000E+00		4.813E-06
F	1.8	0.54	90000.	0.			131.		1000.0	92.1	0.0	0.000E+00	0.000E+00		6.875E-07
F	3.9	3.13	90000.	0.			131.		1000.0	92.1	0.0	0.000E+00	0.000E+00		3.208E-07
F	6.5	3.03	90000.	0.			131.		1000.0	92.1	0.0	0.000E+00	0.000E+00		1.925E-07
F	9.6	1.03	90000.	0.			131.		1000.0	92.1	0.0	0.000E+00	0.000E+00		1.301E-07
G	1.8	0.40	90000.	0.			131.		1000.0	46.0	0.0	0.000E+00	0.000E+00		6.449E-08
G	3.9	0.79	90000.	0.			131.		1000.0	46.0	0.0	0.000E+00	0.000E+00		3.010E-08

G	6.5	0.23	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	0.05	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 420 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

N SECTOR BOUNDARY DISTANCE = 1000.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.789E-06	2.224E-06	1.994E-06	1.673E-06	1.262E-06	1.196E-06	1.131E-06
0.002	0.014	0.020	0.090	1.046	1.489	2.072	3.705	5.384	6.107
0.00022	0.00138	0.00200	0.00900	0.10463	0.14895	0.20726	0.37054	0.53848	0.61079
1.038E-06	8.715E-07	8.082E-07	6.875E-07	6.230E-07	6.226E-07	6.013E-07	5.890E-07	4.207E-07	4.063E-07
13.103	13.220	14.783	15.319	15.529	32.041	32.320	42.465	53.706	53.870
1.31054	1.32221	1.47849	1.53213	1.55313	3.20455	3.23254	4.24719	5.37147	5.38780
3.803E-07	3.534E-07	3.243E-07	3.208E-07	2.719E-07	2.388E-07	1.925E-07	1.841E-07	1.415E-07	1.301E-07
53.893	74.673	76.981	80.107	80.130	92.164	95.196	96.688	97.365	98.391
5.39013	7.46841	7.69933	8.01189	8.01422	9.21780	9.52103	9.67031	9.73795	9.84058
8.032E-08	6.449E-08	3.010E-08	1.806E-08	1.220E-08					
98.531	98.927	99.720	99.953	100.000					
9.85458	9.89423	9.97354	9.99686	10.00153					

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (2) = 0.538

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (4) = 4.244

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 7.465

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
9	1	-11.07050	-16.83680	-1.25481
9	2	-13.63641	-14.74517	-0.43472
9	3	-13.77855	-16.29454	-1.13153
9	4	-14.34482	-17.47672	-1.81763
9	5	-14.85564	NUMXQ(K)= 5	
		2.355E-06	0.100	1.000
		1.533E-06	0.300	3.000
		1.235E-06	0.500	5.000
		1.085E-06	1.000	10.000
		9.772E-07	1.500	15.000
		8.567E-07	2.000	20.000
		7.704E-07	2.500	25.000
		7.044E-07	3.000	30.000
		6.515E-07	3.501	35.000
		6.079E-07	4.001	40.000
		5.604E-07	4.501	45.000
		5.112E-07	5.001	50.000
		4.696E-07	5.501	55.000
		4.340E-07	6.001	60.000
		4.030E-07	6.501	65.000
		3.759E-07	7.001	70.000
		1.235E-06	0.5	5.00

ANNUAL AVERAGE = 5.23E-09

K= 9 FIVEXQ(K)= 1.235E-06 FIVEPR(K)= 4.999

FUMIGATION X/Q AT THE BOUNDARY: 4.11E-05

EXPONENTIAL TERM AND FREQUENCIES

9.582E-01	5.200E-01	4.914E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
0.443	4.361	5.877	13.603	52.296	98.531	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 422 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE NNE SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)
CLASS	METER/SEC	PERCENT	METERS	METERS			METERS		METERS	METERS	METERS	MEANDER BLDG WAKE USED
AT 131.4 METERS												
CA=1292.SQ.METERS												
A	3.6	0.08	1000.	0.			131.		187.3	449.8	0.0	0.000E+00 0.000E+00 1.002E-06
A	6.0	0.28	1000.	0.			131.		187.3	449.8	0.0	0.000E+00 0.000E+00 6.013E-07
A	8.9	0.12	1000.	0.			131.		187.3	449.8	0.0	0.000E+00 0.000E+00 4.063E-07
B	3.6	0.16	1000.	0.			131.		140.9	110.2	0.0	0.000E+00 0.000E+00 2.789E-06
B	6.0	0.56	1000.	0.			131.		140.9	110.2	0.0	0.000E+00 0.000E+00 1.673E-06
B	8.9	0.36	1000.	0.			131.		140.9	110.2	0.0	0.000E+00 0.000E+00 1.131E-06
B	11.6	0.08	1000.	0.			131.		140.9	110.2	0.0	0.000E+00 0.000E+00 8.715E-07
C	3.6	0.20	2000.	0.			131.		200.0	114.9	0.0	0.000E+00 0.000E+00 1.994E-06
C	6.0	1.47	2000.	0.			131.		200.0	114.9	0.0	0.000E+00 0.000E+00 1.196E-06
C	8.9	0.95	2000.	0.			131.		200.0	114.9	0.0	0.000E+00 0.000E+00 8.082E-07
D	0.2	0.00	4000.	0.			131.		263.4	78.0	0.0	0.000E+00 0.000E+00 1.556E-05
D	1.7	0.91	4000.	0.			131.		263.4	78.0	0.0	0.000E+00 0.000E+00 2.224E-06
D	3.6	7.60	4000.	0.			131.		263.4	78.0	0.0	0.000E+00 0.000E+00 1.038E-06
D	6.0	16.91	4000.	0.			131.		263.4	78.0	0.0	0.000E+00 0.000E+00 6.226E-07
D	8.9	6.60	4000.	0.			131.		263.4	78.0	0.0	0.000E+00 0.000E+00 4.207E-07
D	11.6	0.64	4000.	0.			131.		263.4	78.0	0.0	0.000E+00 0.000E+00 3.243E-07
D	26.5	0.36	4000.	0.			131.		263.4	78.0	0.0	0.000E+00 0.000E+00 1.415E-07
E	0.3	0.02	9000.	0.			131.		389.6	74.2	0.0	0.000E+00 0.000E+00 8.835E-06
E	1.8	2.23	9000.	0.			131.		389.6	74.2	0.0	0.000E+00 0.000E+00 1.262E-06
E	3.9	12.73	9000.	0.			131.		389.6	74.2	0.0	0.000E+00 0.000E+00 5.890E-07
E	6.5	22.95	9000.	0.			131.		389.6	74.2	0.0	0.000E+00 0.000E+00 3.534E-07
E	9.6	9.07	9000.	0.			131.		389.6	74.2	0.0	0.000E+00 0.000E+00 2.388E-07
E	12.5	0.76	9000.	0.			131.		389.6	74.2	0.0	0.000E+00 0.000E+00 1.841E-07
E	28.5	0.16	9000.	0.			131.		389.6	74.2	0.0	0.000E+00 0.000E+00 8.032E-08
F	0.3	0.01	90000.	0.			131.		1000.0	92.1	0.0	0.000E+00 0.000E+00 4.813E-06
F	1.8	1.27	90000.	0.			131.		1000.0	92.1	0.0	0.000E+00 0.000E+00 6.875E-07
F	3.9	5.61	90000.	0.			131.		1000.0	92.1	0.0	0.000E+00 0.000E+00 3.208E-07
F	6.5	4.42	90000.	0.			131.		1000.0	92.1	0.0	0.000E+00 0.000E+00 1.925E-07
F	9.6	0.91	90000.	0.			131.		1000.0	92.1	0.0	0.000E+00 0.000E+00 1.301E-07
F	12.5	0.12	90000.	0.			131.		1000.0	92.1	0.0	0.000E+00 0.000E+00 1.003E-07
G	1.8	0.36	90000.	0.			131.		1000.0	46.0	0.0	0.000E+00 0.000E+00 6.449E-08
G	3.9	1.23	90000.	0.			131.		1000.0	46.0	0.0	0.000E+00 0.000E+00 3.010E-08
G	6.5	0.84	90000.	0.			131.		1000.0	46.0	0.0	0.000E+00 0.000E+00 1.806E-08

G	9.6	0.04	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08
---	-----	------	--------	----	------	--------	------	-----	-----------	-----------	-----------

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 424 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

NNE SECTOR BOUNDARY DISTANCE = 1000.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.789E-06	2.224E-06	1.994E-06	1.673E-06	1.262E-06	1.196E-06	1.131E-06
0.002	0.018	0.033	0.192	1.107	1.306	1.863	4.090	5.562	5.920
0.00012	0.00105	0.00191	0.01124	0.06489	0.07655	0.10921	0.23983	0.32613	0.34713
1.038E-06	1.002E-06	8.715E-07	8.082E-07	6.875E-07	6.226E-07	6.013E-07	5.890E-07	4.207E-07	4.063E-07
13.518	13.598	13.677	14.632	15.905	32.811	33.090	45.820	52.423	52.542
0.79264	0.79730	0.80197	0.85795	0.93259	1.92391	1.94024	2.68665	3.07385	3.08085
3.534E-07	3.243E-07	3.208E-07	2.388E-07	1.925E-07	1.841E-07	1.415E-07	1.301E-07	1.003E-07	8.032E-08
75.495	76.132	81.741	90.811	95.226	95.982	96.340	97.255	97.375	97.534
4.42671	4.46403	4.79292	5.32473	5.58364	5.62796	5.64895	5.70260	5.70960	5.71893
6.449E-08	3.010E-08	1.806E-08	1.220E-08						
97.892	99.125	99.960	100.000						
5.73992	5.81223	5.86121	5.86355						

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.001

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 0.792

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (4)= 2.684
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (5)= 4.423

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
10	1	-11.07050	-16.86574	-1.22926
10	2	-11.63677	-16.58538	-1.16335
10	3	-13.77855	-16.60540	-1.17164
10	4	-14.34482	-18.70869	-2.26176
10	5	-14.85564	NUMXQ(K)= 5	

2.735E-06	0.059	1.000
1.869E-06	0.176	3.000
1.546E-06	0.293	5.000
1.176E-06	0.586	10.000
9.923E-07	0.880	15.000
8.742E-07	1.173	20.000
7.897E-07	1.466	25.000
7.250E-07	1.759	30.000
6.733E-07	2.052	35.000
6.305E-07	2.345	40.000
5.944E-07	2.639	45.000
5.404E-07	2.932	50.000
4.912E-07	3.225	55.000
4.496E-07	3.518	60.000
4.139E-07	3.811	65.000
3.830E-07	4.104	70.000
3.559E-07	4.398	75.000

1.255E-06	0.5	8.53
-----------	-----	------

ANNUAL AVERAGE = 2.53E-09

K= 10 FIVEXQ(K)= 1.255E-06 FIVEPR(K)= 8.527

FUMIGATION X/Q AT THE BOUNDARY: 4.11E-05

EXPONENTIAL TERM AND FREQUENCIES

9.582E-01	5.200E-01	4.914E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
0.477	3.103	4.256	16.603	49.623	97.534	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 426 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1 96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE NE SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	3.6	0.09	1000.	0.	131.	187.3	449.8	0.0	0.000E+00	0.000E+00	1.002E-06			
A	6.0	0.23	1000.	0.	131.	187.3	449.8	0.0	0.000E+00	0.000E+00	6.013E-07			
A	8.9	0.09	1000.	0.	131.	187.3	449.8	0.0	0.000E+00	0.000E+00	4.063E-07			
B	3.6	0.14	1000.	0.	131.	140.9	110.2	0.0	0.000E+00	0.000E+00	2.789E-06			
B	6.0	0.61	1000.	0.	131.	140.9	110.2	0.0	0.000E+00	0.000E+00	1.673E-06			
B	8.9	0.28	1000.	0.	131.	140.9	110.2	0.0	0.000E+00	0.000E+00	1.131E-06			
B	11.6	0.05	1000.	0.	131.	140.9	110.2	0.0	0.000E+00	0.000E+00	8.715E-07			
C	3.6	0.33	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06			
C	6.0	1.41	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06			
C	8.9	0.99	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07			
C	11.6	0.19	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	6.230E-07			
C	26.5	0.05	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	2.719E-07			
D	0.2	0.00	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05			
D	1.7	1.50	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06			
D	3.6	7.28	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06			
D	6.0	13.48	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07			
D	8.9	5.92	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07			
D	11.6	0.75	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07			
D	26.5	0.14	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07			
E	0.3	0.02	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06			
E	1.8	2.77	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06			
E	3.9	13.19	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07			
E	6.5	16.62	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07			
E	9.6	10.14	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07			
E	12.5	0.85	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07			
E	28.5	0.09	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08			
F	0.3	0.02	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06			
F	1.8	1.50	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07			
F	3.9	7.32	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07			
F	6.5	7.37	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07			
F	9.6	1.83	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07			
G	1.8	0.28	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08			
G	3.9	1.69	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08			

Calculation No. PM-1055 Revision 0**Attachment J****Page 427 of 1411**

G	6.5	2.39	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	0.38	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 428 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

NE SECTOR BOUNDARY DISTANCE = 1000.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED. THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR. THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.789E-06	2.224E-06	1.994E-06	1.673E-06	1.262E-06	1.196E-06	1.131E-06
0.003	0.023	0.040	0.181	1.684	2.012	2.623	5.393	6.801	7.083
0.00017	0.00115	0.00201	0.00901	0.08365	0.09998	0.13030	0.26792	0.33789	0.35189
1.038E-06	1.002E-06	8.715E-07	8.082E-07	6.875E-07	6.230E-07	6.226E-07	6.013E-07	5.890E-07	4.207E-07
14.361	14.455	14.501	15.487	16.990	17.178	30.653	30.888	44.081	49.997
0.71343	0.71809	0.72043	0.76941	0.84405	0.85338	1.52282	1.53448	2.18992	2.48382
4.063E-07	3.534E-07	3.243E-07	3.208E-07	2.719E-07	2.388E-07	1.925E-07	1.841E-07	1.415E-07	1.301E-07
50.091	66.711	67.463	74.787	74.834	84.976	92.347	93.192	93.333	95.164
2.48848	3.31419	3.35152	3.71539	3.71772	4.22155	4.58775	4.62974	4.63674	4.72770
8.032E-08	6.449E-08	3.010E-08	1.806E-08	1.220E-08					
95.258	95.540	97.230	99.624	100.000					
4.73237	4.74636	4.83034	4.94929	4.96795					

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED. THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (2)= 0.084
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (3)= 0.713

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (4)= 2.188
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (5)= 3.712

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
11	1	-11.07050	-17.08419	-1.29417
11	2	-13.01641	-16.47666	-1.10089
11	3	-13.77855	-16.97336	-1.30355
11	4	-14.34482	-19.63989	-2.62593
11	5	-14.95230	NUMXQ(K)= 5	
		2.698E-06	0.050	1.000
		1.838E-06	0.149	3.000
		1.540E-06	0.248	5.000
		1.194E-06	0.497	10.000
		1.017E-06	0.745	15.000
		8.855E-07	0.994	20.000
		7.927E-07	1.242	25.000
		7.224E-07	1.490	30.000
		6.666E-07	1.739	35.000
		6.209E-07	1.987	40.000
		5.758E-07	2.236	45.000
		5.121E-07	2.484	50.000
		4.597E-07	2.732	55.000
		4.160E-07	2.981	60.000
		3.790E-07	3.229	65.000
		3.472E-07	3.478	70.000
		1.191E-06	0.5	10.06

ANNUAL AVERAGE = 2.18E-09

K= 11 FIVEXQ(K)= 1.191E-06 FIVEPR(K)=10.065

FUMIGATION X/Q AT THE BOUNDARY: 4.11E-05

EXPONENTIAL TERM AND FREQUENCIES

9.582E-01	5.200E-01	4.914E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
0.423	3.381	4.460	22.507	51.573	95.258	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 430 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE ENE SECTOR.

STABILITY CLASS	WINDSPEED METER/SEC	FREQUENCY PERCENT	DISTANCE METERS	TERRAIN METERS	HT METERS	EFF PLUME METERS	SIGMA-Y METERS	SIGMA-Z METERS	MEANDER-SY METERS	** CHI/Q VALUES (SEC/CUBIC METER)	MEANDER	BLDG WAKE	USED
AT 131.4 METERS										CA=1292.SQ.METERS			
A	6.0	0.33	1000.	0.	131.	187.3	449.8	0.0	0.000E+00	0.000E+00	6.013E-07		
A	8.9	0.14	1000.	0.	131.	187.3	449.8	0.0	0.000E+00	0.000E+00	4.063E-07		
A	11.6	0.09	1000.	0.	131.	187.3	449.8	0.0	0.000E+00	0.000E+00	3.132E-07		
A	26.5	0.09	1000.	0.	131.	187.3	449.8	0.0	0.000E+00	0.000E+00	1.367E-07		
B	3.6	0.05	1000.	0.	131.	140.9	110.2	0.0	0.000E+00	0.000E+00	2.789E-06		
B	6.0	0.38	1000.	0.	131.	140.9	110.2	0.0	0.000E+00	0.000E+00	1.673E-06		
B	8.9	0.89	1000.	0.	131.	140.9	110.2	0.0	0.000E+00	0.000E+00	1.131E-06		
B	11.6	0.09	1000.	0.	131.	140.9	110.2	0.0	0.000E+00	0.000E+00	8.715E-07		
B	26.5	0.05	1000.	0.	131.	140.9	110.2	0.0	0.000E+00	0.000E+00	3.803E-07		
C	3.6	0.14	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06		
C	6.0	1.22	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06		
C	8.9	1.46	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07		
C	11.6	0.19	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	6.230E-07		
C	26.5	0.05	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	2.719E-07		
D	0.2	0.00	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05		
D	1.7	0.71	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06		
D	3.6	6.02	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06		
D	6.0	9.93	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07		
D	8.9	8.94	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07		
D	11.6	1.03	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07		
D	26.5	0.28	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07		
E	0.3	0.02	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06		
E	1.8	2.54	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06		
E	3.9	8.80	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07		
E	6.5	13.97	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07		
E	9.6	12.75	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07		
E	12.5	1.41	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07		
E	28.5	0.05	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08		
F	0.3	0.02	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06		
F	1.8	1.55	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07		
F	3.9	5.50	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07		
F	6.5	8.33	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07		
F	9.6	5.13	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07		
F	12.5	0.85	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.003E-07		

G	1.8	0.85	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	1.60	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	3.29	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	1.22	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08
G	12.5	0.05	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	9.405E-09

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 432 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

ENE SECTOR BOUNDARY DISTANCE = 1000.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.789E-06	2.224E-06	1.994E-06	1.673E-06	1.262E-06	1.196E-06	1.131E-06
0.002	0.020	0.038	0.085	0.790	0.931	1.308	3.848	5.071	5.965
0.00008	0.00098	0.00186	0.00420	0.03918	0.04618	0.06484	0.19080	0.25144	0.29576
1.038E-06	8.715E-07	8.082E-07	6.875E-07	6.230E-07	6.226E-07	6.013E-07	5.890E-07	4.207E-07	4.063E-07
11.986	12.080	13.538	15.091	15.279	25.205	25.534	34.331	43.268	43.410
0.59433	0.59899	0.67130	0.74827	0.75760	1.24977	1.26609	1.70227	2.14545	2.15245
3.803E-07	3.534E-07	3.243E-07	3.208E-07	3.132E-07	2.719E-07	2.388E-07	1.925E-07	1.841E-07	1.415E-07
43.457	57.428	58.463	63.966	64.061	64.108	76.856	85.182	86.593	86.876
2.15478	2.84754	2.89886	3.17177	3.17643	3.17876	3.81088	4.22373	4.29371	4.30770
1.367E-07	1.301E-07	1.003E-07	8.032E-08	6.449E-08	3.010E-08	1.806E-08	1.220E-08	9.405E-09	
86.970	92.097	92.944	92.991	93.838	95.437	98.730	99.953	100.000	
4.31237	4.56662	4.60860	4.61093	4.65292	4.73222	4.89550	4.95615	4.95848	

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (2) = 0.001

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (3) = 0.594

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 1.700
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 3.169
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(6)= 3.808

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
12	1	-11.07050	-16.19649	-1.06775
12	2	-11.63677	-16.84987	-1.22076
12	3	-13.77855	-17.37678	-1.43019
12	4	-14.34482	-19.23354	-2.30603
12	5	-14.95230	-21.55319	-3.55548
12	6	-15.24768	NUMXQ(K)= 6	
		2.680E-06	0.050	1.000
		1.808E-06	0.149	3.000
		1.486E-06	0.248	5.000
		1.121E-06	0.496	10.000
		9.253E-07	0.744	15.000
		7.953E-07	0.992	20.000
		7.044E-07	1.240	25.000
		6.362E-07	1.488	30.000
		5.785E-07	1.735	35.000
		5.101E-07	1.983	40.000
		4.556E-07	2.231	45.000
		4.110E-07	2.479	50.000
		3.739E-07	2.727	55.000
		3.425E-07	2.975	60.000
		3.128E-07	3.223	65.000
		2.779E-07	3.471	70.000
		2.485E-07	3.719	75.000
		1.117E-06	0.5	10.08

ANNUAL AVERAGE = 2.13E-09

K= 12 FIVEXQ(K)= 1.117E-06 FIVEPR(K)=10.084

FUMIGATION X/Q AT THE BOUNDARY: 4.11E-05

EXPONENTIAL TERM AND FREQUENCIES

9.582E-01	5.200E-01	4.914E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
0.659	3.716	5.175	26.549	53.458	92.991	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 434 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE E SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	3.6	0.03	1000.	0.	131.	187.3	449.8	0.0	0.000E+00	0.000E+00	1.002E-06			
A	6.0	0.24	1000.	0.	131.	187.3	449.8	0.0	0.000E+00	0.000E+00	6.013E-07			
A	8.9	0.63	1000.	0.	131.	187.3	449.8	0.0	0.000E+00	0.000E+00	4.063E-07			
A	11.6	0.42	1000.	0.	131.	187.3	449.8	0.0	0.000E+00	0.000E+00	3.132E-07			
A	26.5	0.06	1000.	0.	131.	187.3	449.8	0.0	0.000E+00	0.000E+00	1.367E-07			
B	3.6	0.12	1000.	0.	131.	140.9	110.2	0.0	0.000E+00	0.000E+00	2.789E-06			
B	6.0	0.63	1000.	0.	131.	140.9	110.2	0.0	0.000E+00	0.000E+00	1.673E-06			
B	8.9	0.81	1000.	0.	131.	140.9	110.2	0.0	0.000E+00	0.000E+00	1.131E-06			
B	11.6	0.36	1000.	0.	131.	140.9	110.2	0.0	0.000E+00	0.000E+00	8.715E-07			
B	26.5	0.18	1000.	0.	131.	140.9	110.2	0.0	0.000E+00	0.000E+00	3.803E-07			
C	3.6	0.15	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06			
C	6.0	1.25	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06			
C	8.9	1.67	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07			
C	11.6	0.86	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	6.230E-07			
C	26.5	0.39	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	2.719E-07			
D	0.2	0.00	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05			
D	1.7	0.78	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06			
D	3.6	4.21	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06			
D	6.0	8.98	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07			
D	8.9	11.78	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07			
D	11.6	6.71	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07			
D	26.5	2.68	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07			
E	0.3	0.01	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06			
E	1.8	1.61	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06			
E	3.9	5.16	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07			
E	6.5	11.78	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07			
E	9.6	15.99	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07			
E	12.5	2.33	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07			
E	28.5	0.27	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08			
F	0.3	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06			
F	1.8	0.89	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07			
F	3.9	2.54	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07			
F	6.5	5.91	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07			
F	9.6	5.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07			

Calculation No. PM-1055 Revision 0**Attachment J****Page 435 of 1411**

F	12.5	0.72	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.003E-07
G	1.8	0.39	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	1.19	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	2.06	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	1.16	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08
G	12.5	0.03	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	9.405E-09
G	28.5	0.03	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	4.104E-09

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 436 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1 96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

E SECTOR BOUNDARY DISTANCE = 1000.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.
 THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.
 THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.789E-06	2.224E-06	1.994E-06	1.673E-06	1.262E-06	1.196E-06	1.131E-06
0.002	0.013	0.024	0.143	0.918	1.067	1.694	3.304	4.557	5.362
0.00014	0.00103	0.00184	0.01117	0.07182	0.08348	0.13246	0.25842	0.35639	0.41936
1.038E-06	1.002E-06	8.715E-07	8.082E-07	6.875E-07	6.230E-07	6.226E-07	6.013E-07	5.890E-07	4.207E-07
9.568	9.598	9.956	11.626	12.521	13.386	22.363	22.602	27.762	39.543
0.74825	0.75058	0.77857	0.90919	0.97917	1.04681	1.74890	1.76756	2.17109	3.09244
4.063E-07	3.803E-07	3.534E-07	3.243E-07	3.208E-07	3.132E-07	2.719E-07	2.388E-07	1.925E-07	1.841E-07
40.169	40.348	52.129	58.840	61.375	61.793	62.181	78.167	84.073	86.399
3.14142	3.15541	4.07676	4.60158	4.79984	4.83250	4.86282	6.11306	6.57490	6.75683
1.415E-07	1.367E-07	1.301E-07	1.003E-07	8.032E-08	6.449E-08	3.010E-08	1.806E-08	1.220E-08	9.405E-09
89.084	89.143	94.154	94.870	95.138	95.526	96.719	98.777	99.940	99.970
6.96676	6.97143	7.36329	7.41927	7.44026	7.47059	7.56389	7.72483	7.81580	7.81813
4.104E-09									
100.000									
7.82046									

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
 THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
 ORDERED X/Q-FREQUENCY VALUES, AND AS
 PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS

Calculation No. PM-1055 Revision 0

SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

Attachment J

Page 437 of 1411

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.419
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 2.169
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 4.796
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(6)= 6.109

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
13	1	-11.07050	-17.06049	-1.27734
13	2	-13.69282	-14.80735	-0.42274
13	3	-13.77855	-17.11061	-1.36916
13	4	-14.34482	-17.80038	-1.71062
13	5	-14.95230	-19.07565	-2.47657
13	6	-15.24768	NUMXQ(K)= 6	
		2.214E-06	0.078	1.000
		1.444E-06	0.235	3.000
		1.165E-06	0.391	5.000
		1.015E-06	0.782	10.000
		8.251E-07	1.173	15.000
		7.075E-07	1.564	20.000
		6.251E-07	1.955	25.000
		5.570E-07	2.346	30.000
		4.975E-07	2.737	35.000
		4.500E-07	3.128	40.000
		4.111E-07	3.519	45.000
		3.785E-07	3.910	50.000
		3.508E-07	4.301	55.000
		3.269E-07	4.692	60.000
		2.995E-07	5.083	65.000
		2.738E-07	5.474	70.000
		2.514E-07	5.865	75.000
		1.102E-06	0.5	6.39

ANNUAL AVERAGE = 4.67E-09

K= 13 FIVEXQ(K)= 1.102E-06 FIVEPR(K)= 6.393

FUMIGATION X/Q AT THE BOUNDARY: 4.11E-05

EXPONENTIAL TERM AND FREQUENCIES

9.582E-01	5.200E-01	4.914E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
1.372	5.697	7.785	22.857	57.994	95.138	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 438 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE ESE SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN HT	EFF PLUME HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS			CA=1292.SQ.METERS								
A	6.0	0.24	1000.	0.	131.	187.3	449.8	0.0	0.000E+00	0.000E+00	6.013E-07
A	8.9	0.24	1000.	0.	131.	187.3	449.8	0.0	0.000E+00	0.000E+00	4.063E-07
A	11.6	0.05	1000.	0.	131.	187.3	449.8	0.0	0.000E+00	0.000E+00	3.132E-07
A	26.5	0.13	1000.	0.	131.	187.3	449.8	0.0	0.000E+00	0.000E+00	1.367E-07
B	3.6	0.08	1000.	0.	131.	140.9	110.2	0.0	0.000E+00	0.000E+00	2.789E-06
B	6.0	0.24	1000.	0.	131.	140.9	110.2	0.0	0.000E+00	0.000E+00	1.673E-06
B	8.9	0.53	1000.	0.	131.	140.9	110.2	0.0	0.000E+00	0.000E+00	1.131E-06
B	11.6	0.37	1000.	0.	131.	140.9	110.2	0.0	0.000E+00	0.000E+00	8.715E-07
B	26.5	0.19	1000.	0.	131.	140.9	110.2	0.0	0.000E+00	0.000E+00	3.803E-07
C	3.6	0.13	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06
C	6.0	0.69	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06
C	8.9	1.57	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07
C	11.6	0.80	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	6.230E-07
C	26.5	0.72	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	2.719E-07
D	0.2	0.00	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05
D	1.7	1.01	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06
D	3.6	2.59	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06
D	6.0	9.48	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07
D	8.9	17.99	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07
D	11.6	11.96	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07
D	26.5	4.03	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07
E	0.3	0.01	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06
E	1.8	0.96	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06
E	3.9	3.68	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07
E	6.5	9.45	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07
E	9.6	15.56	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07
E	12.5	2.96	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07
E	28.5	0.32	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08
F	0.3	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06
F	1.8	0.75	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07
F	3.9	1.76	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07
F	6.5	3.74	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07
F	9.6	3.68	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07
F	12.5	0.48	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.003E-07

G	1.8	0.37	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	0.93	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	1.17	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	1.04	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08
G	12.5	0.05	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	9.405E-09

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 440 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1 96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

ESE SECTOR BOUNDARY DISTANCE = 1000.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.789E-06	2.224E-06	1.994E-06	1.673E-06	1.262E-06	1.196E-06	1.131E-06
0.002	0.009	0.018	0.098	1.112	1.246	1.486	2.447	3.141	3.674
0.00020	0.00080	0.00155	0.00855	0.09719	0.10885	0.12984	0.21381	0.27446	0.32111
1.038E-06	8.715E-07	8.082E-07	6.875E-07	6.230E-07	6.226E-07	6.013E-07	5.890E-07	4.207E-07	4.063E-07
6.263	6.637	8.212	8.959	9.760	19.235	19.475	23.158	41.148	41.388
0.54736	0.58002	0.71764	0.78295	0.85292	1.68097	1.70196	2.02385	3.59597	3.61697
3.803E-07	3.534E-07	3.243E-07	3.208E-07	3.132E-07	2.719E-07	2.388E-07	1.925E-07	1.841E-07	1.415E-07
41.575	51.023	62.980	64.742	64.795	65.516	81.077	84.813	87.776	91.806
3.63329	4.45901	5.50398	5.65792	5.66259	5.72557	7.08543	7.41198	7.67089	8.02310
1.367E-07	1.301E-07	1.003E-07	8.032E-08	6.449E-08	3.010E-08	1.806E-08	1.220E-08	9.405E-09	
91.939	95.623	96.103	96.423	96.797	97.731	98.906	99.947	100.000	
8.03477	8.35666	8.39864	8.42663	8.45929	8.54092	8.64356	8.73452	8.73919	

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2) = 0.097

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3) = 0.547

Calculation No. PM-1055 Revision 0

Attachment J

Page 441 of 1411

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 2.022
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 5.654
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(6)= 7.082

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
14	1	-11.07050	-17.00428	-1.28683
14	2	-13.01641	-17.27818	-1.37521
14	3	-13.77855	-16.68676	-1.14281
14	4	-14.34482	-17.02320	-1.30698
14	5	-14.95230	-19.03111	-2.57421
14	6	-15.24768	NUMXQ(K) = 6	
		2.315E-06	0.087	1.000
		1.458E-06	0.262	3.000
		1.155E-06	0.437	5.000
		8.565E-07	0.874	10.000
		7.187E-07	1.311	15.000
		6.308E-07	1.748	20.000
		5.650E-07	2.185	25.000
		5.106E-07	2.622	30.000
		4.676E-07	3.059	35.000
		4.324E-07	3.496	40.000
		4.030E-07	3.933	45.000
		3.779E-07	4.370	50.000
		3.561E-07	4.807	55.000
		3.370E-07	5.244	60.000
		3.192E-07	5.680	65.000
		2.901E-07	6.117	70.000
		2.650E-07	6.554	75.000
		2.431E-07	6.991	80.000
		1.084E-06	0.5	5.72

ANNUAL AVERAGE = 3.50E-09

K= 14 FIVEXQ(K)= 1.084E-06 FIVEPR(K)= 5.721

FUMIGATION X/Q AT THE BOUNDARY: 4.11E-05

EXPONENTIAL TERM AND FREQUENCIES

9.582E-01	5.200E-01	4.914E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
0.667	4.591	6.005	16.423	63.481	96.423	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 442 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE SE SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	6.0	0.04	1000.	0.	131.	187.3	449.8	0.0	0.000E+00	0.000E+00	6.013E-07			
A	8.9	0.06	1000.	0.	131.	187.3	449.8	0.0	0.000E+00	0.000E+00	4.063E-07			
A	26.5	0.02	1000.	0.	131.	187.3	449.8	0.0	0.000E+00	0.000E+00	1.367E-07			
B	3.6	0.08	1000.	0.	131.	140.9	110.2	0.0	0.000E+00	0.000E+00	2.789E-06			
B	6.0	0.04	1000.	0.	131.	140.9	110.2	0.0	0.000E+00	0.000E+00	1.673E-06			
B	8.9	0.19	1000.	0.	131.	140.9	110.2	0.0	0.000E+00	0.000E+00	1.131E-06			
B	11.6	0.08	1000.	0.	131.	140.9	110.2	0.0	0.000E+00	0.000E+00	8.715E-07			
C	3.6	0.06	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06			
C	6.0	0.55	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06			
C	8.9	0.74	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07			
C	11.6	0.59	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	6.230E-07			
C	26.5	0.13	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	2.719E-07			
D	0.2	0.00	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05			
D	1.7	0.76	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06			
D	3.6	4.10	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06			
D	6.0	11.52	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07			
D	8.9	22.08	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07			
D	11.6	11.54	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07			
D	26.5	3.91	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07			
E	0.3	0.01	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06			
E	1.8	0.83	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06			
E	3.9	3.61	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07			
E	6.5	11.03	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07			
E	9.6	13.83	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07			
E	12.5	1.89	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07			
E	28.5	0.13	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08			
F	0.3	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06			
F	1.8	0.55	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07			
F	3.9	2.00	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07			
F	6.5	3.78	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07			
F	9.6	1.91	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07			
G	1.8	0.28	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08			
G	3.9	1.49	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08			

G	6.5	1.95	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	0.19	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 444 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

LOW POPULATION ZONE CALCULATIONS:

SE SECTOR BOUNDARY DISTANCE = 1000.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.789E-06	2.224E-06	1.994E-06	1.673E-06	1.262E-06	1.196E-06	1.131E-06
0.002	0.008	0.014	0.099	0.864	0.928	0.970	1.799	2.351	2.542
0.00019	0.00084	0.00154	0.01087	0.09484	0.10184	0.10650	0.19747	0.25811	0.27911
1.038E-06	8.715E-07	8.082E-07	6.875E-07	6.230E-07	6.226E-07	6.013E-07	5.890E-07	4.207E-07	4.063E-07
6.643	6.728	7.472	8.024	8.619	20.134	20.177	23.789	45.864	45.928
0.72929	0.73862	0.82025	0.88090	0.94621	2.21044	2.21510	2.61163	5.03513	5.04212
3.534E-07	3.243E-07	3.208E-07	2.719E-07	2.388E-07	1.925E-07	1.841E-07	1.415E-07	1.367E-07	1.301E-07
56.955	68.491	70.489	70.616	84.448	88.229	90.120	94.030	94.051	95.963
6.25270	7.51926	7.73852	7.75252	9.27099	9.68618	9.89377	10.32296	10.32529	10.53522
8.032E-08	6.449E-08	3.010E-08	1.806E-08	1.220E-08					
96.091	96.367	97.854	99.809	100.000					
10.54921	10.57954	10.74281	10.95741	10.97840					

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.095
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 0.728

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 5.031
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 7.735

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
15	1	-11.07050	-17.00308	-1.28344
15	2	-13.01641	-16.58555	-1.14903
15	3	-13.77855	-16.53176	-1.12701
15	4	-14.68142	-16.71521	-1.23875
15	5	-14.95230	NUMXQ(K)= 5	
		2.115E-06	0.110	1.000
		1.422E-06	0.329	3.000
		1.165E-06	0.549	5.000
		8.749E-07	1.098	10.000
		7.320E-07	1.647	15.000
		6.409E-07	2.196	20.000
		5.757E-07	2.745	25.000
		5.258E-07	3.294	30.000
		4.859E-07	3.842	35.000
		4.529E-07	4.391	40.000
		4.251E-07	4.940	45.000
		3.992E-07	5.489	50.000
		3.763E-07	6.038	55.000
		3.562E-07	6.587	60.000
		3.384E-07	7.136	65.000
		3.223E-07	7.685	70.000
		1.209E-06	0.5	4.55

ANNUAL AVERAGE = 2.03E-09

K= 15 FIVEXQ(K)= 1.209E-06 FIVEPR(K)= 4.554

FUMIGATION X/Q AT THE BOUNDARY: 4.11E-05

EXPONENTIAL TERM AND FREQUENCIES

9.582E-01	5.200E-01	4.914E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
0.127	2.210	2.613	10.863	64.767	96.091	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 446 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE SSE SECTOR.

STABILITY CLASS	WINDSPEED METER/SEC	FREQUENCY PERCENT	DISTANCE METERS	TERRAIN METERS	HT EFF METERS	PLUME HT METERS	SIGMA-Y METERS	SIGMA-Z METERS	MEANDER-SY METERS	** CHI/Q VALUES (SEC/CUBIC METER)		
										MEANDER	BLDG WAKE	USED
AT 131.4 METERS										CA=1292.SQ.METERS		
A	3.6	0.02	1000.	0.	131.	187.3	449.8	0.0	0.000E+00	0.000E+00	1.002E-06	
A	6.0	0.17	1000.	0.	131.	187.3	449.8	0.0	0.000E+00	0.000E+00	6.013E-07	
A	8.9	0.32	1000.	0.	131.	187.3	449.8	0.0	0.000E+00	0.000E+00	4.063E-07	
A	11.6	0.02	1000.	0.	131.	187.3	449.8	0.0	0.000E+00	0.000E+00	3.132E-07	
A	26.5	0.02	1000.	0.	131.	187.3	449.8	0.0	0.000E+00	0.000E+00	1.367E-07	
B	3.6	0.06	1000.	0.	131.	140.9	110.2	0.0	0.000E+00	0.000E+00	2.789E-06	
B	6.0	0.48	1000.	0.	131.	140.9	110.2	0.0	0.000E+00	0.000E+00	1.673E-06	
B	8.9	0.71	1000.	0.	131.	140.9	110.2	0.0	0.000E+00	0.000E+00	1.131E-06	
B	11.6	0.11	1000.	0.	131.	140.9	110.2	0.0	0.000E+00	0.000E+00	8.715E-07	
C	3.6	0.48	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06	
C	6.0	2.16	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06	
C	8.9	2.01	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07	
C	11.6	0.37	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	6.230E-07	
D	0.2	0.00	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05	
D	1.7	1.08	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06	
D	3.6	8.31	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06	
D	6.0	20.04	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07	
D	8.9	19.82	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07	
D	11.6	5.23	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07	
D	26.5	1.36	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07	
E	0.3	0.01	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06	
E	1.8	0.73	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06	
E	3.9	4.38	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07	
E	6.5	11.10	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07	
E	9.6	10.11	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07	
E	12.5	0.93	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07	
E	28.5	0.22	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08	
F	0.3	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06	
F	1.8	0.48	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07	
F	3.9	2.09	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07	
F	6.5	2.72	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07	
F	9.6	0.69	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07	
F	12.5	0.11	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.003E-07	

Calculation No. PM-1055 Revision 0

Attachment J

G	1.8	0.41	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	1.27	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	1.84	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	0.11	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08
G	28.5	0.02	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	4.104E-09

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 448 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

SSE SECTOR BOUNDARY DISTANCE = 1000.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED:

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.789E-06	2.224E-06	1.994E-06	1.673E-06	1.262E-06	1.196E-06	1.131E-06
0.002	0.008	0.013	0.078	1.158	1.633	2.108	2.842	5.002	5.714
0.00026	0.00083	0.00142	0.00842	0.12504	0.17636	0.22768	0.30698	0.54023	0.61721
1.038E-06	1.002E-06	8.715E-07	8.082E-07	6.875E-07	6.230E-07	6.226E-07	6.013E-07	5.890E-07	4.207E-07
14.029	14.050	14.158	16.167	16.642	17.009	37.049	37.222	41.606	61.431
1.51523	1.51756	1.52922	1.74615	1.79746	1.83712	4.00170	4.02036	4.49386	6.63512
4.063E-07	3.534E-07	3.243E-07	3.208E-07	3.132E-07	2.388E-07	1.925E-07	1.841E-07	1.415E-07	1.367E-07
61.754	72.855	78.081	80.175	80.197	90.304	93.025	93.953	95.314	95.335
6.67011	7.86903	8.43350	8.65975	8.66208	9.75371	10.04760	10.14790	10.29485	10.29718
1.301E-07	1.003E-07	8.032E-08	6.449E-08	3.010E-08	1.806E-08	1.220E-08	4.104E-09		
96.026	96.134	96.350	96.761	98.035	99.870	99.978	100.000		
10.37183	10.38349	10.40681	10.45113	10.58875	10.78702	10.79868	10.80101		

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (2)= 0.176

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (4)= 4.490

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 6.631
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(6)= 8.656

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
16	1	-11.07050	-16.79131	-1.25627
16	2	-13.12558	-15.66123	-0.86898
16	3	-13.77855	-16.38822	-1.20454
16	4	-14.34482	-17.30977	-1.74777
16	5	-14.68142	-17.55833	-1.91305
16	6	-14.95230	NUMXQ(K)= 6	
		2.406E-06	0.108	1.000
		1.683E-06	0.324	3.000
		1.447E-06	0.540	5.000
		1.163E-06	1.080	10.000
		1.005E-06	1.620	15.000
		8.720E-07	2.160	20.000
		7.778E-07	2.700	25.000
		7.062E-07	3.240	30.000
		6.492E-07	3.780	35.000
		6.024E-07	4.320	40.000
		5.516E-07	4.860	45.000
		5.043E-07	5.401	50.000
		4.641E-07	5.941	55.000
		4.297E-07	6.481	60.000
		3.977E-07	7.021	65.000
		3.691E-07	7.561	70.000
		3.439E-07	8.101	75.000
		3.216E-07	8.641	80.000
		1.481E-06	0.5	4.63

ANNUAL AVERAGE = 6.12E-09

K= 16 FIVEXQ(K)= 1.481E-06 FIVEPR(K)= 4.629

FUMIGATION X/Q AT THE BOUNDARY: 4.11E-05

EXPONENTIAL TERM AND FREQUENCIES

9.582E-01	5.200E-01	4.914E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
0.561	5.572	6.932	13.028	68.876	96.350	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 450 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE ALL SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN HT	EFF PLUME HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS						CA=1292.SQ.METERS					
A	1.7	0.01	1000.	0.	131.	187.3	449.8	0.0	0.000E+00	0.000E+00	2.147E-06
A	3.6	0.51	1000.	0.	131.	187.3	449.8	0.0	0.000E+00	0.000E+00	1.002E-06
A	6.0	0.53	1000.	0.	131.	187.3	449.8	0.0	0.000E+00	0.000E+00	6.013E-07
A	8.9	0.28	1000.	0.	131.	187.3	449.8	0.0	0.000E+00	0.000E+00	4.063E-07
A	11.6	0.06	1000.	0.	131.	187.3	449.8	0.0	0.000E+00	0.000E+00	3.132E-07
A	26.5	0.03	1000.	0.	131.	187.3	449.8	0.0	0.000E+00	0.000E+00	1.367E-07
B	1.7	0.05	1000.	0.	131.	140.9	110.2	0.0	0.000E+00	0.000E+00	5.976E-06
B	3.6	0.47	1000.	0.	131.	140.9	110.2	0.0	0.000E+00	0.000E+00	2.789E-06
B	6.0	0.54	1000.	0.	131.	140.9	110.2	0.0	0.000E+00	0.000E+00	1.673E-06
B	8.9	0.44	1000.	0.	131.	140.9	110.2	0.0	0.000E+00	0.000E+00	1.131E-06
B	11.6	0.12	1000.	0.	131.	140.9	110.2	0.0	0.000E+00	0.000E+00	8.715E-07
B	26.5	0.03	1000.	0.	131.	140.9	110.2	0.0	0.000E+00	0.000E+00	3.803E-07
C	1.7	0.08	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	4.272E-06
C	3.6	0.77	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06
C	6.0	1.33	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06
C	8.9	1.04	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07
C	11.6	0.30	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	6.230E-07
C	26.5	0.13	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	2.719E-07
D	0.2	0.00	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05
D	1.7	2.07	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06
D	3.6	9.39	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06
D	6.0	15.72	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07
D	8.9	12.23	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07
D	11.6	4.24	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07
D	26.5	1.39	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07
E	0.3	0.01	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06
E	1.8	1.97	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06
E	3.9	8.90	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07
E	6.5	13.85	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07
E	9.6	9.53	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07
E	12.5	1.29	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07
E	28.5	0.23	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08
F	0.3	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06
F	1.8	1.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07

Calculation No. PM-1055 Revision 0**Attachment J****Page 451 of 1411**

F	3.9	3.14	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07
F	6.5	3.52	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07
F	9.6	1.55	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07
F	12.5	0.16	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.003E-07
F	28.5	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.375E-08
G	1.8	0.43	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	1.17	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	1.14	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	0.31	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08
G	12.5	0.01	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	9.405E-09
G	28.5	0.00	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	4.104E-09

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 452 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

DIRECTION-INDEPENDENT (S.R.P 2.3.4) MODEL.

MINIMUM BOUNDARY DISTANCE = 1000.0 METERS.

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.
THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.
THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	5.976E-06	4.813E-06	4.272E-06	2.789E-06	2.224E-06	2.147E-06	1.994E-06	1.673E-06
0.005	0.019	0.065	0.077	0.154	0.625	2.692	2.699	3.464	4.007
0.00467	0.01866	0.06531	0.07697	0.15395	0.62512	2.69173	2.69873	3.46380	4.00728
1.262E-06	1.196E-06	1.131E-06	1.038E-06	1.002E-06	8.715E-07	8.082E-07	6.875E-07	6.230E-07	6.226E-07
5.974	7.303	7.744	17.135	17.648	17.769	18.812	19.822	20.125	35.844
5.97360	7.30313	7.74398	17.13472	17.64788	17.76917	18.81181	19.82179	20.12502	35.84391
6.013E-07	5.890E-07	4.207E-07	4.063E-07	3.803E-07	3.534E-07	3.243E-07	3.208E-07	3.132E-07	2.719E-07
36.376	45.272	57.501	57.779	57.814	71.660	75.900	79.042	79.101	79.226
36.37572	45.27197	57.50139	57.77896	57.81395	71.65981	75.90034	79.04225	79.10056	79.22652
2.388E-07	1.925E-07	1.841E-07	1.415E-07	1.367E-07	1.301E-07	1.003E-07	8.032E-08	6.449E-08	4.375E-08
88.753	92.270	93.565	94.952	94.980	96.534	96.695	96.923	97.357	97.369
88.75254	92.26999	93.56454	94.95239	94.98038	96.53385	96.69479	96.92338	97.35723	97.36890
3.010E-08	1.806E-08	1.220E-08	9.405E-09	4.104E-09					
98.542	99.678	99.986	99.995	100.000					
98.54215	99.67809	99.98598	99.99532	99.99998					

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS

Calculation No. PM-1055 Revision 0**Attachment J****Page 453 of 1411**

SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

3.291E-06	1.000	1.000
2.123E-06	3.000	3.000
1.752E-06	5.000	5.000
1.333E-06	10.000	10.000
1.108E-06	15.000	15.000
9.644E-07	20.000	20.000
8.604E-07	25.000	25.000
7.767E-07	30.000	30.000
7.063E-07	35.000	35.000
6.456E-07	40.000	40.000
5.918E-07	45.000	45.000
5.450E-07	50.000	50.000
5.019E-07	55.000	55.000
4.617E-07	60.000	60.000
4.234E-07	65.000	65.000
3.865E-07	70.000	70.000
3.502E-07	75.000	75.000
3.131E-07	80.000	80.000
2.716E-07	85.000	85.000

1.752E-06	5.0	5.00
-----------	-----	------

K= 17 FIVEXQ(K)= 1.752E-06 FIVEPR(K)= 5.000

FUMIGATION X/Q AT THE BOUNDARY: 4.11E-05

EXPONENTIAL TERM AND FREQUENCIES

9.582E-01	5.200E-01	4.914E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
1.416	5.059	6.718	16.125	61.163	96.935	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 454 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

FIVE PERCENT OVERALL SITE LIMIT

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	5.976E-06	4.813E-06	4.272E-06	2.789E-06	2.224E-06	2.147E-06	1.994E-06	1.673E-06
0.005	0.019	0.065	0.077	0.154	0.625	2.692	2.699	3.464	4.007
0.00467	0.01866	0.06531	0.07697	0.15395	0.62512	2.69173	2.69873	3.46380	4.00728
1.262E-06	1.196E-06	1.131E-06	1.038E-06	1.002E-06	8.715E-07	8.082E-07	6.875E-07	6.230E-07	6.226E-07
5.974	7.303	7.744	17.135	17.648	17.769	18.812	19.822	20.125	35.844
5.97360	7.30314	7.74398	17.13473	17.64789	17.76918	18.81182	19.82180	20.12503	35.84392
6.013E-07	5.890E-07	4.207E-07	4.063E-07	3.803E-07	3.534E-07	3.243E-07	3.208E-07	3.132E-07	2.719E-07
36.376	45.272	57.501	57.779	57.814	71.660	75.900	79.042	79.101	79.226
36.37573	45.27198	57.50141	57.77897	57.81396	71.65981	75.90034	79.04226	79.10056	79.22652
2.388E-07	1.925E-07	1.841E-07	1.415E-07	1.367E-07	1.301E-07	1.003E-07	8.032E-08	6.449E-08	4.375E-08
88.753	92.270	93.565	94.952	94.980	96.534	96.695	96.923	97.357	97.369
88.75255	92.26999	93.56455	94.95240	94.98039	96.53385	96.69479	96.92339	97.35722	97.36889
3.010E-08	1.806E-08	1.220E-08	9.405E-09	4.104E-09					
98.542	99.678	99.986	99.995	100.000					
98.54214	99.67807	99.98597	99.99530	99.99997					

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS

Calculation No. PM-1055 Revision 0

SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

Attachment J

Page 455 of 1411

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
18	1	-11.07050	-14.91189	-0.98310
18	2	-13.12558	-14.49210	-0.75206
18	3	-13.77855	-14.42565	-0.68203
18	4	-14.34482	-14.42255	-0.65587
18	5	-14.95230	-14.36453	-0.72771
18	6	-15.24768	NUMXQ(K) = 6	
		3.291E-06	1.000	1.000
		2.123E-06	3.000	3.000
		1.752E-06	5.000	5.000
		1.333E-06	10.000	10.000
		1.108E-06	15.000	15.000
		9.644E-07	20.000	20.000
		8.604E-07	25.000	25.000
		7.767E-07	30.000	30.000
		7.063E-07	35.000	35.000
		6.456E-07	40.000	40.000
		5.918E-07	45.000	45.000
		5.450E-07	50.000	50.000
		5.019E-07	55.000	55.000
		4.617E-07	60.000	60.000
		4.234E-07	65.000	65.000
		3.865E-07	70.000	70.000
		3.502E-07	75.000	75.000
		3.131E-07	80.000	80.000
		2.716E-07	85.000	85.000

1.752E-06	5.0	5.00
-----------	-----	------

K= 18 FIVEXQ(K)= 1.752E-06 FIVEPR(K)= 5.000

K	HIGHPR	PR	GRNDVT(K)
1	-2.84377	0.22292	6.21119
2	-1.84929	3.22081	3.52599
3	-2.67540	0.37321	3.10868
4	-2.60820	0.45510	3.53145
5	-2.57624	0.49942	4.76778
6	-2.66225	0.38811	4.27759
7	-2.92095	0.17449	5.37148
8	-3.04246	0.11733	5.07527
9	-2.98287	0.14279	10.00153
10	-3.00127	0.13443	5.86355
11	-3.07280	0.10604	4.96796
12	-3.07679	0.10463	4.95848
13	-3.10537	0.09503	7.82046
14	-3.04267	0.11725	8.73919
15	-3.03882	0.11876	10.97840
16	-2.94320	0.16243	10.80101

K	HOURS (K)	TOTHR
---	-----------	-------

Calculation No. PM-1055 Revision 0

Attachment J

Page 456 of 1411

1	19.52791	19.52791
2	282.14280	301.67070
3	32.69307	334.36380
4	39.86670	374.23050
5	43.74879	417.97930
6	33.99841	451.97770
7	15.28503	467.26270
8	10.27826	477.54100
9	12.50831	490.04930
10	11.77627	501.82560
11	9.28881	511.11440
12	9.16559	520.28000
13	8.32442	528.60440
14	10.27095	538.87530
15	10.40357	549.27890
16	14.22875	563.50760

K	FIVEXQ	SVANN	SLTIME	TIMINT	I	TIME	XQT
1	1.523E-06	3.669E-09	-0.7190	-12.8962	1	8.0	-14.39133
					2	16.0	-14.88969
					3	72.0	-15.97110
					4	624.0	-17.52374
2	1.447E-06	5.168E-09	-0.6720	-12.9800	1	8.0	-14.37744
					2	16.0	-14.84325
					3	72.0	-15.85402
					4	624.0	-17.30523
3	1.722E-06	5.961E-09	-0.6757	-12.8038	1	8.0	-14.20894
					2	16.0	-14.67731
					3	72.0	-15.69362
					4	624.0	-17.15280
4	1.957E-06	9.654E-09	-0.6335	-12.7051	1	8.0	-14.02238
					2	16.0	-14.46147
					3	72.0	-15.41427
					4	624.0	-16.78224
5	2.058E-06	1.269E-08	-0.6068	-12.6732	1	8.0	-13.93511
					2	16.0	-14.35574
					3	72.0	-15.26847
					4	624.0	-16.57893
6	1.829E-06	8.571E-09	-0.6396	-12.7686	1	8.0	-14.09861
					2	16.0	-14.54193
					3	72.0	-15.50391
					4	624.0	-16.88507
7	1.470E-06	4.998E-09	-0.6779	-12.9601	1	8.0	-14.36972
					2	16.0	-14.83961
					3	72.0	-15.85922
					4	624.0	-17.32314

Calculation No. PM-1055 Revision 0
Attachment J
Page 457 of 1411

8	1.288E-06	1.826E-09	-0.7822	-13.0203			
					1	8.0	-14.64684
					2	16.0	-15.18903
					3	72.0	-16.36553
					4	624.0	-18.05470
9	1.235E-06	5.230E-09	-0.6517	-13.1524			
					1	8.0	-14.50760
					2	16.0	-14.95935
					3	72.0	-15.93961
					4	624.0	-17.34702
10	1.255E-06	2.527E-09	-0.7403	-13.0752			
					1	8.0	-14.61465
					2	16.0	-15.12781
					3	72.0	-16.24134
					4	624.0	-17.84010
11	1.191E-06	2.183E-09	-0.7516	-13.1195			
					1	8.0	-14.68246
					2	16.0	-15.20343
					3	72.0	-16.33390
					4	624.0	-17.95698
12	1.117E-06	2.127E-09	-0.7470	-13.1871			
					1	8.0	-14.74044
					2	16.0	-15.25821
					3	72.0	-16.38173
					4	624.0	-17.99482
13	1.102E-06	4.675E-09	-0.6515	-13.2667			
					1	8.0	-14.62144
					2	16.0	-15.07303
					3	72.0	-16.05293
					4	624.0	-17.45983
14	1.084E-06	3.498E-09	-0.6840	-13.2612			
					1	8.0	-14.68360
					2	16.0	-15.15774
					3	72.0	-16.18660
					4	624.0	-17.66379
15	1.209E-06	2.035E-09	-0.7618	-13.0974			
					1	8.0	-14.68141
					2	16.0	-15.20943
					3	72.0	-16.35519
					4	624.0	-18.00022
16	1.481E-06	6.119E-09	-0.6547	-12.9687			
					1	8.0	-14.33008
					2	16.0	-14.78385
					3	72.0	-15.76851
					4	624.0	-17.18225
17	1.752E-06	1.269E-08	-0.5876	-12.8475			
					1	8.0	-14.06944
					2	16.0	-14.47676
					3	72.0	-15.36063
					4	624.0	-16.62964
18	1.752E-06	1.269E-08	-0.5876	-12.8475			
					1	8.0	-14.06944
					2	16.0	-14.47676

3	72.0	-15.36063
4	624.0	-16.62964

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 459 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

RELATIVE CONCENTRATION (X/Q) VALUES (SEC/CUBIC METER)

		VERSUS AVERAGING TIME					HOURS PER YEAR MAX 0-2 HR X/Q IS EXCEEDED		DOWNWIND SECTOR
DOWNWIND DISTANCE SECTOR	(METERS)	0-2 HOURS	0-8 HOURS	8-24 HOURS	1-4 DAYS	4-30 DAYS ANNUAL AVERAGE	IN SECTOR		
S	1000.	1.52E-06	5.62E-07	3.42E-07	1.16E-07	2.45E-08	3.67E-09	19.5	S
SSW	1000.	1.45E-06	5.70E-07	3.58E-07	1.30E-07	3.05E-08	5.17E-09	282.1	SSW
SW	1000.	1.72E-06	6.75E-07	4.22E-07	1.53E-07	3.55E-08	5.96E-09	32.7	SW
WSW	1000.	1.96E-06	8.13E-07	5.24E-07	2.02E-07	5.15E-08	9.65E-09	39.9	WSW
W	1000.	2.06E-06	8.87E-07	5.83E-07	2.34E-07	6.31E-08	1.27E-08	43.7	W
WNW	1000.	1.83E-06	7.53E-07	4.84E-07	1.85E-07	4.64E-08	8.57E-09	34.0	WNW
NW	1000.	1.47E-06	5.75E-07	3.59E-07	1.30E-07	3.00E-08	5.00E-09	15.3	NW
NNW	1000.	1.29E-06	4.35E-07	2.53E-07	7.81E-08	1.44E-08	1.83E-09	10.3	NNW
N	1000.	1.24E-06	5.01E-07	3.19E-07	1.20E-07	2.93E-08	5.23E-09	12.5	N
NNE	1000.	1.26E-06	4.50E-07	2.69E-07	8.84E-08	1.79E-08	2.53E-09	11.8	NNE
NE	1000.	1.19E-06	4.20E-07	2.50E-07	8.06E-08	1.59E-08	2.18E-09	9.3	NE
ENE	1000.	1.12E-06	3.97E-07	2.36E-07	7.68E-08	1.53E-08	2.13E-09	9.2	ENE
E	1000.	1.10E-06	4.47E-07	2.84E-07	1.07E-07	2.61E-08	4.67E-09	8.3	E
ESE	1000.	1.08E-06	4.20E-07	2.61E-07	9.34E-08	2.13E-08	3.50E-09	10.3	ESE
SE	1000.	1.21E-06	4.21E-07	2.48E-07	7.89E-08	1.52E-08	2.03E-09	10.4	SE
SSE	1000.	1.48E-06	5.98E-07	3.80E-07	1.42E-07	3.45E-08	6.12E-09	14.2	SSE
MAX X/Q		2.06E-06					TOTAL HOURS AROUND SITE:	563.5	
SRP 2.3.4	1000.	1.75E-06	7.76E-07	5.16E-07	2.13E-07	6.00E-08	1.27E-08		
SITE LIMIT		1.75E-06	7.76E-07	5.16E-07	2.13E-07	6.00E-08	1.27E-08		

THE FIVE-PERCENT-FOR-THE-ENTIRE-SITE X/Q IS LIMITING.

X/Q VALUES (SEC/CUBIC METER) FOR FUMIGATION AT THE BOUNDARY:

DOWNWIND DISTANCE FUMIGATION

SECTOR	(METERS)	X/Q
S	1000.	4.11E-05
SSW	1000.	4.11E-05
SW	1000.	4.11E-05
WSW	1000.	4.11E-05
W	1000.	4.11E-05
WNW	1000.	4.11E-05
NW	1000.	4.11E-05
NNW	1000.	4.11E-05
N	1000.	4.11E-05
NNE	1000.	4.11E-05
NE	1000.	4.11E-05
ENE	1000.	4.11E-05
E	1000.	4.11E-05

Calculation No. PM-1055 Revision 0**Attachment J****Page 460 of 1411**

ESE	1000.	4.11E-05
SE	1000.	4.11E-05
SSE	1000.	4.11E-05

****NOTE****: VALUES ON THIS PAGE ARE APPROXIMATIONS ONLY.
CHECK THE REASONABLENESS OF THE ENVELOPES
COMPUTED FOR THE 0-2 HOUR VALUES. FOR ANY
FAULTY ENVELOPES, ADJUST THE ABOVE VALUES.

Off Gas Stack to Control Room (Tower 2 320' wind and 316'-33' Delta T Stability Class; distances of 1500 m and 2000 m)

10.1-96.3 meters

7 1

0 0 0 2 6 5 0

0.	0.	0.	0.	3.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
6.	9.	23.	39.	87.	44.	4.	2.	0.	2.	2.	0.	1.	0.	0.	1.
0.	9.	20.	29.	46.	44.	20.	2.	12.	7.	5.	7.	8.	9.	2.	8.
2.	4.	9.	18.	7.	3.	13.	0.	7.	3.	2.	3.	21.	9.	3.	15.
2.	2.	0.	1.	0.	1.	0.	0.	0.	0.	0.	2.	14.	2.	0.	1.
0.	0.	0.	0.	0.	1.	0.	0.	0.	0.	0.	2.	2.	5.	1.	1.
0.	2.	2.	9.	5.	0.	2.	0.	0.	0.	0.	0.	0.	0.	0.	0.
13.	23.	18.	25.	56.	29.	10.	3.	3.	4.	3.	1.	4.	3.	4.	3.
4.	15.	13.	15.	12.	25.	27.	8.	25.	14.	13.	8.	21.	9.	2.	22.
10.	3.	2.	1.	1.	2.	8.	8.	31.	9.	6.	19.	27.	20.	9.	33.
1.	2.	1.	0.	0.	1.	1.	1.	5.	2.	1.	2.	12.	14.	4.	5.
0.	0.	0.	0.	0.	0.	0.	0.	1.	0.	0.	1.	6.	7.	0.	0.
0.	5.	12.	15.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
31.	22.	28.	37.	50.	65.	14.	12.	19.	5.	7.	3.	5.	5.	3.	22.
42.	19.	9.	17.	14.	26.	62.	22.	72.	37.	30.	26.	42.	26.	26.	100.
18.	8.	4.	3.	3.	4.	11.	10.	67.	24.	21.	31.	56.	59.	35.	93.
4.	1.	0.	0.	1.	2.	0.	1.	9.	0.	4.	4.	29.	30.	28.	17.
1.	4.	0.	0.	0.	0.	0.	0.	1.	0.	1.	1.	13.	27.	6.	0.
59.	58.	108.	119.	115.	86.	45.	35.	41.	23.	32.	15.	26.	38.	36.	50.
330.	211.	238.	336.	435.	304.	339.	243.	300.	191.	155.	128.	141.	97.	193.	385.
521.	349.	251.	278.	331.	308.	478.	466.	708.	425.	287.	211.	301.	355.	542.	928.
396.	154.	85.	67.	132.	140.	161.	118.	482.	166.	126.	190.	395.	674.	1039.	918.
73.	27.	13.	11.	32.	26.	14.	11.	99.	16.	16.	22.	225.	448.	543.	242.
15.	7.	12.	2.	8.	2.	7.	7.	29.	9.	3.	6.	90.	151.	184.	63.
60.	44.	36.	61.	60.	60.	61.	59.	70.	56.	59.	54.	54.	36.	39.	34.
235.	164.	150.	219.	283.	200.	345.	311.	435.	320.	281.	187.	173.	138.	170.	203.
367.	201.	156.	101.	161.	257.	349.	443.	891.	577.	354.	297.	395.	354.	519.	514.
156.	38.	26.	11.	58.	63.	98.	165.	516.	228.	216.	271.	536.	583.	651.	468.
23.	8.	8.	4.	12.	21.	16.	11.	64.	19.	18.	30.	78.	111.	89.	43.
7.	1.	1.	1.	20.	4.	12.	2.	6.	4.	2.	1.	9.	12.	6.	10.
26.	19.	22.	26.	31.	23.	28.	32.	23.	32.	32.	33.	30.	28.	26.	22.
99.	38.	34.	29.	34.	52.	81.	90.	134.	141.	156.	117.	85.	66.	94.	97.
81.	25.	13.	8.	13.	24.	48.	79.	130.	111.	157.	177.	198.	140.	178.	126.
4.	1.	1.	0.	0.	2.	7.	8.	44.	23.	39.	109.	168.	138.	90.	32.
1.	0.	0.	0.	0.	0.	0.	0.	0.	3.	0.	18.	24.	18.	0.	5.
0.	0.	0.	0.	4.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
11.	14.	11.	10.	13.	5.	4.	9.	17.	9.						

Calculation No. PM-1055 Revision 0

Attachment J

Page 462 of 1411

[illegible]

PAVAN Output**Off Gas Stack to Control Room (Tower 2 320' wind and 316'-33' Delta T Stability Class; distances of 1500 m and 2000 m)**

Copyright (c) 1990 Ergo Computing, Inc. for Lahey

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

RUN DATE: 12/29/02

PRINTOUT OF INPUT CARDS

```
1      00010 01111 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 2      Peach Bottom
Stack Release
3      97.5 meters          10.1-96.3 meters
4
5      Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T          6          7 42872      1
7      0.500 2584.000      54.300 131.400      97.500
8      0.000 0.000 0.000 2.000 6.000 5.000 0.000
9      0.000 0.000 0.000 0.000 3.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
9      6.000 9.000 23.000 39.000 87.000 44.000 4.000 2.000 0.000 2.000 2.000 0.000 1.000 0.000 0.000 0.000 1.000
9      0.000 9.000 20.000 29.000 46.000 44.000 20.000 2.000 12.000 7.000 5.000 7.000 8.000 9.000 2.000 8.000
9      2.000 4.000 9.000 18.000 7.000 3.000 13.000 0.000 7.000 3.000 2.000 3.000 21.000 9.000 3.000 15.000
9      2.000 2.000 0.000 1.000 0.000 1.000 0.000 0.000 0.000 0.000 0.000 2.000 14.000 2.000 0.000 1.000
9      0.000 0.000 0.000 0.000 0.000 1.000 0.000 0.000 0.000 0.000 0.000 2.000 2.000 5.000 1.000 1.000
9      0.000 2.000 2.000 9.000 5.000 0.000 2.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
9      13.000 23.000 18.000 25.000 56.000 29.000 10.000 3.000 3.000 4.000 3.000 1.000 4.000 3.000 4.000 3.000
9      4.000 15.000 13.000 15.000 12.000 25.000 27.000 8.000 25.000 14.000 13.000 8.000 21.000 9.000 2.000 22.000
9      10.000 3.000 2.000 1.000 1.000 2.000 8.000 8.000 31.000 9.000 6.000 19.000 27.000 20.000 9.000 33.000
9      1.000 2.000 1.000 0.000 0.000 1.000 1.000 1.000 5.000 2.000 1.000 2.000 12.000 14.000 4.000 5.000
9      0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 1.000 0.000 0.000 1.000 6.000 7.000 0.000 0.000
9      0.000 5.000 12.000 15.000 1.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
9      31.000 22.000 28.000 37.000 50.000 65.000 14.000 12.000 19.000 5.000 7.000 3.000 5.000 5.000 3.000 22.000
9      42.000 19.000 9.000 17.000 14.000 26.000 62.000 22.000 72.000 37.000 30.000 26.000 42.000 26.000 26.000 100.000
9      18.000 8.000 4.000 3.000 3.000 4.000 11.000 10.000 67.000 24.000 21.000 31.000 56.000 59.000 35.000 93.000
9      4.000 1.000 0.000 0.000 1.000 2.000 0.000 1.000 9.000 0.000 4.000 4.000 29.000 30.000 28.000 17.000
9      1.000 4.000 0.000 0.000 0.000 0.000 0.000 0.000 1.000 0.000 1.000 1.000 13.000 27.000 6.000 0.000
9      59.000 58.000 108.000 119.000 115.000 86.000 45.000 35.000 41.000 23.000 32.000 15.000 26.000 38.000 36.000 50.000
9      330.000 211.000 238.000 336.000 435.000 304.000 339.000 243.000 300.000 191.000 155.000 128.000 141.000 97.000 193.000 385.000
9      521.000 349.000 251.000 278.000 331.000 308.000 478.000 466.000 708.000 425.000 287.000 211.000 301.000 355.000 542.000 928.000
9      396.000 154.000 85.000 67.000 132.000 140.000 161.000 118.000 482.000 166.000 126.000 190.000 395.000 674.000 *****918.000
9      73.000 27.000 13.000 11.000 32.000 26.000 14.000 11.000 99.000 16.000 16.000 22.000 225.000 448.000 543.000 242.000
9      15.000 7.000 12.000 2.000 8.000 2.000 7.000 7.000 29.000 9.000 3.000 6.000 90.000 151.000 184.000 63.000
9      60.000 44.000 36.000 61.000 60.000 60.000 61.000 59.000 70.000 56.000 59.000 54.000 54.000 36.000 39.000 34.000
9      235.000 164.000 150.000 219.000 283.000 200.000 345.000 311.000 435.000 320.000 281.000 187.000 173.000 138.000 170.000 203.000
9      367.000 201.000 156.000 101.000 161.000 257.000 349.000 443.000 891.000 577.000 354.000 297.000 395.000 354.000 519.000 514.000
9      156.000 38.000 26.000 11.000 58.000 63.000 98.000 165.000 516.000 228.000 216.000 271.000 536.000 583.000 651.000 468.000
9      23.000 8.000 8.000 4.000 12.000 21.000 16.000 11.000 64.000 19.000 18.000 30.000 78.000 111.000 89.000 43.000
9      7.000 1.000 1.000 1.000 20.000 4.000 12.000 2.000 6.000 4.000 2.000 1.000 9.000 12.000 6.000 10.000
9      26.000 19.000 22.000 26.000 31.000 23.000 28.000 32.000 23.000 32.000 32.000 33.000 30.000 28.000 26.000 22.000
9      99.000 38.000 34.000 29.000 34.000 52.000 81.000 90.000 134.000 141.000 156.000 117.000 85.000 66.000 94.000 97.000
9      81.000 25.000 13.000 8.000 13.000 24.000 48.000 79.000 130.000 111.000 157.000 177.000 198.000 140.000 178.000 126.000
```


Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 465 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION

ATMOSPHERIC STABILITY CLASS A

WIND SPEED (M/S)

TOWER RELEASE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
0.22 0.24	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.56 1.69	0.000	0.000	0.000	0.000	0.000	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.007
3.35 3.61	0.014	0.021	0.054	0.091	0.203	0.103	0.009	0.005	0.000	0.005	0.005	0.000	0.002	0.000	0.000	0.002	0.513
5.59 6.02	0.000	0.021	0.047	0.068	0.107	0.103	0.047	0.005	0.028	0.016	0.012	0.016	0.019	0.021	0.005	0.019	0.532
8.27 8.91	0.005	0.009	0.021	0.042	0.016	0.007	0.030	0.000	0.016	0.007	0.005	0.007	0.049	0.021	0.007	0.035	0.278
10.73 11.56	0.005	0.005	0.000	0.002	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.005	0.033	0.005	0.000	0.002	0.058
24.59 26.49	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.005	0.005	0.012	0.002	0.002	0.028
TOTAL	0.02	0.06	0.12	0.20	0.33	0.22	0.09	0.01	0.04	0.03	0.02	0.03	0.11	0.06	0.01	0.06	1.42

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION

ATMOSPHERIC STABILITY CLASS B

WIND SPEED (M/S)

TOWER RELEASE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
0.22 0.24	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.56 1.69	0.000	0.005	0.005	0.021	0.012	0.000	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.047
3.35 3.61	0.030	0.054	0.042	0.058	0.131	0.068	0.023	0.007	0.007	0.009	0.007	0.002	0.009	0.007	0.009	0.007	0.471
5.59 6.02	0.009	0.035	0.030	0.035	0.028	0.058	0.063	0.019	0.058	0.033	0.030	0.019	0.049	0.021	0.005	0.051	0.543
8.27 8.91	0.023	0.007	0.005	0.002	0.002	0.005	0.019	0.019	0.072	0.021	0.014	0.044	0.063	0.047	0.021	0.077	0.441
10.73 11.56	0.002	0.005	0.002	0.000	0.000	0.002	0.002	0.002	0.012	0.005	0.002	0.005	0.028	0.033	0.009	0.012	0.121
24.59 26.49	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.002	0.014	0.016	0.000	0.000	0.035
TOTAL	0.07	0.10	0.08	0.12	0.17	0.13	0.11	0.05	0.15	0.07	0.05	0.07	0.16	0.12	0.04	0.15	1.66

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION

ATMOSPHERIC STABILITY CLASS C

WIND SPEED (M/S)

TOWER RELEASE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
0.22 0.24	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.56 1.69	0.000	0.012	0.028	0.035	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.077
3.35 3.61	0.072	0.051	0.065	0.086	0.117	0.152	0.033	0.028	0.044	0.012	0.016	0.007	0.012	0.012	0.007	0.051	0.765
5.59 6.02	0.098	0.044	0.021	0.040	0.033	0.061	0.145	0.051	0.168	0.086	0.070	0.061	0.098	0.061	0.061	0.233	1.330
8.27 8.91	0.042	0.019	0.009	0.007	0.007	0.009	0.026	0.023	0.156	0.056	0.049	0.072	0.131	0.138	0.082	0.217	1.043
10.73 11.56	0.009	0.002	0.000	0.000	0.002	0.005	0.000	0.002	0.021	0.000	0.009	0.009	0.068	0.070	0.065	0.040	0.303
24.59 26.49	0.002	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.002	0.002	0.030	0.063	0.014	0.000	0.126
TOTAL	0.22	0.14	0.12	0.17	0.16	0.23	0.20	0.10	0.39	0.15	0.15	0.15	0.34	0.34	0.23	0.54	3.64

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION

ATMOSPHERIC STABILITY CLASS D

WIND SPEED (M/S)

TOWER RELEASE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
0.22 0.24	0.000	0.000	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.005
1.56 1.69	0.138	0.135	0.252	0.278	0.268	0.201	0.105	0.082	0.096	0.054	0.075	0.035	0.061	0.089	0.084	0.117	2.067

Calculation No. PM-1055 Revision 0
Attachment J
Page 466 of 1411

3.35	3.61	0.770	0.492	0.555	0.784	1.015	0.709	0.791	0.567	0.700	0.446	0.362	0.299	0.329	0.226	0.450	0.898	9.391
5.59	6.02	1.215	0.814	0.585	0.648	0.772	0.718	1.115	1.087	1.651	0.991	0.669	0.492	0.702	0.828	1.264	2.165	15.719
8.27	8.91	0.924	0.359	0.198	0.156	0.308	0.327	0.376	0.275	1.124	0.387	0.294	0.443	0.921	1.572	2.423	2.141	12.229
10.73	11.56	0.170	0.063	0.030	0.026	0.075	0.061	0.033	0.026	0.231	0.037	0.037	0.051	0.525	1.045	1.267	0.564	4.241
24.59	26.49	0.035	0.016	0.028	0.005	0.019	0.005	0.016	0.016	0.068	0.021	0.007	0.014	0.210	0.352	0.429	0.147	1.388
TOTAL		3.25	1.88	1.65	1.90	2.46	2.02	2.44	2.05	3.87	1.94	1.44	1.33	2.75	4.11	5.92	6.03	45.04

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION
WIND SPEED (M/S)
ATMOSPHERIC STABILITY CLASS E

TOWER RELEASE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
0.22 0.26	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.014
1.56 1.82	0.140	0.103	0.084	0.142	0.140	0.140	0.142	0.138	0.163	0.131	0.138	0.126	0.126	0.084	0.091	0.079	1.966
3.35 3.89	0.548	0.383	0.350	0.511	0.660	0.467	0.805	0.725	1.015	0.746	0.655	0.436	0.404	0.322	0.397	0.474	8.896
5.59 6.49	0.856	0.469	0.364	0.236	0.376	0.599	0.814	1.033	2.078	1.346	0.826	0.693	0.921	0.826	1.211	1.199	13.846
8.27 9.60	0.364	0.089	0.061	0.026	0.135	0.147	0.229	0.385	1.204	0.532	0.504	0.632	1.250	1.360	1.518	1.092	9.526
10.73 12.46	0.054	0.019	0.019	0.009	0.028	0.049	0.037	0.026	0.149	0.044	0.042	0.070	0.182	0.259	0.208	0.100	1.295
24.59 28.54	0.016	0.002	0.002	0.002	0.047	0.009	0.028	0.005	0.014	0.009	0.005	0.002	0.021	0.028	0.014	0.023	0.229
TOTAL	1.98	1.06	0.88	0.93	1.39	1.41	2.06	2.31	4.62	2.81	2.17	1.96	2.90	2.88	3.44	2.97	35.77

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION
WIND SPEED (M/S)
ATMOSPHERIC STABILITY CLASS F

TOWER RELEASE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
0.22 0.26	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.012
1.56 1.82	0.061	0.044	0.051	0.061	0.072	0.054	0.065	0.075	0.054	0.075	0.075	0.077	0.070	0.065	0.061	0.051	1.010
3.35 3.89	0.231	0.089	0.079	0.068	0.079	0.121	0.189	0.210	0.313	0.329	0.364	0.273	0.198	0.154	0.219	0.226	3.142
5.59 6.49	0.189	0.058	0.030	0.019	0.030	0.056	0.112	0.184	0.303	0.259	0.366	0.413	0.462	0.327	0.415	0.294	3.517
8.27 9.60	0.009	0.002	0.002	0.000	0.000	0.005	0.016	0.019	0.103	0.054	0.091	0.254	0.392	0.322	0.210	0.075	1.553
10.73 12.46	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.007	0.000	0.042	0.056	0.042	0.000	0.012	0.161
24.59 28.54	0.000	0.000	0.000	0.000	0.009	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.012
TOTAL	0.49	0.19	0.16	0.15	0.19	0.24	0.38	0.49	0.77	0.72	0.90	1.06	1.18	0.91	0.91	0.66	9.41

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION
WIND SPEED (M/S)
ATMOSPHERIC STABILITY CLASS G

TOWER RELEASE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
0.22 0.26	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.56 1.82	0.026	0.033	0.026	0.023	0.030	0.012	0.009	0.021	0.040	0.021	0.014	0.042	0.030	0.033	0.030	0.044	0.434
3.35 3.89	0.110	0.044	0.051	0.044	0.030	0.014	0.065	0.023	0.079	0.072	0.084	0.079	0.093	0.082	0.163	0.138	1.173
5.59 6.49	0.037	0.012	0.009	0.005	0.005	0.005	0.019	0.014	0.023	0.049	0.119	0.163	0.161	0.103	0.215	0.198	1.136
8.27 9.60	0.002	0.000	0.000	0.000	0.000	0.000	0.002	0.002	0.005	0.002	0.019	0.061	0.091	0.091	0.021	0.012	0.308
10.73 12.46	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.002	0.005	0.000	0.000	0.009
24.59 28.54	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.002	0.005
TOTAL	0.17	0.09	0.09	0.07	0.07	0.03	0.10	0.06	0.15	0.14	0.24	0.35	0.38	0.31	0.43	0.39	3.06

WIND MEASURED AT 97.5 METERS.

WIND SPEED CORRECTED TO THE RELEASE HEIGHT OF 131.4 METERS.

OVERALL WIND DIRECTION FREQUENCY

WIND DIRECTION:	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
FREQUENCY:	6.2	3.5	3.1	3.5	4.8	4.3	5.4	5.1	10.0	5.9	5.0	5.0	7.8	8.7	11.0	10.8

OVERALL WIND SPEED FREQUENCY AS MEASURED ON THE TOWER:

MAX.WIND SPEED (M/S):	0.224	1.565	3.353	5.588	8.270	10.729	24.587
WIND SPEED FREQUENCY:	0.03	5.61	24.35	36.62	25.38	6.19	1.82

BUILDING AND RELEASE CHARACTERISTICS:

RELEASE HEIGHT:	131.40 METERS
MIXING VOLUME COEFFICIENT:	0.50
BUILDING CROSS-SECTIONAL AREA:	2584.00 SQUARE METERS

BOUNDARY DISTANCES (METERS) FROM THE SOURCE FOR EACH DOWNWIND SECTOR:

DOWNWIND SECTOR	S	SSW	SW	WSW	W	WNW	NW	NNW	N	NNE	NE	ENE	E	ESE	SE	SSE
BOUNDARY 1	1500.	1500.	1500.	1500.	1500.	1500.	1500.	1500.	1500.	1500.	1500.	1500.	1500.	1500.	1500.	1500.
BOUNDARY 2	2000.	2000.	2000.	2000.	2000.	2000.	2000.	2000.	2000.	2000.	2000.	2000.	2000.	2000.	2000.	2000.

DISTANCES AND TERRAIN HEIGHTS (IN METERS) AS A FUNCTION OF THE DOWNWIND SECTOR:

SECTOR	S	SSW	SW	WSW	W	WNW	NW	NNW	N	NNE	NE	ENE	E	ESE	SE	SSE
DISTANCE	500.	500.	500.	500.	500.	500.	500.	500.	500.	500.	500.	500.	500.	500.	500.	500.
ELEVATION	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

THE CONVERSION FACTOR APPLIED TO THE WIND SPEED CLASSES IS 0.447

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 468 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

WINDSPEEDS ADJUSTED TO 131.4 METERS.

PERCENT OF THE TIME A GIVEN WINDSPEED IS LOWER:

WINDSPEED (METER/SEC)	CUMULATIVE FREQUENCY (PERCENT)
0.24	0.00
0.26	0.03
1.69	2.23
1.82	5.64
3.61	16.78
3.89	29.99
6.02	48.11
6.49	66.61
8.91	80.60
9.60	91.99
11.56	96.71
12.46	98.18
26.49	99.76
28.54	100.00

WINDSPEED (INTERPOLATED) (METER/SEC)	CUMULATIVE FREQUENCY (PERCENT)
0.26	0.03
1.77	5.64
3.76	29.99
6.26	66.61
9.22	91.99
11.77	98.18
26.77	100.00

LOG-NORMAL INTERPOLATION PERCENTILES

WINDSPEED (METER/SEC)	CUMULATIVE FREQUENCY (PERCENT)
0.81	1.00
1.30	3.00
1.66	5.00
2.19	10.00
2.61	15.00
3.00	20.00

3.38	25.00
3.76	30.00
4.05	35.00
4.35	40.00
4.66	45.00
4.98	50.00
5.32	55.00
5.70	60.00
6.11	65.00
6.50	70.00
6.90	75.00
7.37	80.00
8.11	85.00
8.78	90.00

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 470 of 1411

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE S SECTOR.

STABILITY CLASS	WINDSPEED METER/SEC	FREQUENCY PERCENT	DISTANCE METERS	TERRAIN METERS	HT EFF METERS	PLUME HT METERS	SIGMA-Y METERS	SIGMA-Z METERS	MEANDER-SY METERS	** CHI/Q VALUES (SEC/CUBIC METER)	MEANDER	BLDG WAKE	USED
AT 131.4 METERS										CA=1292.SQ.METERS			
A	3.6	0.23	1500.	0.	131.	270.1	1000.0	0.0	0.000E+00	0.000E+00	3.234E-07		
A	8.9	0.08	1500.	0.	131.	270.1	1000.0	0.0	0.000E+00	0.000E+00	1.311E-07		
A	11.6	0.08	1500.	0.	131.	270.1	1000.0	0.0	0.000E+00	0.000E+00	1.011E-07		
B	3.6	0.49	1500.	0.	131.	203.2	170.9	0.0	0.000E+00	0.000E+00	1.888E-06		
B	6.0	0.15	1500.	0.	131.	203.2	170.9	0.0	0.000E+00	0.000E+00	1.133E-06		
B	8.9	0.38	1500.	0.	131.	203.2	170.9	0.0	0.000E+00	0.000E+00	7.655E-07		
B	11.6	0.04	1500.	0.	131.	203.2	170.9	0.0	0.000E+00	0.000E+00	5.901E-07		
C	3.6	1.16	1500.	0.	131.	154.3	88.4	0.0	0.000E+00	0.000E+00	2.141E-06		
C	6.0	1.58	1500.	0.	131.	154.3	88.4	0.0	0.000E+00	0.000E+00	1.285E-06		
C	8.9	0.68	1500.	0.	131.	154.3	88.4	0.0	0.000E+00	0.000E+00	8.679E-07		
C	11.6	0.15	1500.	0.	131.	154.3	88.4	0.0	0.000E+00	0.000E+00	6.690E-07		
C	26.5	0.04	1500.	0.	131.	154.3	88.4	0.0	0.000E+00	0.000E+00	2.919E-07		
D	0.2	0.01	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05		
D	1.7	2.22	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06		
D	3.6	12.39	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06		
D	6.0	19.57	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07		
D	8.9	14.87	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07		
D	11.6	2.74	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07		
D	26.5	0.56	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07		
E	0.3	0.02	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06		
E	1.8	2.25	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06		
E	3.9	8.83	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07		
E	6.5	13.78	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07		
E	9.6	5.86	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07		
E	12.5	0.86	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07		
E	28.5	0.26	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08		
F	0.3	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06		
F	1.8	0.98	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07		
F	3.9	3.72	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07		
F	6.5	3.04	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07		
F	9.6	0.15	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07		
F	12.5	0.04	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.003E-07		
G	1.8	0.41	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08		

G	3.9	1.77	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	0.60	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	0.04	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 472 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1 96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

S SECTOR BOUNDARY DISTANCE = 1500.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.
THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.
THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.224E-06	2.141E-06	1.888E-06	1.285E-06	1.262E-06	1.133E-06	1.038E-06
0.005	0.021	0.032	2.248	3.412	3.900	5.478	7.731	7.881	20.274
0.00031	0.00131	0.00201	0.13963	0.21193	0.24226	0.34022	0.48017	0.48950	1.25924
8.679E-07	7.655E-07	6.875E-07	6.690E-07	6.226E-07	5.901E-07	5.890E-07	4.207E-07	3.534E-07	3.243E-07
20.950	21.325	22.302	22.452	42.017	42.055	50.880	65.751	79.533	82.275
1.30122	1.32455	1.38519	1.39452	2.60977	2.61210	3.16025	4.08393	4.93996	5.11024
3.234E-07	3.208E-07	2.919E-07	2.388E-07	1.925E-07	1.841E-07	1.415E-07	1.311E-07	1.301E-07	1.011E-07
82.500	86.218	86.255	92.114	95.156	96.019	96.583	96.658	96.808	96.883
5.12423	5.35515	5.35748	5.72136	5.91029	5.96394	5.99893	6.00359	6.01292	6.01759
1.003E-07	8.032E-08	6.449E-08	3.010E-08	1.806E-08	1.220E-08				
96.921	97.183	97.597	99.362	99.962	100.000				
6.01992	6.03625	6.06190	6.17153	6.20885	6.21119				

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (2)= 1.258

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (3)= 3.157

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 5.351
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 5.718

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
1	1	-11.07050	-16.43803	-1.18780
1	2	-13.77855	-17.10771	-1.48689
1	3	-14.34482	-18.92479	-2.46478
1	4	-14.95230	-29.48361	-9.01615
1	5	-15.24768	NUMXQ(K)= 5	
		3.364E-06	0.062	1.000
		2.277E-06	0.186	3.000
		1.874E-06	0.311	5.000
		1.415E-06	0.621	10.000
		1.188E-06	0.932	15.000
		1.044E-06	1.242	20.000
		9.183E-07	1.553	25.000
		8.232E-07	1.863	30.000
		7.487E-07	2.174	35.000
		6.884E-07	2.484	40.000
		6.383E-07	2.795	45.000
		5.958E-07	3.106	50.000
		5.405E-07	3.416	55.000
		4.903E-07	3.727	60.000
		4.476E-07	4.037	65.000
		4.109E-07	4.348	70.000
		3.790E-07	4.658	75.000
		3.511E-07	4.969	80.000
		3.264E-07	5.280	85.000
		2.650E-07	5.590	90.000
		1.549E-06	0.5	8.05

ANNUAL AVERAGE = 5.78E-09

K= 1 FIVEXQ(K)= 1.549E-06 FIVEPR(K)= 8.050

FUMIGATION X/Q AT THE BOUNDARY: 2.85E-05

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	7.442E-01	3.613E-01	3.314E-01	2.419E-01	2.081E-01	1.693E-02
0.376	1.427	9.362	12.967	65.322	97.183	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 474 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE SSW SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	3.6	0.60	1500.	0.	131.	270.1	1000.0	0.0	0.000E+00	0.000E+00	3.234E-07			
A	6.0	0.60	1500.	0.	131.	270.1	1000.0	0.0	0.000E+00	0.000E+00	1.940E-07			
A	8.9	0.26	1500.	0.	131.	270.1	1000.0	0.0	0.000E+00	0.000E+00	1.311E-07			
A	11.6	0.13	1500.	0.	131.	270.1	1000.0	0.0	0.000E+00	0.000E+00	1.011E-07			
B	1.7	0.13	1500.	0.	131.	203.2	170.9	0.0	0.000E+00	0.000E+00	4.046E-06			
B	3.6	1.52	1500.	0.	131.	203.2	170.9	0.0	0.000E+00	0.000E+00	1.888E-06			
B	6.0	0.99	1500.	0.	131.	203.2	170.9	0.0	0.000E+00	0.000E+00	1.133E-06			
B	8.9	0.20	1500.	0.	131.	203.2	170.9	0.0	0.000E+00	0.000E+00	7.655E-07			
B	11.6	0.13	1500.	0.	131.	203.2	170.9	0.0	0.000E+00	0.000E+00	5.901E-07			
C	1.7	0.33	1500.	0.	131.	154.3	88.4	0.0	0.000E+00	0.000E+00	4.588E-06			
C	3.6	1.46	1500.	0.	131.	154.3	88.4	0.0	0.000E+00	0.000E+00	2.141E-06			
C	6.0	1.26	1500.	0.	131.	154.3	88.4	0.0	0.000E+00	0.000E+00	1.285E-06			
C	8.9	0.53	1500.	0.	131.	154.3	88.4	0.0	0.000E+00	0.000E+00	8.679E-07			
C	11.6	0.07	1500.	0.	131.	154.3	88.4	0.0	0.000E+00	0.000E+00	6.690E-07			
C	26.5	0.26	1500.	0.	131.	154.3	88.4	0.0	0.000E+00	0.000E+00	2.919E-07			
D	0.2	0.01	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05			
D	1.7	3.84	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06			
D	3.6	13.96	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06			
D	6.0	23.09	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07			
D	8.9	10.19	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07			
D	11.6	1.79	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07			
D	26.5	0.46	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07			
E	0.3	0.02	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06			
E	1.8	2.91	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06			
E	3.9	10.85	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07			
E	6.5	13.30	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07			
E	9.6	2.51	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07			
E	12.5	0.53	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07			
E	28.5	0.07	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08			
F	0.3	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06			
F	1.8	1.26	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07			
F	3.9	2.51	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07			
F	6.5	1.65	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07			
F	9.6	0.07	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07			

G	1.8	0.93	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	1.26	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	0.33	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 476 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

SSW SECTOR BOUNDARY DISTANCE = 1500.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	4.588E-06	4.046E-06	2.224E-06	2.141E-06	1.888E-06	1.285E-06	1.262E-06
0.009	0.029	0.044	0.375	0.507	4.344	5.799	7.321	8.578	11.488
0.00031	0.00104	0.00155	0.01321	0.01788	0.15316	0.20448	0.25813	0.30244	0.40507
1.133E-06	1.038E-06	8.679E-07	7.655E-07	6.875E-07	6.690E-07	6.226E-07	5.901E-07	5.890E-07	4.207E-07
12.481	26.439	26.968	27.166	28.423	28.489	51.577	51.709	62.558	72.745
0.44006	0.93222	0.95089	0.95788	1.00220	1.00453	1.81858	1.82325	2.20578	2.56499
3.534E-07	3.243E-07	3.234E-07	3.208E-07	2.919E-07	2.388E-07	1.940E-07	1.925E-07	1.841E-07	1.415E-07
86.042	87.828	88.423	90.937	91.202	93.716	94.311	95.965	96.494	96.957
3.03383	3.09681	3.11780	3.20644	3.21577	3.30440	3.32539	3.38371	3.40237	3.41870
1.311E-07	1.301E-07	1.011E-07	8.032E-08	6.449E-08	3.010E-08	1.806E-08			
97.222	97.288	97.420	97.486	98.412	99.669	100.000			
3.42803	3.43036	3.43502	3.43736	3.47001	3.51433	3.52599			

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.204
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 0.931

Calculation No. PM-1055 Revision 0

Attachment J

Page 477 of 1411

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (4)= 2.203
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (5)= 3.031

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
2	1	-11.07050	-16.50457	-1.20156
2	2	-13.05427	-17.06529	-1.39683
2	3	-13.77855	-17.70237	-1.66758
2	4	-14.34482	-21.84322	-3.72420
2	5	-14.85564	NUMXQ(K)= 5	
		3.981E-06	0.035	1.000
		2.730E-06	0.106	3.000
		2.264E-06	0.176	5.000
		1.673E-06	0.353	10.000
		1.379E-06	0.529	15.000
		1.197E-06	0.705	20.000
		1.068E-06	0.881	25.000
		9.588E-07	1.058	30.000
		8.692E-07	1.234	35.000
		7.971E-07	1.410	40.000
		7.374E-07	1.587	45.000
		6.871E-07	1.763	50.000
		6.439E-07	1.939	55.000
		6.064E-07	2.116	60.000
		5.547E-07	2.292	65.000
		4.934E-07	2.468	70.000
		4.419E-07	2.644	75.000
		3.981E-07	2.821	80.000
		3.606E-07	2.997	85.000
		1.417E-06	0.5	14.18

ANNUAL AVERAGE = 5.71E-09

K= 2 FIVEXQ(K)= 1.417E-06 FIVEPR(K)=14.180

FUMIGATION X/Q AT THE BOUNDARY: 2.85E-05

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	7.442E-01	3.613E-01	3.314E-01	2.419E-01	2.081E-01	1.693E-02
1.588	4.565	10.070	13.973	67.300	97.486	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 478 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE SW SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS			METERS		METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS														
CA=1292.SQ.METERS														
A	3.6	1.73	1500.	0.			131.		270.1	1000.0	0.0	0.000E+00	0.000E+00	3.234E-07
A	6.0	1.50	1500.	0.			131.		270.1	1000.0	0.0	0.000E+00	0.000E+00	1.940E-07
A	8.9	0.68	1500.	0.			131.		270.1	1000.0	0.0	0.000E+00	0.000E+00	1.311E-07
B	1.7	0.15	1500.	0.			131.		203.2	170.9	0.0	0.000E+00	0.000E+00	4.046E-06
B	3.6	1.35	1500.	0.			131.		203.2	170.9	0.0	0.000E+00	0.000E+00	1.888E-06
B	6.0	0.98	1500.	0.			131.		203.2	170.9	0.0	0.000E+00	0.000E+00	1.133E-06
B	8.9	0.15	1500.	0.			131.		203.2	170.9	0.0	0.000E+00	0.000E+00	7.655E-07
B	11.6	0.08	1500.	0.			131.		203.2	170.9	0.0	0.000E+00	0.000E+00	5.901E-07
C	1.7	0.90	1500.	0.			131.		154.3	88.4	0.0	0.000E+00	0.000E+00	4.588E-06
C	3.6	2.10	1500.	0.			131.		154.3	88.4	0.0	0.000E+00	0.000E+00	2.141E-06
C	6.0	0.68	1500.	0.			131.		154.3	88.4	0.0	0.000E+00	0.000E+00	1.285E-06
C	8.9	0.30	1500.	0.			131.		154.3	88.4	0.0	0.000E+00	0.000E+00	8.679E-07
D	0.2	0.02	4000.	0.			131.		263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05
D	1.7	8.10	4000.	0.			131.		263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06
D	3.6	17.86	4000.	0.			131.		263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06
D	6.0	18.83	4000.	0.			131.		263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07
D	8.9	6.38	4000.	0.			131.		263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07
D	11.6	0.98	4000.	0.			131.		263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07
D	26.5	0.90	4000.	0.			131.		263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07
E	0.3	0.02	9000.	0.			131.		389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06
E	1.8	2.70	9000.	0.			131.		389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06
E	3.9	11.25	9000.	0.			131.		389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07
E	6.5	11.71	9000.	0.			131.		389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07
E	9.6	1.95	9000.	0.			131.		389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07
E	12.5	0.60	9000.	0.			131.		389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07
E	28.5	0.08	9000.	0.			131.		389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08
F	0.3	0.02	90000.	0.			131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06
F	1.8	1.65	90000.	0.			131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07
F	3.9	2.55	90000.	0.			131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07
F	6.5	0.98	90000.	0.			131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07
F	9.6	0.08	90000.	0.			131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07
G	1.8	0.83	90000.	0.			131.		1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	1.65	90000.	0.			131.		1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08

G	6.5	0.30	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
---	-----	------	--------	----	------	--------	------	-----	-----------	-----------	-----------

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 480 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1 96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

SW SECTOR BOUNDARY DISTANCE = 1500.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	4.588E-06	4.046E-06	2.224E-06	2.141E-06	1.888E-06	1.285E-06	1.262E-06
0.018	0.038	0.057	0.957	1.107	9.211	11.311	12.662	13.337	16.039
0.00057	0.00117	0.00176	0.02975	0.03441	0.28633	0.35164	0.39362	0.41462	0.49859
1.133E-06	1.038E-06	8.679E-07	7.655E-07	6.875E-07	6.226E-07	5.901E-07	5.890E-07	4.207E-07	3.534E-07
17.014	34.872	35.172	35.322	36.973	55.806	55.881	67.136	73.514	85.219
0.52891	1.08405	1.09338	1.09805	1.14936	1.73482	1.73716	2.08704	2.28530	2.64917
3.243E-07	3.234E-07	3.208E-07	2.388E-07	1.940E-07	1.925E-07	1.841E-07	1.415E-07	1.311E-07	1.301E-07
86.194	87.920	90.471	92.422	93.922	94.898	95.498	96.398	97.074	97.149
2.67950	2.73315	2.81245	2.87310	2.91975	2.95007	2.96873	2.99672	3.01771	3.02005
8.032E-08	6.449E-08	3.010E-08	1.806E-08						
97.224	98.049	99.700	100.000						
3.02238	3.04804	3.09935	3.10868						

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.351

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 1.083

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (4)= 2.085
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (5)= 2.810

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
3	1	-11.07050	-16.21195	-1.17139
3	2	-13.05427	-17.94360	-1.81377
3	3	-13.77855	-18.78341	-2.17949
3	4	-14.34482	-24.08552	-4.78298
3	5	-14.95230	NUMXQ(K)= 5	
		5.014E-06	0.031	1.000
		3.483E-06	0.093	3.000
		2.908E-06	0.155	5.000
		2.246E-06	0.311	10.000
		1.801E-06	0.466	15.000
		1.501E-06	0.622	20.000
		1.298E-06	0.777	25.000
		1.150E-06	0.933	30.000
		1.035E-06	1.088	35.000
		9.255E-07	1.243	40.000
		8.375E-07	1.399	45.000
		7.649E-07	1.554	50.000
		7.038E-07	1.710	55.000
		6.516E-07	1.865	60.000
		6.065E-07	2.021	65.000
		5.419E-07	2.176	70.000
		4.717E-07	2.332	75.000
		4.136E-07	2.487	80.000
		3.652E-07	2.642	85.000
		3.244E-07	2.798	90.000
		1.724E-06	0.5	16.08

ANNUAL AVERAGE = 6.57E-09

K= 3 FIVEXQ(K)= 1.724E-06 FIVEPR(K)=16.084

FUMIGATION X/Q AT THE BOUNDARY: 2.85E-05

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	7.442E-01	3.613E-01	3.314E-01	2.419E-01	2.081E-01	1.693E-02
3.902	6.603	11.874	15.851	68.917	97.224	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 482 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE WSW SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN HT	EFF PLUME HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS						CA=1292.SQ.METERS					
A	3.6	2.58	1500.	0.	131.	270.1	1000.0	0.0	0.000E+00	0.000E+00	3.234E-07
A	6.0	1.92	1500.	0.	131.	270.1	1000.0	0.0	0.000E+00	0.000E+00	1.940E-07
A	8.9	1.19	1500.	0.	131.	270.1	1000.0	0.0	0.000E+00	0.000E+00	1.311E-07
A	11.6	0.07	1500.	0.	131.	270.1	1000.0	0.0	0.000E+00	0.000E+00	1.011E-07
B	1.7	0.59	1500.	0.	131.	203.2	170.9	0.0	0.000E+00	0.000E+00	4.046E-06
B	3.6	1.65	1500.	0.	131.	203.2	170.9	0.0	0.000E+00	0.000E+00	1.888E-06
B	6.0	0.99	1500.	0.	131.	203.2	170.9	0.0	0.000E+00	0.000E+00	1.133E-06
B	8.9	0.07	1500.	0.	131.	203.2	170.9	0.0	0.000E+00	0.000E+00	7.655E-07
C	1.7	0.99	1500.	0.	131.	154.3	88.4	0.0	0.000E+00	0.000E+00	4.588E-06
C	3.6	2.44	1500.	0.	131.	154.3	88.4	0.0	0.000E+00	0.000E+00	2.141E-06
C	6.0	1.12	1500.	0.	131.	154.3	88.4	0.0	0.000E+00	0.000E+00	1.285E-06
C	8.9	0.20	1500.	0.	131.	154.3	88.4	0.0	0.000E+00	0.000E+00	8.679E-07
D	0.2	0.02	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05
D	1.7	7.86	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06
D	3.6	22.19	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06
D	6.0	18.36	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07
D	8.9	4.43	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07
D	11.6	0.73	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07
D	26.5	0.13	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07
E	0.3	0.03	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06
E	1.8	4.03	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06
E	3.9	14.46	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07
E	6.5	6.67	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07
E	9.6	0.73	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07
E	12.5	0.26	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07
E	28.5	0.07	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08
F	0.3	0.02	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06
F	1.8	1.72	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07
F	3.9	1.92	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07
F	6.5	0.53	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07
G	1.8	0.66	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	1.25	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	0.13	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 483 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

WSW SECTOR BOUNDARY DISTANCE = 1500.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	4.588E-06	4.046E-06	2.224E-06	2.141E-06	1.888E-06	1.285E-06	1.262E-06
0.018	0.046	0.066	1.057	1.651	9.511	11.955	13.607	14.729	18.758
0.00063	0.00164	0.00234	0.03733	0.05832	0.33589	0.42219	0.48051	0.52016	0.66244
1.133E-06	1.038E-06	8.679E-07	7.655E-07	6.875E-07	6.226E-07	5.890E-07	4.207E-07	3.534E-07	3.243E-07
19.749	41.942	42.140	42.206	43.923	62.285	76.750	81.176	87.847	88.573
0.69743	1.48116	1.48816	1.49049	1.55114	2.19958	2.71040	2.86668	3.10226	3.12792
3.234E-07	3.208E-07	2.388E-07	1.940E-07	1.925E-07	1.841E-07	1.415E-07	1.311E-07	1.011E-07	8.032E-08
91.149	93.065	93.791	95.707	96.235	96.499	96.631	97.820	97.886	97.952
3.21889	3.28653	3.31219	3.37983	3.39849	3.40782	3.41249	3.45448	3.45681	3.45914
6.449E-08	3.010E-08	1.806E-08							
98.613	99.868	100.000							
3.48247	3.52678	3.53145							

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2) = 0.422

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3) = 1.479

Calculation No. PM-1055 Revision 0

Attachment J

Page 484 of 1411

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 2.708
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 3.284

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
4	1	-11.07050	-16.06810	-1.14412
4	2	-13.05427	-17.21410	-1.57917
4	3	-13.77855	-18.70747	-2.26561
4	4	-14.34482	-28.11817	-7.15277
4	5	-14.95230	NUMXQ(K)= 5	
		5.068E-06	0.035	1.000
		3.538E-06	0.106	3.000
		2.961E-06	0.177	5.000
		2.293E-06	0.353	10.000
		1.893E-06	0.530	15.000
		1.612E-06	0.706	20.000
		1.418E-06	0.883	25.000
		1.273E-06	1.059	30.000
		1.160E-06	1.236	35.000
		1.069E-06	1.413	40.000
		9.739E-07	1.589	45.000
		8.848E-07	1.766	50.000
		8.101E-07	1.942	55.000
		7.466E-07	2.119	60.000
		6.919E-07	2.295	65.000
		6.443E-07	2.472	70.000
		6.025E-07	2.649	75.000
		5.177E-07	2.825	80.000
		4.280E-07	3.002	85.000
		3.571E-07	3.178	90.000
		1.954E-06	0.5	14.16

ANNUAL AVERAGE = 9.48E-09

K= 4 FIVEXQ(K)= 1.954E-06 FIVEPR(K)=14.158

FUMIGATION X/Q AT THE BOUNDARY: 2.85E-05

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	7.442E-01	3.613E-01	3.314E-01	2.419E-01	2.081E-01	1.693E-02
5.746	9.049	13.230	17.985	71.702	97.952	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 485 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE W SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)	MEANDER	BLDG	WAKE	USED
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG	WAKE	USED	
AT 131.4 METERS												CA=1292.SQ.METERS				
A	1.7	0.15	1500.	0.	131.	270.1	1000.0	0.0	0.000E+00	0.000E+00	6.930E-07					
A	3.6	4.26	1500.	0.	131.	270.1	1000.0	0.0	0.000E+00	0.000E+00	3.234E-07					
A	6.0	2.25	1500.	0.	131.	270.1	1000.0	0.0	0.000E+00	0.000E+00	1.940E-07					
A	8.9	0.34	1500.	0.	131.	270.1	1000.0	0.0	0.000E+00	0.000E+00	1.311E-07					
B	1.7	0.24	1500.	0.	131.	203.2	170.9	0.0	0.000E+00	0.000E+00	4.046E-06					
B	3.6	2.74	1500.	0.	131.	203.2	170.9	0.0	0.000E+00	0.000E+00	1.888E-06					
B	6.0	0.59	1500.	0.	131.	203.2	170.9	0.0	0.000E+00	0.000E+00	1.133E-06					
B	8.9	0.05	1500.	0.	131.	203.2	170.9	0.0	0.000E+00	0.000E+00	7.655E-07					
C	1.7	0.05	1500.	0.	131.	154.3	88.4	0.0	0.000E+00	0.000E+00	4.588E-06					
C	3.6	2.45	1500.	0.	131.	154.3	88.4	0.0	0.000E+00	0.000E+00	2.141E-06					
C	6.0	0.68	1500.	0.	131.	154.3	88.4	0.0	0.000E+00	0.000E+00	1.285E-06					
C	8.9	0.15	1500.	0.	131.	154.3	88.4	0.0	0.000E+00	0.000E+00	8.679E-07					
C	11.6	0.05	1500.	0.	131.	154.3	88.4	0.0	0.000E+00	0.000E+00	6.690E-07					
D	0.2	0.01	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05					
D	1.7	5.63	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06					
D	3.6	21.28	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06					
D	6.0	16.19	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07					
D	8.9	6.46	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07					
D	11.6	1.57	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07					
D	26.5	0.39	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07					
E	0.3	0.02	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06					
E	1.8	2.94	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06					
E	3.9	13.85	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07					
E	6.5	7.88	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07					
E	9.6	2.84	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07					
E	12.5	0.59	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07					
E	28.5	0.98	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08					
F	0.3	0.02	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06					
F	1.8	1.52	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07					
F	3.9	1.66	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07					
F	6.5	0.64	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07					
F	28.5	0.20	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.375E-08					
G	1.8	0.64	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08					

G	3.9	0.64	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	0.10	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 487 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

W SECTOR BOUNDARY DISTANCE = 1500.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	4.588E-06	4.046E-06	2.224E-06	2.141E-06	1.888E-06	1.285E-06	1.262E-06
0.013	0.034	0.051	0.100	0.345	5.971	8.417	11.157	11.841	14.777
0.00061	0.00160	0.00244	0.00477	0.01643	0.28467	0.40130	0.53192	0.56458	0.70453
1.133E-06	1.038E-06	8.679E-07	7.655E-07	6.930E-07	6.875E-07	6.690E-07	6.226E-07	5.890E-07	4.207E-07
15.364	36.645	36.792	36.841	36.988	38.504	38.553	54.747	68.592	75.049
0.73252	1.74716	1.75416	1.75649	1.76349	1.83580	1.83813	2.61020	3.27030	3.57820
3.534E-07	3.243E-07	3.234E-07	3.208E-07	2.388E-07	1.940E-07	1.925E-07	1.841E-07	1.415E-07	1.311E-07
82.926	84.492	88.748	90.411	93.249	95.499	96.135	96.722	97.114	97.456
3.95373	4.02837	4.23130	4.31061	4.44590	4.55319	4.58352	4.61151	4.63017	4.64649
8.032E-08	6.449E-08	4.375E-08	3.010E-08	1.806E-08					
98.434	99.070	99.266	99.902	100.000					
4.69314	4.72347	4.73280	4.76312	4.76779					

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.401
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 0.531

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (4)= 1.745
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (5)= 3.267
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (6)= 4.307

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
5	1	-11.07050	-16.10488	-1.15058
5	2	-13.05427	-16.49988	-1.29956
5	3	-13.17981	-16.61483	-1.34455
5	4	-13.77855	-18.25954	-2.12424
5	5	-14.34482	-23.17538	-4.79171
5	6	-14.95230	NUMXQ(K) = 6	
		4.537E-06	0.048	1.000
		3.134E-06	0.143	3.000
		2.607E-06	0.238	5.000
		1.984E-06	0.477	10.000
		1.640E-06	0.715	15.000
		1.423E-06	0.954	20.000
		1.271E-06	1.192	25.000
		1.155E-06	1.430	30.000
		1.064E-06	1.669	35.000
		9.619E-07	1.907	40.000
		8.673E-07	2.146	45.000
		7.893E-07	2.384	50.000
		7.238E-07	2.622	55.000
		6.680E-07	2.861	60.000
		6.198E-07	3.099	65.000
		5.638E-07	3.337	70.000
		4.856E-07	3.576	75.000
		4.215E-07	3.814	80.000
		3.685E-07	4.053	85.000
		3.242E-07	4.291	90.000
		1.942E-06	0.5	10.49

ANNUAL AVERAGE = 1.03E-08

K= 5 FIVEXQ(K)= 1.942E-06 FIVEPR(K)=10.487

FUMIGATION X/Q AT THE BOUNDARY: 2.85E-05

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	7.442E-01	3.613E-01	3.314E-01	2.419E-01	2.081E-01	1.693E-02
6.996	10.616	14.645	18.021	69.549	98.630	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 489 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE WNW SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	3.6	2.40	1500.	0.	131.	270.1	1000.0	0.0	0.000E+00	0.000E+00	3.234E-07			
A	6.0	2.40	1500.	0.	131.	270.1	1000.0	0.0	0.000E+00	0.000E+00	1.940E-07			
A	8.9	0.16	1500.	0.	131.	270.1	1000.0	0.0	0.000E+00	0.000E+00	1.311E-07			
A	11.6	0.05	1500.	0.	131.	270.1	1000.0	0.0	0.000E+00	0.000E+00	1.011E-07			
A	26.5	0.05	1500.	0.	131.	270.1	1000.0	0.0	0.000E+00	0.000E+00	4.410E-08			
B	3.6	1.58	1500.	0.	131.	203.2	170.9	0.0	0.000E+00	0.000E+00	1.888E-06			
B	6.0	1.36	1500.	0.	131.	203.2	170.9	0.0	0.000E+00	0.000E+00	1.133E-06			
B	8.9	0.11	1500.	0.	131.	203.2	170.9	0.0	0.000E+00	0.000E+00	7.655E-07			
B	11.6	0.05	1500.	0.	131.	203.2	170.9	0.0	0.000E+00	0.000E+00	5.901E-07			
C	3.6	3.54	1500.	0.	131.	154.3	88.4	0.0	0.000E+00	0.000E+00	2.141E-06			
C	6.0	1.42	1500.	0.	131.	154.3	88.4	0.0	0.000E+00	0.000E+00	1.285E-06			
C	8.9	0.22	1500.	0.	131.	154.3	88.4	0.0	0.000E+00	0.000E+00	8.679E-07			
C	11.6	0.11	1500.	0.	131.	154.3	88.4	0.0	0.000E+00	0.000E+00	6.690E-07			
D	0.2	0.01	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05			
D	1.7	4.69	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06			
D	3.6	16.58	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06			
D	6.0	16.79	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07			
D	8.9	7.63	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07			
D	11.6	1.42	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07			
D	26.5	0.11	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07			
E	0.3	0.02	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06			
E	1.8	3.27	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06			
E	3.9	10.91	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07			
E	6.5	14.01	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07			
E	9.6	3.44	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07			
E	12.5	1.15	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07			
E	28.5	0.22	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08			
F	0.3	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06			
F	1.8	1.25	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07			
F	3.9	2.84	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07			
F	6.5	1.31	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07			
F	9.6	0.11	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07			
F	28.5	0.05	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.375E-08			

G	1.8	0.27	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	0.33	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	0.11	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 491 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

WNW SECTOR BOUNDARY DISTANCE = 1500.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.224E-06	2.141E-06	1.888E-06	1.285E-06	1.262E-06	1.133E-06	1.038E-06
0.011	0.034	0.048	4.738	8.282	9.864	11.281	14.553	15.916	32.493
0.00045	0.00145	0.00207	0.20267	0.35428	0.42192	0.48257	0.62252	0.68083	1.38992
8.679E-07	7.655E-07	6.875E-07	6.690E-07	6.226E-07	5.901E-07	5.890E-07	4.207E-07	3.534E-07	3.243E-07
32.711	32.820	34.074	34.184	50.978	51.033	61.939	69.573	83.587	85.005
1.39925	1.40392	1.45756	1.46223	2.18065	2.18298	2.64948	2.97604	3.57550	3.63614
3.234E-07	3.208E-07	2.388E-07	1.940E-07	1.925E-07	1.841E-07	1.415E-07	1.311E-07	1.301E-07	1.011E-07
87.404	90.239	93.675	96.074	97.383	98.528	98.637	98.800	98.909	98.964
3.73877	3.86006	4.00701	4.10964	4.16563	4.21461	4.21927	4.22627	4.23094	4.23327
8.032E-08	6.449E-08	4.410E-08	4.375E-08	3.010E-08	1.806E-08				
99.182	99.455	99.509	99.564	99.891	100.000				
4.24260	4.25426	4.25659	4.25893	4.27292	4.27759				

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)**PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED**

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2) = 0.354
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3) = 1.388

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (4)= 2.647
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (5)= 3.857
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (6)= 4.211

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
6	1	-11.07050	-16.11545	-1.13664
6	2	-13.05427	-17.01398	-1.47027
6	3	-13.77855	-18.47851	-2.13580
6	4	-14.34482	-21.34840	-3.61861
6	5	-14.95230	-38.98705	-13.59773
6	6	-15.50797	NUMXQ(K) = 6	
		4.437E-06	0.043	1.000
		3.089E-06	0.128	3.000
		2.580E-06	0.214	5.000
		1.950E-06	0.428	10.000
		1.585E-06	0.642	15.000
		1.360E-06	0.856	20.000
		1.204E-06	1.069	25.000
		1.086E-06	1.283	30.000
		9.748E-07	1.497	35.000
		8.697E-07	1.711	40.000
		7.851E-07	1.925	45.000
		7.152E-07	2.139	50.000
		6.565E-07	2.353	55.000
		6.065E-07	2.567	60.000
		5.461E-07	2.780	65.000
		4.855E-07	2.994	70.000
		4.347E-07	3.208	75.000
		3.914E-07	3.422	80.000
		3.543E-07	3.636	85.000
		3.223E-07	3.850	90.000
		1.803E-06	0.5	11.69

ANNUAL AVERAGE = 8.32E-09

K= 6 FIVEXQ(K)= 1.803E-06 FIVEPR(K)=11.689

FUMIGATION X/Q AT THE BOUNDARY: 2.85E-05

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	7.442E-01	3.613E-01	3.314E-01	2.419E-01	2.081E-01	1.693E-02
5.071	8.179	13.756	19.045	66.278	99.291	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 493 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE NW SECTOR.

STABILITY CLASS	WINDSPEED METER/SEC	FREQUENCY PERCENT	DISTANCE METERS	TERRAIN METERS	HT METERS	EFF PLUME METERS	HT METERS	SIGMA-Y METERS	SIGMA-Z METERS	MEANDER-SY METERS	** CHI/Q VALUES (SEC/CUBIC METER)	MEANDER	BLDG WAKE	USED
AT 131.4 METERS											CA=1292.SQ.METERS			
A	3.6	0.17	1500.	0.	131.	270.1	1000.0	0.0	0.000E+00	0.000E+00	3.234E-07			
A	6.0	0.87	1500.	0.	131.	270.1	1000.0	0.0	0.000E+00	0.000E+00	1.940E-07			
A	8.9	0.56	1500.	0.	131.	270.1	1000.0	0.0	0.000E+00	0.000E+00	1.311E-07			
B	1.7	0.09	1500.	0.	131.	203.2	170.9	0.0	0.000E+00	0.000E+00	4.046E-06			
B	3.6	0.43	1500.	0.	131.	203.2	170.9	0.0	0.000E+00	0.000E+00	1.888E-06			
B	6.0	1.17	1500.	0.	131.	203.2	170.9	0.0	0.000E+00	0.000E+00	1.133E-06			
B	8.9	0.35	1500.	0.	131.	203.2	170.9	0.0	0.000E+00	0.000E+00	7.655E-07			
B	11.6	0.04	1500.	0.	131.	203.2	170.9	0.0	0.000E+00	0.000E+00	5.901E-07			
C	3.6	0.61	1500.	0.	131.	154.3	88.4	0.0	0.000E+00	0.000E+00	2.141E-06			
C	6.0	2.69	1500.	0.	131.	154.3	88.4	0.0	0.000E+00	0.000E+00	1.285E-06			
C	8.9	0.48	1500.	0.	131.	154.3	88.4	0.0	0.000E+00	0.000E+00	8.679E-07			
D	0.2	0.00	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05			
D	1.7	1.95	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06			
D	3.6	14.72	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06			
D	6.0	20.76	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07			
D	8.9	6.99	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07			
D	11.6	0.61	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07			
D	26.5	0.30	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07			
E	0.3	0.02	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06			
E	1.8	2.65	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06			
E	3.9	14.98	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07			
E	6.5	15.16	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07			
E	9.6	4.26	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07			
E	12.5	0.69	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07			
E	28.5	0.52	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08			
F	0.3	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06			
F	1.8	1.22	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07			
F	3.9	3.52	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07			
F	6.5	2.08	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07			
F	9.6	0.30	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07			
G	1.8	0.17	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08			
G	3.9	1.22	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08			
G	6.5	0.35	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08			

G	9.6	0.04	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08
---	-----	------	--------	----	------	--------	------	-----	-----------	-----------	-----------

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 495 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

NW SECTOR BOUNDARY DISTANCE = 1500.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.
THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.
THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	4.046E-06	2.224E-06	2.141E-06	1.888E-06	1.285E-06	1.262E-06	1.133E-06
0.004	0.023	0.037	0.124	2.078	2.686	3.120	5.813	8.462	9.634
0.00024	0.00125	0.00200	0.00667	0.11163	0.14429	0.16761	0.31223	0.45451	0.51749
1.038E-06	8.679E-07	7.655E-07	6.875E-07	6.226E-07	5.901E-07	5.890E-07	4.207E-07	3.534E-07	3.243E-07
24.355	24.833	25.180	26.396	47.153	47.196	62.177	69.169	84.324	84.932
1.30822	1.33388	1.35254	1.41785	2.53279	2.53513	3.33985	3.71538	4.52943	4.56209
3.234E-07	3.208E-07	2.388E-07	1.940E-07	1.925E-07	1.841E-07	1.415E-07	1.311E-07	1.301E-07	8.032E-08
85.105	88.623	92.878	93.747	95.831	96.526	96.830	97.395	97.698	98.220
4.57142	4.76035	4.98894	5.03559	5.14755	5.18487	5.20120	5.23152	5.24785	5.27584
6.449E-08	3.010E-08	1.806E-08	1.220E-08						
98.393	99.609	99.957	100.000						
5.28517	5.35048	5.36914	5.37148						

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.144
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 3.337

Calculation No. PM-1055 Revision 0

Attachment J

Page 496 of 1411

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (5)= 4.526
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (6)= 4.757

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
7	1	-11.07050	-16.75842	-1.24301
7	2	-13.05427	-15.91010	-0.95834
7	3	-13.77855	-17.00174	-1.44914
7	4	-14.34482	-20.99784	-3.62870
7	5	-14.85564	-21.74129	-4.06791
7	6	-14.95230	NUMXQ(K)= 6	
		3.072E-06	0.054	1.000
		2.072E-06	0.161	3.000
		1.775E-06	0.269	5.000
		1.420E-06	0.537	10.000
		1.236E-06	0.806	15.000
		1.116E-06	1.074	20.000
		1.022E-06	1.343	25.000
		9.211E-07	1.611	30.000
		8.415E-07	1.880	35.000
		7.768E-07	2.149	40.000
		7.229E-07	2.417	45.000
		6.770E-07	2.686	50.000
		6.374E-07	2.954	55.000
		6.028E-07	3.223	60.000
		5.477E-07	3.491	65.000
		4.845E-07	3.760	70.000
		4.316E-07	4.029	75.000
		3.868E-07	4.297	80.000
		3.480E-07	4.566	85.000
		1.454E-06	0.5	9.31

ANNUAL AVERAGE = 5.93E-09

K= 7 FIVEXQ(K)= 1.454E-06 FIVEPR(K)= 9.308

FUMIGATION X/Q AT THE BOUNDARY: 2.85E-05

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	7.442E-01	3.613E-01	3.314E-01	2.419E-01	2.081E-01	1.693E-02
1.607	3.691	10.827	14.605	59.944	98.220	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 497 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE NNW SECTOR.

STABILITY CLASS	WINDSPEED METER/SEC	FREQUENCY PERCENT	DISTANCE METERS	TERRAIN METERS	HT METERS	EFF PLUME METERS	HT METERS	SIGMA-Y METERS	SIGMA-Z METERS	MEANDER-SY METERS	** CHI/Q VALUES (SEC/CUBIC METER)	MEANDER	BLDG WAKE	USED
AT 131.4 METERS											CA=1292.SQ.METERS			
A	3.6	0.09	1500.	0.	131.	270.1	1000.0	0.0	0.000E+00	0.000E+00	3.234E-07			
A	6.0	0.09	1500.	0.	131.	270.1	1000.0	0.0	0.000E+00	0.000E+00	1.940E-07			
B	3.6	0.14	1500.	0.	131.	203.2	170.9	0.0	0.000E+00	0.000E+00	1.888E-06			
B	6.0	0.37	1500.	0.	131.	203.2	170.9	0.0	0.000E+00	0.000E+00	1.133E-06			
B	8.9	0.37	1500.	0.	131.	203.2	170.9	0.0	0.000E+00	0.000E+00	7.655E-07			
B	11.6	0.05	1500.	0.	131.	203.2	170.9	0.0	0.000E+00	0.000E+00	5.901E-07			
C	3.6	0.55	1500.	0.	131.	154.3	88.4	0.0	0.000E+00	0.000E+00	2.141E-06			
C	6.0	1.01	1500.	0.	131.	154.3	88.4	0.0	0.000E+00	0.000E+00	1.285E-06			
C	8.9	0.46	1500.	0.	131.	154.3	88.4	0.0	0.000E+00	0.000E+00	8.679E-07			
C	11.6	0.05	1500.	0.	131.	154.3	88.4	0.0	0.000E+00	0.000E+00	6.690E-07			
D	0.2	0.00	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05			
D	1.7	1.61	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06			
D	3.6	11.17	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06			
D	6.0	21.42	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07			
D	8.9	5.42	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07			
D	11.6	0.51	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07			
D	26.5	0.32	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07			
E	0.3	0.02	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06			
E	1.8	2.71	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06			
E	3.9	14.29	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07			
E	6.5	20.36	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07			
E	9.6	7.58	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07			
E	12.5	0.51	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07			
E	28.5	0.09	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08			
F	0.3	0.02	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06			
F	1.8	1.47	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07			
F	3.9	4.14	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07			
F	6.5	3.63	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07			
F	9.6	0.37	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07			
G	1.8	0.41	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08			
G	3.9	0.46	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08			
G	6.5	0.28	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08			
G	9.6	0.05	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08			

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 498 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

NNW SECTOR BOUNDARY DISTANCE = 1500.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.
THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.
THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.224E-06	2.141E-06	1.888E-06	1.285E-06	1.262E-06	1.133E-06	1.038E-06
0.004	0.023	0.040	1.648	2.200	2.338	3.349	6.060	6.428	17.596
0.00018	0.00116	0.00203	0.08366	0.11165	0.11865	0.16997	0.30759	0.32625	0.89305
8.679E-07	7.655E-07	6.875E-07	6.690E-07	6.226E-07	5.901E-07	5.890E-07	4.207E-07	3.534E-07	3.243E-07
18.056	18.423	19.894	19.940	41.357	41.403	55.696	61.119	81.479	81.984
0.91638	0.93504	1.00968	1.01201	2.09897	2.10130	2.82671	3.10195	4.13526	4.16092
3.234E-07	3.208E-07	2.388E-07	1.940E-07	1.925E-07	1.841E-07	1.415E-07	1.301E-07	8.032E-08	6.449E-08
82.076	86.212	93.796	93.887	97.518	98.024	98.345	98.713	98.805	99.219
4.16558	4.37551	4.76038	4.76504	4.94931	4.97497	4.99130	5.00996	5.01462	5.03561
3.010E-08	1.806E-08	1.220E-08							
99.678	99.954	100.000							
5.05894	5.07293	5.07527							

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2) = 0.892
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3) = 2.824

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 4.132

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
8	1	-11.07050	-16.61799	-1.19862
8	2	-13.77855	-16.68459	-1.22673
8	3	-14.34482	-20.01827	-2.97457
8	4	-14.85564	NUMXQ(K)= 4	
		3.117E-06	0.051	1.000
		2.116E-06	0.152	3.000
		1.745E-06	0.254	5.000
		1.322E-06	0.508	10.000
		1.113E-06	0.761	15.000
		9.786E-07	1.015	20.000
		8.816E-07	1.269	25.000
		8.076E-07	1.523	30.000
		7.486E-07	1.776	35.000
		7.000E-07	2.030	40.000
		6.590E-07	2.284	45.000
		6.237E-07	2.538	50.000
		5.930E-07	2.791	55.000
		5.344E-07	3.045	60.000
		4.807E-07	3.299	65.000
		4.352E-07	3.553	70.000
		3.962E-07	3.806	75.000
		3.625E-07	4.060	80.000
		1.330E-06	0.5	9.85

ANNUAL AVERAGE = 3.16E-09

K= 8 FIVEXQ(K)= 1.330E-06 FIVEPR(K)= 9.852

FUMIGATION X/Q AT THE BOUNDARY: 2.85E-05

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	7.442E-01	3.613E-01	3.314E-01	2.419E-01	2.081E-01	1.693E-02
0.184	1.103	10.725	12.793	53.241	98.805	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 500 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE N SECTOR.

STABILITY CLASS	WINDSPEED METER/SEC	FREQUENCY PERCENT	DISTANCE METERS	TERRAIN METERS	HT EFF METERS	PLUME HT METERS	SIGMA-Y METERS	SIGMA-Z METERS	MEANDER-SY METERS	** CHI/Q VALUES (SEC/CUBIC METER)		
										MEANDER	BLDG WAKE	USED
AT 131.4 METERS										CA=1292.SQ.METERS		
A	6.0	0.28	1500.	0.	131.	270.1	1000.0	0.0	0.000E+00	0.000E+00	1.940E-07	
A	8.9	0.16	1500.	0.	131.	270.1	1000.0	0.0	0.000E+00	0.000E+00	1.311E-07	
B	3.6	0.07	1500.	0.	131.	203.2	170.9	0.0	0.000E+00	0.000E+00	1.888E-06	
B	6.0	0.58	1500.	0.	131.	203.2	170.9	0.0	0.000E+00	0.000E+00	1.133E-06	
B	8.9	0.72	1500.	0.	131.	203.2	170.9	0.0	0.000E+00	0.000E+00	7.655E-07	
B	11.6	0.12	1500.	0.	131.	203.2	170.9	0.0	0.000E+00	0.000E+00	5.901E-07	
B	26.5	0.02	1500.	0.	131.	203.2	170.9	0.0	0.000E+00	0.000E+00	2.575E-07	
C	3.6	0.44	1500.	0.	131.	154.3	88.4	0.0	0.000E+00	0.000E+00	2.141E-06	
C	6.0	1.68	1500.	0.	131.	154.3	88.4	0.0	0.000E+00	0.000E+00	1.285E-06	
C	8.9	1.56	1500.	0.	131.	154.3	88.4	0.0	0.000E+00	0.000E+00	8.679E-07	
C	11.6	0.21	1500.	0.	131.	154.3	88.4	0.0	0.000E+00	0.000E+00	6.690E-07	
C	26.5	0.02	1500.	0.	131.	154.3	88.4	0.0	0.000E+00	0.000E+00	2.919E-07	
D	0.2	0.00	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05	
D	1.7	0.96	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06	
D	3.6	7.00	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06	
D	6.0	16.51	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07	
D	8.9	11.24	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07	
D	11.6	2.31	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07	
D	26.5	0.68	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07	
E	0.3	0.01	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06	
E	1.8	1.63	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06	
E	3.9	10.14	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07	
E	6.5	20.78	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07	
E	9.6	12.03	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07	
E	12.5	1.49	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07	
E	28.5	0.14	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08	
F	0.3	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06	
F	1.8	0.54	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07	
F	3.9	3.13	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07	
F	6.5	3.03	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07	
F	9.6	1.03	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07	
G	1.8	0.40	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08	
G	3.9	0.79	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08	

G	6.5	0.23	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	0.05	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 502 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1 96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

N SECTOR BOUNDARY DISTANCE = 1500.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.224E-06	2.141E-06	1.888E-06	1.285E-06	1.262E-06	1.133E-06	1.038E-06
0.002	0.014	0.020	0.976	1.419	1.489	3.168	4.801	5.384	12.380
0.00022	0.00138	0.00200	0.09763	0.14195	0.14895	0.31689	0.48017	0.53848	1.23824
8.679E-07	7.655E-07	6.875E-07	6.690E-07	6.226E-07	5.901E-07	5.890E-07	4.207E-07	3.534E-07	3.243E-07
13.943	14.666	15.202	15.412	31.924	32.041	42.186	53.427	74.206	76.515
1.39451	1.46682	1.52047	1.54146	3.19289	3.20455	4.21920	5.34348	7.42176	7.65268
3.208E-07	2.919E-07	2.575E-07	2.388E-07	1.940E-07	1.925E-07	1.841E-07	1.415E-07	1.311E-07	1.301E-07
79.640	79.663	79.687	91.721	92.001	95.032	96.525	97.201	97.365	98.391
7.96524	7.96757	7.96990	9.17348	9.20148	9.50470	9.65398	9.72163	9.73796	9.84059
8.032E-08	6.449E-08	3.010E-08	1.806E-08	1.220E-08					
98.531	98.927	99.720	99.953	100.000					
9.85458	9.89423	9.97354	9.99687	10.00153					

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (2)= 1.237
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (3)= 4.216

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 7.418
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 7.962

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
9	1	-11.07050	-16.36633	-1.15243
9	2	-13.77855	-16.22705	-1.09041
9	3	-14.34482	-17.48474	-1.81900
9	4	-14.85564	-18.56257	-2.56472
9	5	-14.95230	NUMXQ(K)= 5	
		2.748E-06	0.100	1.000
		1.852E-06	0.300	3.000
		1.519E-06	0.500	5.000
		1.139E-06	1.000	10.000
		9.561E-07	1.500	15.000
		8.422E-07	2.000	20.000
		7.603E-07	2.500	25.000
		6.974E-07	3.000	30.000
		6.470E-07	3.501	35.000
		6.052E-07	4.001	40.000
		5.572E-07	4.501	45.000
		5.083E-07	5.001	50.000
		4.669E-07	5.501	55.000
		4.314E-07	6.001	60.000
		4.007E-07	6.501	65.000
		3.737E-07	7.001	70.000
		3.483E-07	7.501	75.000
		1.519E-06	0.5	5.00

ANNUAL AVERAGE = 7.50E-09

K= 9 FIVEXQ(K)= 1.519E-06 FIVEPR(K)= 4.999

FUMIGATION X/Q AT THE BOUNDARY: 2.85E-05

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	7.442E-01	3.613E-01	3.314E-01	2.419E-01	2.081E-01	1.693E-02
0.443	1.959	9.685	13.603	52.296	98.531	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 504 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE NNE SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	3.6	0.08	1500.	0.	131.	270.1	1000.0	0.0	0.000E+00	0.000E+00	3.234E-07			
A	6.0	0.28	1500.	0.	131.	270.1	1000.0	0.0	0.000E+00	0.000E+00	1.940E-07			
A	8.9	0.12	1500.	0.	131.	270.1	1000.0	0.0	0.000E+00	0.000E+00	1.311E-07			
B	3.6	0.16	1500.	0.	131.	203.2	170.9	0.0	0.000E+00	0.000E+00	1.888E-06			
B	6.0	0.56	1500.	0.	131.	203.2	170.9	0.0	0.000E+00	0.000E+00	1.133E-06			
B	8.9	0.36	1500.	0.	131.	203.2	170.9	0.0	0.000E+00	0.000E+00	7.655E-07			
B	11.6	0.08	1500.	0.	131.	203.2	170.9	0.0	0.000E+00	0.000E+00	5.901E-07			
C	3.6	0.20	1500.	0.	131.	154.3	88.4	0.0	0.000E+00	0.000E+00	2.141E-06			
C	6.0	1.47	1500.	0.	131.	154.3	88.4	0.0	0.000E+00	0.000E+00	1.285E-06			
C	8.9	0.95	1500.	0.	131.	154.3	88.4	0.0	0.000E+00	0.000E+00	8.679E-07			
D	0.2	0.00	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05			
D	1.7	0.91	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06			
D	3.6	7.60	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06			
D	6.0	16.91	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07			
D	8.9	6.60	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07			
D	11.6	0.64	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07			
D	26.5	0.36	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07			
E	0.3	0.02	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06			
E	1.8	2.23	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06			
E	3.9	12.73	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07			
E	6.5	22.95	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07			
E	9.6	9.07	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07			
E	12.5	0.76	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07			
E	28.5	0.16	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08			
F	0.3	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06			
F	1.8	1.27	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07			
F	3.9	5.61	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07			
F	6.5	4.42	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07			
F	9.6	0.91	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07			
F	12.5	0.12	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.003E-07			
G	1.8	0.36	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08			
G	3.9	1.23	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08			
G	6.5	0.84	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08			

G	9.6	0.04	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08
---	-----	------	--------	----	------	--------	------	-----	-----------	-----------	-----------

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 506 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

NNE SECTOR BOUNDARY DISTANCE = 1500.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.224E-06	2.141E-06	1.888E-06	1.285E-06	1.262E-06	1.133E-06	1.038E-06
0.002	0.018	0.033	0.948	1.146	1.306	2.777	5.005	5.562	13.160
0.00012	0.00105	0.00191	0.05556	0.06722	0.07655	0.16286	0.29348	0.32613	0.77165
8.679E-07	7.655E-07	6.875E-07	6.226E-07	5.901E-07	5.890E-07	4.207E-07	3.534E-07	3.243E-07	3.234E-07
14.115	14.473	15.746	32.652	32.732	45.461	52.065	75.018	75.655	75.734
0.82763	0.84862	0.92326	1.91458	1.91925	2.66566	3.05286	4.39872	4.43604	4.44071
3.208E-07	2.388E-07	1.940E-07	1.925E-07	1.841E-07	1.415E-07	1.311E-07	1.301E-07	1.003E-07	8.032E-08
81.343	90.413	90.691	95.107	95.863	96.221	96.340	97.255	97.375	97.534
4.76959	5.30141	5.31774	5.57665	5.62096	5.64196	5.64895	5.70260	5.70960	5.71893
6.449E-08	3.010E-08	1.806E-08	1.220E-08						
97.892	99.125	99.960	100.000						
5.73992	5.81223	5.86121	5.86355						

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.771
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 2.663

Calculation No. PM-1055 Revision 0

Attachment J

Page 507 of 1411

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 4.395
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 4.766

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
10	1	-11.07050	-16.64085	-1.18155
10	2	-13.77855	-16.57989	-1.15639
10	3	-14.34482	-18.70878	-2.25784
10	4	-14.85564	-19.13159	-2.50560
10	5	-14.95230	NUMXQ(K)= 5	
		2.745E-06	0.059	1.000
		1.865E-06	0.176	3.000
		1.538E-06	0.293	5.000
		1.165E-06	0.586	10.000
		9.817E-07	0.880	15.000
		8.663E-07	1.173	20.000
		7.836E-07	1.466	25.000
		7.202E-07	1.759	30.000
		6.695E-07	2.052	35.000
		6.275E-07	2.345	40.000
		5.920E-07	2.639	45.000
		5.364E-07	2.932	50.000
		4.876E-07	3.225	55.000
		4.464E-07	3.518	60.000
		4.110E-07	3.811	65.000
		3.803E-07	4.104	70.000
		3.535E-07	4.398	75.000
		3.273E-07	4.691	80.000
		1.244E-06	0.5	8.53

ANNUAL AVERAGE = 3.55E-09

K= 10 FIVEXQ(K)= 1.244E-06 FIVEPR(K)= 8.527

FUMIGATION X/Q AT THE BOUNDARY: 2.85E-05

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	7.442E-01	3.613E-01	3.314E-01	2.419E-01	2.081E-01	1.693E-02
0.477	1.631	13.978	16.603	49.623	97.534	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 508 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE NE SECTOR.

STABILITY CLASS	WINDSPEED METER/SEC	FREQUENCY PERCENT	DISTANCE METERS	TERRAIN METERS	HT METERS	EFF PLUME METERS	HT METERS	SIGMA-Y METERS	SIGMA-Z METERS	MEANDER-SY METERS	** CHI/Q VALUES (SEC/CUBIC METER)		
											MEANDER	BLDG WAKE	USED
AT 131.4 METERS											CA=1292.SQ.METERS		
A	3.6	0.09	1500.	0.	131.	270.1	1000.0	0.0	0.000E+00	0.000E+00	3.234E-07		
A	6.0	0.23	1500.	0.	131.	270.1	1000.0	0.0	0.000E+00	0.000E+00	1.940E-07		
A	8.9	0.09	1500.	0.	131.	270.1	1000.0	0.0	0.000E+00	0.000E+00	1.311E-07		
B	3.6	0.14	1500.	0.	131.	203.2	170.9	0.0	0.000E+00	0.000E+00	1.888E-06		
B	6.0	0.61	1500.	0.	131.	203.2	170.9	0.0	0.000E+00	0.000E+00	1.133E-06		
B	8.9	0.28	1500.	0.	131.	203.2	170.9	0.0	0.000E+00	0.000E+00	7.655E-07		
B	11.6	0.05	1500.	0.	131.	203.2	170.9	0.0	0.000E+00	0.000E+00	5.901E-07		
C	3.6	0.33	1500.	0.	131.	154.3	88.4	0.0	0.000E+00	0.000E+00	2.141E-06		
C	6.0	1.41	1500.	0.	131.	154.3	88.4	0.0	0.000E+00	0.000E+00	1.285E-06		
C	8.9	0.99	1500.	0.	131.	154.3	88.4	0.0	0.000E+00	0.000E+00	8.679E-07		
C	11.6	0.19	1500.	0.	131.	154.3	88.4	0.0	0.000E+00	0.000E+00	6.690E-07		
C	26.5	0.05	1500.	0.	131.	154.3	88.4	0.0	0.000E+00	0.000E+00	2.919E-07		
D	0.2	0.00	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05		
D	1.7	1.50	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06		
D	3.6	7.28	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06		
D	6.0	13.48	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07		
D	8.9	5.92	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07		
D	11.6	0.75	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07		
D	26.5	0.14	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07		
E	0.3	0.02	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06		
E	1.8	2.77	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06		
E	3.9	13.19	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07		
E	6.5	16.62	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07		
E	9.6	10.14	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07		
E	12.5	0.85	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07		
E	28.5	0.09	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08		
F	0.3	0.02	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06		
F	1.8	1.50	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07		
F	3.9	7.32	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07		
F	6.5	7.37	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07		
F	9.6	1.83	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07		
G	1.8	0.28	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08		
G	3.9	1.69	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08		

G	6.5	2.39	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	0.38	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 510 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

NE SECTOR BOUNDARY DISTANCE = 1500.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.
THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.
THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.224E-06	2.141E-06	1.888E-06	1.285E-06	1.262E-06	1.133E-06	1.038E-06
0.003	0.023	0.040	1.543	1.872	2.012	3.421	6.191	6.801	14.079
0.00017	0.00115	0.00201	0.07665	0.09298	0.09998	0.16995	0.30757	0.33789	0.69943
8.679E-07	7.655E-07	6.875E-07	6.690E-07	6.226E-07	5.901E-07	5.890E-07	4.207E-07	3.534E-07	3.243E-07
15.065	15.347	16.849	17.037	30.512	30.559	43.752	49.668	66.289	67.040
0.74842	0.76241	0.83705	0.84638	1.51582	1.51815	2.17359	2.46749	3.29320	3.33052
3.234E-07	3.208E-07	2.919E-07	2.388E-07	1.940E-07	1.925E-07	1.841E-07	1.415E-07	1.311E-07	1.301E-07
67.134	74.458	74.505	84.647	84.882	92.253	93.098	93.239	93.333	95.164
3.33519	3.69906	3.70139	4.20522	4.21688	4.58309	4.62507	4.63207	4.63674	4.72770
8.032E-08	6.449E-08	3.010E-08	1.806E-08	1.220E-08					
95.258	95.540	97.230	99.624	100.000					
4.73237	4.74636	4.83034	4.94929	4.96795					

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (2) = 0.699

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (3) = 2.171

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 3.696
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 4.202

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
11	1	-11.07050	-16.81968	-1.23725
11	2	-13.77855	-16.95348	-1.29168
11	3	-14.34482	-19.62263	-2.61332
11	4	-14.95230	-23.84048	-4.97344
11	5	-15.24768	NUMXQ(K)= 5	
		2.914E-06	0.050	1.000
		1.955E-06	0.149	3.000
		1.603E-06	0.248	5.000
		1.204E-06	0.497	10.000
		1.007E-06	0.745	15.000
		8.786E-07	0.994	20.000
		7.874E-07	1.242	25.000
		7.182E-07	1.490	30.000
		6.632E-07	1.739	35.000
		6.181E-07	1.987	40.000
		5.711E-07	2.236	45.000
		5.082E-07	2.484	50.000
		4.565E-07	2.732	55.000
		4.133E-07	2.981	60.000
		3.767E-07	3.229	65.000
		3.453E-07	3.478	70.000
		3.156E-07	3.726	75.000
		2.722E-07	3.974	80.000
		1.201E-06	0.5	10.06

ANNUAL AVERAGE = 3.09E-09

K= 11 FIVEXQ(K)= 1.201E-06 FIVEPR(K)=10.065

FUMIGATION X/Q AT THE BOUNDARY: 2.85E-05

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	7.442E-01	3.613E-01	3.314E-01	2.419E-01	2.081E-01	1.693E-02
0.423	1.502	19.549	22.507	51.573	95.258	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 512 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE ENE SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)	MEANDER	BLDG WAKE	USED
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED	
AT 131.4 METERS												CA=1292.SQ.METERS			
A	6.0	0.33	1500.	0.	131.	270.1	1000.0	0.0	0.000E+00	0.000E+00	1.940E-07				
A	8.9	0.14	1500.	0.	131.	270.1	1000.0	0.0	0.000E+00	0.000E+00	1.311E-07				
A	11.6	0.09	1500.	0.	131.	270.1	1000.0	0.0	0.000E+00	0.000E+00	1.011E-07				
A	26.5	0.09	1500.	0.	131.	270.1	1000.0	0.0	0.000E+00	0.000E+00	4.410E-08				
B	3.6	0.05	1500.	0.	131.	203.2	170.9	0.0	0.000E+00	0.000E+00	1.888E-06				
B	6.0	0.38	1500.	0.	131.	203.2	170.9	0.0	0.000E+00	0.000E+00	1.133E-06				
B	8.9	0.89	1500.	0.	131.	203.2	170.9	0.0	0.000E+00	0.000E+00	7.655E-07				
B	11.6	0.09	1500.	0.	131.	203.2	170.9	0.0	0.000E+00	0.000E+00	5.901E-07				
B	26.5	0.05	1500.	0.	131.	203.2	170.9	0.0	0.000E+00	0.000E+00	2.575E-07				
C	3.6	0.14	1500.	0.	131.	154.3	88.4	0.0	0.000E+00	0.000E+00	2.141E-06				
C	6.0	1.22	1500.	0.	131.	154.3	88.4	0.0	0.000E+00	0.000E+00	1.285E-06				
C	8.9	1.46	1500.	0.	131.	154.3	88.4	0.0	0.000E+00	0.000E+00	8.679E-07				
C	11.6	0.19	1500.	0.	131.	154.3	88.4	0.0	0.000E+00	0.000E+00	6.690E-07				
C	26.5	0.05	1500.	0.	131.	154.3	88.4	0.0	0.000E+00	0.000E+00	2.919E-07				
D	0.2	0.00	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05				
D	1.7	0.71	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06				
D	3.6	6.02	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06				
D	6.0	9.93	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07				
D	8.9	8.94	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07				
D	11.6	1.03	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07				
D	26.5	0.28	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07				
E	0.3	0.02	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06				
E	1.8	2.54	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06				
E	3.9	8.80	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07				
E	6.5	13.97	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07				
E	9.6	12.75	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07				
E	12.5	1.41	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07				
E	28.5	0.05	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08				
F	0.3	0.02	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06				
F	1.8	1.55	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07				
F	3.9	5.50	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07				
F	6.5	8.33	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07				
F	9.6	5.13	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07				
F	12.5	0.85	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.003E-07				

G	1.8	0.85	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	1.60	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	3.29	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	1.22	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08
G	12.5	0.05	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	9.405E-09

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 514 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

ENE SECTOR BOUNDARY DISTANCE = 1500.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.
THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.
THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.224E-06	2.141E-06	1.888E-06	1.285E-06	1.262E-06	1.133E-06	1.038E-06
0.002	0.020	0.038	0.743	0.884	0.931	2.154	4.695	5.071	11.092
0.00008	0.00098	0.00186	0.03685	0.04385	0.04618	0.10683	0.23278	0.25144	0.55001
8.679E-07	7.655E-07	6.875E-07	6.690E-07	6.226E-07	5.901E-07	5.890E-07	4.207E-07	3.534E-07	3.243E-07
12.551	13.444	14.997	15.185	25.111	25.205	34.001	42.939	56.910	57.945
0.62232	0.66663	0.74361	0.75294	1.24510	1.24977	1.68595	2.12913	2.82189	2.87320
3.208E-07	2.919E-07	2.575E-07	2.388E-07	1.940E-07	1.925E-07	1.841E-07	1.415E-07	1.311E-07	1.301E-07
63.449	63.496	63.543	76.291	76.621	84.947	86.358	86.640	86.781	91.909
3.14611	3.14844	3.15077	3.78289	3.79921	4.21207	4.28205	4.29604	4.30304	4.55728
1.011E-07	1.003E-07	8.032E-08	6.449E-08	4.410E-08	3.010E-08	1.806E-08	1.220E-08	9.405E-09	
92.003	92.850	92.897	93.744	93.838	95.437	98.730	99.953	100.000	
4.56195	4.60394	4.60627	4.64825	4.65292	4.73222	4.89550	4.95615	4.95848	

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2) = 0.001

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3) = 0.549

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 1.684
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 3.143
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(6)= 3.780

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
12	1	-11.07050	-16.19649	-1.06775
12	2	-11.63677	-16.93195	-1.23998
12	3	-13.77855	-17.21345	-1.35067
12	4	-14.34482	-19.23746	-2.30366
12	5	-14.95230	-21.54826	-3.54592
12	6	-15.24768	NUMXQ(K) = 6	
		2.630E-06	0.050	1.000
		1.763E-06	0.149	3.000
		1.445E-06	0.248	5.000
		1.085E-06	0.496	10.000
		8.977E-07	0.744	15.000
		7.780E-07	0.992	20.000
		6.938E-07	1.240	25.000
		6.301E-07	1.488	30.000
		5.734E-07	1.735	35.000
		5.057E-07	1.983	40.000
		4.517E-07	2.231	45.000
		4.075E-07	2.479	50.000
		3.708E-07	2.727	55.000
		3.397E-07	2.975	60.000
		3.088E-07	3.223	65.000
		2.744E-07	3.471	70.000
		2.455E-07	3.719	75.000
		1.081E-06	0.5	10.08

ANNUAL AVERAGE = 2.80E-09

K= 12 FIVEXQ(K)= 1.081E-06 FIVEPR(K)=10.084

FUMIGATION X/Q AT THE BOUNDARY: 2.85E-05

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	7.442E-01	3.613E-01	3.314E-01	2.419E-01	2.081E-01	1.693E-02
0.659	2.117	23.491	26.549	53.458	92.991	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 516 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE E SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN HT	EFF PLUME HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS			CA=1292.SQ.METERS								
A	3.6	0.03	1500.	0.	131.	270.1	1000.0	0.0	0.000E+00	0.000E+00	3.234E-07
A	6.0	0.24	1500.	0.	131.	270.1	1000.0	0.0	0.000E+00	0.000E+00	1.940E-07
A	8.9	0.63	1500.	0.	131.	270.1	1000.0	0.0	0.000E+00	0.000E+00	1.311E-07
A	11.6	0.42	1500.	0.	131.	270.1	1000.0	0.0	0.000E+00	0.000E+00	1.011E-07
A	26.5	0.06	1500.	0.	131.	270.1	1000.0	0.0	0.000E+00	0.000E+00	4.410E-08
B	3.6	0.12	1500.	0.	131.	203.2	170.9	0.0	0.000E+00	0.000E+00	1.888E-06
B	6.0	0.63	1500.	0.	131.	203.2	170.9	0.0	0.000E+00	0.000E+00	1.133E-06
B	8.9	0.81	1500.	0.	131.	203.2	170.9	0.0	0.000E+00	0.000E+00	7.655E-07
B	11.6	0.36	1500.	0.	131.	203.2	170.9	0.0	0.000E+00	0.000E+00	5.901E-07
B	26.5	0.18	1500.	0.	131.	203.2	170.9	0.0	0.000E+00	0.000E+00	2.575E-07
C	3.6	0.15	1500.	0.	131.	154.3	88.4	0.0	0.000E+00	0.000E+00	2.141E-06
C	6.0	1.25	1500.	0.	131.	154.3	88.4	0.0	0.000E+00	0.000E+00	1.285E-06
C	8.9	1.67	1500.	0.	131.	154.3	88.4	0.0	0.000E+00	0.000E+00	8.679E-07
C	11.6	0.86	1500.	0.	131.	154.3	88.4	0.0	0.000E+00	0.000E+00	6.690E-07
C	26.5	0.39	1500.	0.	131.	154.3	88.4	0.0	0.000E+00	0.000E+00	2.919E-07
D	0.2	0.00	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05
D	1.7	0.78	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06
D	3.6	4.21	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06
D	6.0	8.98	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07
D	8.9	11.78	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07
D	11.6	6.71	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07
D	26.5	2.68	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07
E	0.3	0.01	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06
E	1.8	1.61	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06
E	3.9	5.16	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07
E	6.5	11.78	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07
E	9.6	15.99	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07
E	12.5	2.33	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07
E	28.5	0.27	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08
F	0.3	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06
F	1.8	0.89	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07
F	3.9	2.54	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07
F	6.5	5.91	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07
F	9.6	5.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07

Calculation No. PM-1055 Revision 0

Attachment J

Page 517 of 1411

F	12.5	0.72	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.003E-07
G	1.8	0.39	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	1.19	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	2.06	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	1.16	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08
G	12.5	0.03	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	9.405E-09
G	28.5	0.03	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	4.104E-09

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 518 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

E SECTOR BOUNDARY DISTANCE = 1500.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.224E-06	2.141E-06	1.888E-06	1.285E-06	1.262E-06	1.133E-06	1.038E-06
0.002	0.013	0.024	0.799	0.948	1.067	2.320	3.931	4.557	8.763
0.00014	0.00103	0.00184	0.06249	0.07415	0.08348	0.18145	0.30740	0.35639	0.68527
8.679E-07	7.655E-07	6.875E-07	6.690E-07	6.226E-07	5.901E-07	5.890E-07	4.207E-07	3.534E-07	3.243E-07
10.433	11.238	12.133	12.998	21.975	22.333	27.493	39.274	51.056	57.767
0.81589	0.87887	0.94885	1.01649	1.71858	1.74657	2.15010	3.07144	3.99279	4.51761
3.234E-07	3.208E-07	2.919E-07	2.575E-07	2.388E-07	1.940E-07	1.925E-07	1.841E-07	1.415E-07	1.311E-07
57.796	60.332	60.719	60.898	76.885	77.124	83.029	85.355	88.040	88.666
4.51994	4.71821	4.74853	4.76252	6.01276	6.03142	6.49326	6.67520	6.88512	6.93411
1.301E-07	1.011E-07	1.003E-07	8.032E-08	6.449E-08	4.410E-08	3.010E-08	1.806E-08	1.220E-08	9.405E-09
93.677	94.094	94.810	95.079	95.466	95.526	96.719	98.777	99.940	99.970
7.32597	7.35862	7.41461	7.43560	7.46592	7.47059	7.56389	7.72483	7.81580	7.81813
4.104E-09									
100.000									
7.82046									

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS

Calculation No. PM-1055 Revision 0

SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

Attachment J

Page 519 of 1411

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.684
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 2.148
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 4.715
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 6.009

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
13	1	-11.07050	-16.78032	-1.21760
13	2	-13.77855	-16.94279	-1.28350
13	3	-14.34482	-17.84853	-1.73097
13	4	-14.95230	-19.10014	-2.47901
13	5	-15.24768	NUMXQ(K)= 5	
		2.426E-06	0.078	1.000
		1.613E-06	0.235	3.000
		1.315E-06	0.391	5.000
		9.760E-07	0.782	10.000
		8.037E-07	1.173	15.000
		6.958E-07	1.564	20.000
		6.196E-07	1.955	25.000
		5.528E-07	2.346	30.000
		4.930E-07	2.737	35.000
		4.454E-07	3.128	40.000
		4.065E-07	3.519	45.000
		3.739E-07	3.910	50.000
		3.462E-07	4.301	55.000
		3.223E-07	4.692	60.000
		2.935E-07	5.083	65.000
		2.682E-07	5.474	70.000
		2.463E-07	5.865	75.000
		1.188E-06	0.5	6.39

ANNUAL AVERAGE = 5.50E-09

K= 13 FIVEXQ(K)= 1.188E-06 FIVEPR(K)= 6.393

FUMIGATION X/Q AT THE BOUNDARY: 2.85E-05

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	7.442E-01	3.613E-01	3.314E-01	2.419E-01	2.081E-01	1.693E-02
1.372	3.460	18.532	22.857	57.994	95.138	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 520 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE ESE SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN HT	EFF PLUME HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS						CA=1292.SQ.METERS					
A	6.0	0.24	1500.	0.	131.	270.1	1000.0	0.0	0.000E+00	0.000E+00	1.940E-07
A	8.9	0.24	1500.	0.	131.	270.1	1000.0	0.0	0.000E+00	0.000E+00	1.311E-07
A	11.6	0.05	1500.	0.	131.	270.1	1000.0	0.0	0.000E+00	0.000E+00	1.011E-07
A	26.5	0.13	1500.	0.	131.	270.1	1000.0	0.0	0.000E+00	0.000E+00	4.410E-08
B	3.6	0.08	1500.	0.	131.	203.2	170.9	0.0	0.000E+00	0.000E+00	1.888E-06
B	6.0	0.24	1500.	0.	131.	203.2	170.9	0.0	0.000E+00	0.000E+00	1.133E-06
B	8.9	0.53	1500.	0.	131.	203.2	170.9	0.0	0.000E+00	0.000E+00	7.655E-07
B	11.6	0.37	1500.	0.	131.	203.2	170.9	0.0	0.000E+00	0.000E+00	5.901E-07
B	26.5	0.19	1500.	0.	131.	203.2	170.9	0.0	0.000E+00	0.000E+00	2.575E-07
C	3.6	0.13	1500.	0.	131.	154.3	88.4	0.0	0.000E+00	0.000E+00	2.141E-06
C	6.0	0.69	1500.	0.	131.	154.3	88.4	0.0	0.000E+00	0.000E+00	1.285E-06
C	8.9	1.57	1500.	0.	131.	154.3	88.4	0.0	0.000E+00	0.000E+00	8.679E-07
C	11.6	0.80	1500.	0.	131.	154.3	88.4	0.0	0.000E+00	0.000E+00	6.690E-07
C	26.5	0.72	1500.	0.	131.	154.3	88.4	0.0	0.000E+00	0.000E+00	2.919E-07
D	0.2	0.00	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05
D	1.7	1.01	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06
D	3.6	2.59	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06
D	6.0	9.48	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07
D	8.9	17.99	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07
D	11.6	11.96	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07
D	26.5	4.03	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07
E	0.3	0.01	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06
E	1.8	0.96	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06
E	3.9	3.68	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07
E	6.5	9.45	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07
E	9.6	15.56	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07
E	12.5	2.96	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07
E	28.5	0.32	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08
F	0.3	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06
F	1.8	0.75	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07
F	3.9	1.76	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07
F	6.5	3.74	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07
F	9.6	3.68	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07
F	12.5	0.48	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.003E-07

G	1.8	0.37	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	0.93	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	1.17	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	1.04	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08
G	12.5	0.05	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	9.405E-09

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 522 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters.

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

ESE SECTOR BOUNDARY DISTANCE = 1500.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.224E-06	2.141E-06	1.888E-06	1.285E-06	1.262E-06	1.133E-06	1.038E-06
0.002	0.009	0.018	1.032	1.165	1.246	1.939	2.900	3.141	5.730
0.00020	0.00080	0.00155	0.09019	0.10185	0.10885	0.16949	0.25346	0.27446	0.50071
8.679E-07	7.655E-07	6.875E-07	6.690E-07	6.226E-07	5.901E-07	5.890E-07	4.207E-07	3.534E-07	3.243E-07
7.304	7.838	8.585	9.386	18.861	19.235	22.918	40.907	50.356	62.313
0.63833	0.68498	0.75029	0.82027	1.64831	1.68097	2.00286	3.57498	4.40069	5.44566
3.208E-07	2.919E-07	2.575E-07	2.388E-07	1.940E-07	1.925E-07	1.841E-07	1.415E-07	1.311E-07	1.301E-07
64.075	64.795	64.982	80.543	80.783	84.520	87.482	91.512	91.753	95.436
5.59961	5.66259	5.67892	7.03878	7.05977	7.38632	7.64524	7.99745	8.01844	8.34033
1.011E-07	1.003E-07	8.032E-08	6.449E-08	4.410E-08	3.010E-08	1.806E-08	1.220E-08	9.405E-09	
95.489	95.970	96.290	96.664	96.797	97.731	98.906	99.947	100.000	
8.34499	8.38698	8.41497	8.44762	8.45929	8.54092	8.64356	8.73452	8.73919	

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.102
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 0.500

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 2.001
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 5.596
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(6)= 7.035

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
14	1	-11.07050	-17.06457	-1.29990
14	2	-13.05427	-17.44133	-1.42203
14	3	-13.77855	-16.57194	-1.08450
14	4	-14.34482	-17.03368	-1.30934
14	5	-14.95230	-18.98474	-2.53670
14	6	-15.24768	NUMXQ(K)= 6	
		2.271E-06	0.087	1.000
		1.411E-06	0.262	3.000
		1.109E-06	0.437	5.000
		8.364E-07	0.874	10.000
		7.081E-07	1.311	15.000
		6.257E-07	1.748	20.000
		5.618E-07	2.185	25.000
		5.076E-07	2.622	30.000
		4.648E-07	3.059	35.000
		4.298E-07	3.496	40.000
		4.005E-07	3.933	45.000
		3.755E-07	4.370	50.000
		3.538E-07	4.807	55.000
		3.348E-07	5.244	60.000
		3.151E-07	5.680	65.000
		2.867E-07	6.117	70.000
		2.622E-07	6.554	75.000
		2.409E-07	6.991	80.000
		1.038E-06	0.5	5.72

ANNUAL AVERAGE = 5.05E-09

K= 14 FIVEXQ(K)= 1.038E-06 FIVEPR(K)= 5.721

FUMIGATION X/Q AT THE BOUNDARY: 2.85E-05

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	7.442E-01	3.613E-01	3.314E-01	2.419E-01	2.081E-01	1.693E-02
0.667	2.082	12.500	16.423	63.481	96.423	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 524 of 1411

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1 96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE SE SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	6.0	0.04	1500.	0.	131.	270.1	1000.0	0.0	0.000E+00	0.000E+00	1.940E-07			
A	8.9	0.06	1500.	0.	131.	270.1	1000.0	0.0	0.000E+00	0.000E+00	1.311E-07			
A	26.5	0.02	1500.	0.	131.	270.1	1000.0	0.0	0.000E+00	0.000E+00	4.410E-08			
B	3.6	0.08	1500.	0.	131.	203.2	170.9	0.0	0.000E+00	0.000E+00	1.888E-06			
B	6.0	0.04	1500.	0.	131.	203.2	170.9	0.0	0.000E+00	0.000E+00	1.133E-06			
B	8.9	0.19	1500.	0.	131.	203.2	170.9	0.0	0.000E+00	0.000E+00	7.655E-07			
B	11.6	0.08	1500.	0.	131.	203.2	170.9	0.0	0.000E+00	0.000E+00	5.901E-07			
C	3.6	0.06	1500.	0.	131.	154.3	88.4	0.0	0.000E+00	0.000E+00	2.141E-06			
C	6.0	0.55	1500.	0.	131.	154.3	88.4	0.0	0.000E+00	0.000E+00	1.285E-06			
C	8.9	0.74	1500.	0.	131.	154.3	88.4	0.0	0.000E+00	0.000E+00	8.679E-07			
C	11.6	0.59	1500.	0.	131.	154.3	88.4	0.0	0.000E+00	0.000E+00	6.690E-07			
C	26.5	0.13	1500.	0.	131.	154.3	88.4	0.0	0.000E+00	0.000E+00	2.919E-07			
D	0.2	0.00	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05			
D	1.7	0.76	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06			
D	3.6	4.10	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06			
D	6.0	11.52	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07			
D	8.9	22.08	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07			
D	11.6	11.54	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07			
D	26.5	3.91	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07			
E	0.3	0.01	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06			
E	1.8	0.83	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06			
E	3.9	3.61	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07			
E	6.5	11.03	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07			
E	9.6	13.83	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07			
E	12.5	1.89	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07			
E	28.5	0.13	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08			
F	0.3	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06			
F	1.8	0.55	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07			
F	3.9	2.00	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07			
F	6.5	3.78	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07			
F	9.6	1.91	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07			
G	1.8	0.28	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08			
G	3.9	1.49	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08			

G	6.5	1.95	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	0.19	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 526 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

SE SECTOR BOUNDARY DISTANCE = 1500.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.224E-06	2.141E-06	1.888E-06	1.285E-06	1.262E-06	1.133E-06	1.038E-06
0.002	0.008	0.014	0.779	0.843	0.928	1.480	2.309	2.351	6.452
0.00019	0.00084	0.00154	0.08551	0.09251	0.10184	0.16248	0.25345	0.25811	0.70829
8.679E-07	7.655E-07	6.875E-07	6.690E-07	6.226E-07	5.901E-07	5.890E-07	4.207E-07	3.534E-07	3.243E-07
7.195	7.387	7.939	8.534	20.049	20.134	23.746	45.821	56.848	68.385
0.78993	0.81092	0.87157	0.93688	2.20111	2.21044	2.60697	5.03046	6.24104	7.50760
3.208E-07	2.919E-07	2.388E-07	1.940E-07	1.925E-07	1.841E-07	1.415E-07	1.311E-07	1.301E-07	8.032E-08
70.382	70.510	84.341	84.384	88.166	90.057	93.966	94.030	95.942	96.069
7.72686	7.74085	9.25933	9.26399	9.67918	9.88678	10.31596	10.32296	10.53289	10.54688
6.449E-08	4.410E-08	3.010E-08	1.806E-08	1.220E-08					
96.346	96.367	97.854	99.809	100.000					
10.57720	10.57954	10.74281	10.95741	10.97840					

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.707

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 2.604

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 5.027
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 7.723

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
15	1	-11.07050	-16.84185	-1.24856
15	2	-13.77855	-16.49711	-1.10805
15	3	-14.34482	-16.52316	-1.12147
15	4	-14.68142	-16.71908	-1.24076
15	5	-14.95230	NUMXQ(K)= 5	
		2.220E-06	0.110	1.000
		1.443E-06	0.329	3.000
		1.162E-06	0.549	5.000
		8.672E-07	1.098	10.000
		7.278E-07	1.647	15.000
		6.386E-07	2.196	20.000
		5.745E-07	2.745	25.000
		5.249E-07	3.294	30.000
		4.853E-07	3.842	35.000
		4.525E-07	4.391	40.000
		4.248E-07	4.940	45.000
		3.989E-07	5.489	50.000
		3.761E-07	6.038	55.000
		3.559E-07	6.587	60.000
		3.380E-07	7.136	65.000
		3.220E-07	7.685	70.000
		1.210E-06	0.5	4.55

ANNUAL AVERAGE = 4.54E-09

K= 15 FIVEXQ(K)= 1.210E-06 FIVEPR(K)= 4.554

FUMIGATION X/Q AT THE BOUNDARY: 2.85E-05

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	7.442E-01	3.613E-01	3.314E-01	2.419E-01	2.081E-01	1.693E-02
0.127	0.531	8.781	10.863	64.767	96.091	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 528 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE SSE SECTOR.

STABILITY CLASS	WINDSPEED METER/SEC	FREQUENCY PERCENT	DISTANCE METERS	TERRAIN METERS	HT METERS	EFF PLUME METERS	SIGMA-Y METERS	SIGMA-Z METERS	MEANDER-SY METERS	** CHI/Q VALUES (SEC/CUBIC METER)	MEANDER	BLDG WAKE	USED
AT 131.4 METERS										CA=1292.SQ.METERS			
A	3.6	0.02	1500.	0.	131.	131.	270.1	1000.0	0.0	0.000E+00	0.000E+00	3.234E-07	
A	6.0	0.17	1500.	0.	131.	131.	270.1	1000.0	0.0	0.000E+00	0.000E+00	1.940E-07	
A	8.9	0.32	1500.	0.	131.	131.	270.1	1000.0	0.0	0.000E+00	0.000E+00	1.311E-07	
A	11.6	0.02	1500.	0.	131.	131.	270.1	1000.0	0.0	0.000E+00	0.000E+00	1.011E-07	
A	26.5	0.02	1500.	0.	131.	131.	270.1	1000.0	0.0	0.000E+00	0.000E+00	4.410E-08	
B	3.6	0.06	1500.	0.	131.	131.	203.2	170.9	0.0	0.000E+00	0.000E+00	1.888E-06	
B	6.0	0.48	1500.	0.	131.	131.	203.2	170.9	0.0	0.000E+00	0.000E+00	1.133E-06	
B	8.9	0.71	1500.	0.	131.	131.	203.2	170.9	0.0	0.000E+00	0.000E+00	7.655E-07	
B	11.6	0.11	1500.	0.	131.	131.	203.2	170.9	0.0	0.000E+00	0.000E+00	5.901E-07	
C	3.6	0.48	1500.	0.	131.	131.	154.3	88.4	0.0	0.000E+00	0.000E+00	2.141E-06	
C	6.0	2.16	1500.	0.	131.	131.	154.3	88.4	0.0	0.000E+00	0.000E+00	1.285E-06	
C	8.9	2.01	1500.	0.	131.	131.	154.3	88.4	0.0	0.000E+00	0.000E+00	8.679E-07	
C	11.6	0.37	1500.	0.	131.	131.	154.3	88.4	0.0	0.000E+00	0.000E+00	6.690E-07	
D	0.2	0.00	4000.	0.	131.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05	
D	1.7	1.08	4000.	0.	131.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06	
D	3.6	8.31	4000.	0.	131.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06	
D	6.0	20.04	4000.	0.	131.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07	
D	8.9	19.82	4000.	0.	131.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07	
D	11.6	5.23	4000.	0.	131.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07	
D	26.5	1.36	4000.	0.	131.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07	
E	0.3	0.01	9000.	0.	131.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06	
E	1.8	0.73	9000.	0.	131.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06	
E	3.9	4.38	9000.	0.	131.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07	
E	6.5	11.10	9000.	0.	131.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07	
E	9.6	10.11	9000.	0.	131.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07	
E	12.5	0.93	9000.	0.	131.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07	
E	28.5	0.22	9000.	0.	131.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08	
F	0.3	0.01	90000.	0.	131.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06	
F	1.8	0.48	90000.	0.	131.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07	
F	3.9	2.09	90000.	0.	131.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07	
F	6.5	2.72	90000.	0.	131.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07	
F	9.6	0.69	90000.	0.	131.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07	
F	12.5	0.11	90000.	0.	131.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.003E-07	

Calculation No. PM-1055 Revision 0**Attachment J****Page 529 of 1411**

G	1.8	0.41	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	1.27	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	1.84	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	0.11	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08
G	28.5	0.02	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	4.104E-09

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 530 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

SSE SECTOR BOUNDARY DISTANCE = 1500.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.224E-06	2.141E-06	1.888E-06	1.285E-06	1.262E-06	1.133E-06	1.038E-06
0.002	0.008	0.013	1.093	1.568	1.633	3.792	4.527	5.002	13.316
0.00026	0.00083	0.00142	0.11805	0.16936	0.17636	0.40961	0.48892	0.54023	1.43826
8.679E-07	7.655E-07	6.875E-07	6.690E-07	6.226E-07	5.901E-07	5.890E-07	4.207E-07	3.534E-07	3.243E-07
15.324	16.037	16.512	16.879	36.920	37.028	41.412	61.236	72.336	77.562
1.65518	1.73215	1.78347	1.82312	3.98770	3.99937	4.47287	6.61413	7.81304	8.37752
3.234E-07	3.208E-07	2.388E-07	1.940E-07	1.925E-07	1.841E-07	1.415E-07	1.311E-07	1.301E-07	1.011E-07
77.584	79.679	89.785	89.958	92.679	93.608	94.968	95.292	95.983	96.005
8.37985	8.60610	9.69773	9.71638	10.01028	10.11058	10.25753	10.29252	10.36716	10.36949
1.003E-07	8.032E-08	6.449E-08	4.410E-08	3.010E-08	1.806E-08	1.220E-08	4.104E-09		
96.113	96.329	96.739	96.761	98.035	99.870	99.978	100.000		
10.38116	10.40448	10.44880	10.45113	10.58875	10.78701	10.79868	10.80101		

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 1.437

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 4.469

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 6.610
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 8.603
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(6)= 9.694

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
16	1	-11.07050	-16.28116	-1.14424
16	2	-13.77855	-16.31390	-1.15921
16	3	-14.34482	-17.30459	-1.74244
16	4	-14.68142	-17.59806	-1.93737
16	5	-14.95230	-21.01945	-4.44270
16	6	-15.24768	NUMXQ(K) = 6	
		2.842E-06	0.108	1.000
		1.915E-06	0.324	3.000
		1.571E-06	0.540	5.000
		1.178E-06	1.080	10.000
		9.823E-07	1.620	15.000
		8.570E-07	2.160	20.000
		7.677E-07	2.700	25.000
		6.995E-07	3.240	30.000
		6.451E-07	3.780	35.000
		6.003E-07	4.320	40.000
		5.496E-07	4.860	45.000
		5.026E-07	5.401	50.000
		4.627E-07	5.941	55.000
		4.284E-07	6.481	60.000
		3.962E-07	7.021	65.000
		3.674E-07	7.561	70.000
		3.420E-07	8.101	75.000
		3.177E-07	8.641	80.000
		2.737E-07	9.181	85.000
		1.620E-06	0.5	4.63

ANNUAL AVERAGE = 9.67E-09

K= 16 FIVEXQ(K)= 1.620E-06 FIVEPR(K)= 4.629

FUMIGATION X/Q AT THE BOUNDARY: 2.85E-05

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	7.442E-01	3.613E-01	3.314E-01	2.419E-01	2.081E-01	1.693E-02
0.561	1.922	8.017	13.028	68.876	96.350	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 532 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE ALL SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	1.7	0.01	1500.	0.	131.		270.1	1000.0	0.0	0.000E+00	0.000E+00	6.930E-07		
A	3.6	0.51	1500.	0.	131.		270.1	1000.0	0.0	0.000E+00	0.000E+00	3.234E-07		
A	6.0	0.53	1500.	0.	131.		270.1	1000.0	0.0	0.000E+00	0.000E+00	1.940E-07		
A	8.9	0.28	1500.	0.	131.		270.1	1000.0	0.0	0.000E+00	0.000E+00	1.311E-07		
A	11.6	0.06	1500.	0.	131.		270.1	1000.0	0.0	0.000E+00	0.000E+00	1.011E-07		
A	26.5	0.03	1500.	0.	131.		270.1	1000.0	0.0	0.000E+00	0.000E+00	4.410E-08		
B	1.7	0.05	1500.	0.	131.		203.2	170.9	0.0	0.000E+00	0.000E+00	4.046E-06		
B	3.6	0.47	1500.	0.	131.		203.2	170.9	0.0	0.000E+00	0.000E+00	1.888E-06		
B	6.0	0.54	1500.	0.	131.		203.2	170.9	0.0	0.000E+00	0.000E+00	1.133E-06		
B	8.9	0.44	1500.	0.	131.		203.2	170.9	0.0	0.000E+00	0.000E+00	7.655E-07		
B	11.6	0.12	1500.	0.	131.		203.2	170.9	0.0	0.000E+00	0.000E+00	5.901E-07		
B	26.5	0.03	1500.	0.	131.		203.2	170.9	0.0	0.000E+00	0.000E+00	2.575E-07		
C	1.7	0.08	1500.	0.	131.		154.3	88.4	0.0	0.000E+00	0.000E+00	4.588E-06		
C	3.6	0.77	1500.	0.	131.		154.3	88.4	0.0	0.000E+00	0.000E+00	2.141E-06		
C	6.0	1.33	1500.	0.	131.		154.3	88.4	0.0	0.000E+00	0.000E+00	1.285E-06		
C	8.9	1.04	1500.	0.	131.		154.3	88.4	0.0	0.000E+00	0.000E+00	8.679E-07		
C	11.6	0.30	1500.	0.	131.		154.3	88.4	0.0	0.000E+00	0.000E+00	6.690E-07		
C	26.5	0.13	1500.	0.	131.		154.3	88.4	0.0	0.000E+00	0.000E+00	2.919E-07		
D	0.2	0.00	4000.	0.	131.		263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05		
D	1.7	2.07	4000.	0.	131.		263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06		
D	3.6	9.39	4000.	0.	131.		263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06		
D	6.0	15.72	4000.	0.	131.		263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07		
D	8.9	12.23	4000.	0.	131.		263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07		
D	11.6	4.24	4000.	0.	131.		263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07		
D	26.5	1.39	4000.	0.	131.		263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07		
E	0.3	0.01	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06		
E	1.8	1.97	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06		
E	3.9	8.90	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07		
E	6.5	13.85	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07		
E	9.6	9.53	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07		
E	12.5	1.29	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07		
E	28.5	0.23	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08		
F	0.3	0.01	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06		
F	1.8	1.01	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07		

Calculation No. PM-1055 Revision 0**Attachment J****Page 533 of 1411**

F	3.9	3.14	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07
F	6.5	3.52	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07
F	9.6	1.55	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07
F	12.5	0.16	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.003E-07
F	28.5	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.375E-08
G	1.8	0.43	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	1.17	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	1.14	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	0.31	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08
G	12.5	0.01	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	9.405E-09
G	28.5	0.00	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	4.104E-09

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 534 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

DIRECTION-INDEPENDENT (S.R.P 2.3.4) MODEL.

MINIMUM BOUNDARY DISTANCE = 1500.0 METERS.

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	4.588E-06	4.046E-06	2.224E-06	2.141E-06	1.888E-06	1.285E-06	1.262E-06
0.005	0.019	0.030	0.107	0.154	2.221	2.986	3.457	4.786	6.753
0.00467	0.01866	0.03032	0.10730	0.15395	2.22056	2.98563	3.45680	4.78634	6.75266
1.133E-06	1.038E-06	8.679E-07	7.655E-07	6.930E-07	6.875E-07	6.690E-07	6.226E-07	5.901E-07	5.890E-07
7.296	16.687	17.730	18.170	18.177	19.187	19.491	35.209	35.331	44.227
7.29614	16.68688	17.72952	18.17037	18.17736	19.18735	19.49058	35.20946	35.33075	44.22700
4.207E-07	3.534E-07	3.243E-07	3.234E-07	3.208E-07	2.919E-07	2.575E-07	2.388E-07	1.940E-07	1.925E-07
56.456	70.302	74.543	75.056	78.198	78.324	78.359	87.885	88.417	91.934
56.45642	70.30229	74.54282	75.05598	78.19789	78.32384	78.35883	87.88486	88.41667	91.93412
1.841E-07	1.415E-07	1.311E-07	1.301E-07	1.011E-07	1.003E-07	8.032E-08	6.449E-08	4.410E-08	4.375E-08
93.229	94.616	94.894	96.448	96.506	96.667	96.895	97.329	97.357	97.369
93.22867	94.61652	94.89409	96.44756	96.50587	96.66681	96.89539	97.32925	97.35724	97.36890
3.010E-08	1.806E-08	1.220E-08	9.405E-09	4.104E-09					
98.542	99.678	99.986	99.995	100.000					
98.54216	99.67810	99.98599	99.99532	99.99998					

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS

Calculation No. PM-1055 Revision 0

Attachment J

Page 535 of 1411

SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

3.306E-06	1.000	1.000
2.137E-06	3.000	3.000
1.774E-06	5.000	5.000
1.331E-06	10.000	10.000
1.097E-06	15.000	15.000
9.519E-07	20.000	20.000
8.483E-07	25.000	25.000
7.649E-07	30.000	30.000
6.949E-07	35.000	35.000
6.345E-07	40.000	40.000
5.815E-07	45.000	45.000
5.355E-07	50.000	50.000
4.931E-07	55.000	55.000
4.534E-07	60.000	60.000
4.157E-07	65.000	65.000
3.794E-07	70.000	70.000
3.437E-07	75.000	75.000
3.060E-07	80.000	80.000
2.640E-07	85.000	85.000
1.774E-06	5.0	5.00

K= 17 FIVEXQ(K)= 1.774E-06 FIVEPR(K)= 5.000

FUMIGATION X/Q AT THE BOUNDARY: 2.85E-05

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	7.442E-01	3.613E-01	3.314E-01	2.419E-01	2.081E-01	1.693E-02
1.416	3.074	12.481	16.125	61.163	96.935	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 536 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

FIVE PERCENT OVERALL SITE LIMIT

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	4.588E-06	4.046E-06	2.224E-06	2.141E-06	1.888E-06	1.285E-06	1.262E-06
0.005	0.019	0.030	0.107	0.154	2.221	2.986	3.457	4.786	6.753
0.00467	0.01866	0.03032	0.10730	0.15395	2.22056	2.98563	3.45680	4.78634	6.75266
1.133E-06	1.038E-06	8.679E-07	7.655E-07	6.930E-07	6.875E-07	6.690E-07	6.226E-07	5.901E-07	5.890E-07
7.296	16.687	17.730	18.170	18.177	19.187	19.491	35.209	35.331	44.227
7.29614	16.68688	17.72952	18.17036	18.17736	19.18734	19.49057	35.20946	35.33074	44.22699
4.207E-07	3.534E-07	3.243E-07	3.234E-07	3.208E-07	2.919E-07	2.575E-07	2.388E-07	1.940E-07	1.925E-07
56.456	70.302	74.543	75.056	78.198	78.324	78.359	87.885	88.417	91.934
56.45641	70.30228	74.54280	75.05595	78.19787	78.32383	78.35882	87.88484	88.41667	91.93411
1.841E-07	1.415E-07	1.311E-07	1.301E-07	1.011E-07	1.003E-07	8.032E-08	6.449E-08	4.410E-08	4.375E-08
93.229	94.616	94.894	96.448	96.506	96.667	96.895	97.329	97.357	97.369
93.22868	94.61652	94.89408	96.44754	96.50584	96.66679	96.89538	97.32922	97.35721	97.36887
3.010E-08	1.806E-08	1.220E-08	9.405E-09	4.104E-09					
98.542	99.678	99.986	99.995	100.000					
98.54213	99.67805	99.98595	99.99529	99.99995					

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS

Calculation No. PM-1055 Revision 0

SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

Attachment J

Page 537 of 1411

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
18	1	-11.07050	-14.90007	-0.98007
18	2	-13.05427	-14.54216	-0.79003
18	3	-13.77855	-14.44468	-0.68918
18	4	-14.34482	-14.44013	-0.65774
18	5	-14.95230	-14.36355	-0.75609
18	6	-15.24768	NUMXQ(K) = 6	
		3.306E-06	1.000	1.000
		2.137E-06	3.000	3.000
		1.774E-06	5.000	5.000
		1.331E-06	10.000	10.000
		1.097E-06	15.000	15.000
		9.519E-07	20.000	20.000
		8.483E-07	25.000	25.000
		7.649E-07	30.000	30.000
		6.949E-07	35.000	35.000
		6.345E-07	40.000	40.000
		5.815E-07	45.000	45.000
		5.355E-07	50.000	50.000
		4.931E-07	55.000	55.000
		4.534E-07	60.000	60.000
		4.157E-07	65.000	65.000
		3.794E-07	70.000	70.000
		3.437E-07	75.000	75.000
		3.060E-07	80.000	80.000
		2.640E-07	85.000	85.000
		1.774E-06	5.0	5.00

K= 18 FIVEXQ(K) = 1.774E-06 FIVEPR(K) = 5.000

K	HIGHPR	PR	GRNDVT(K)
1	-2.77173	0.27880	6.21119
2	-1.76750	3.85720	3.52599
3	-2.64522	0.40819	3.10868
4	-2.57624	0.49942	3.53145
5	-2.58095	0.49264	4.76778
6	-2.63094	0.42575	4.27759
7	-2.88449	0.19603	5.37148
8	-2.89684	0.18848	5.07527
9	-2.79457	0.25985	10.00153
10	-2.95803	0.15481	5.86355
11	-2.96941	0.14919	4.96796
12	-3.05342	0.11313	4.95848
13	-2.98501	0.14179	7.82046
14	-3.02072	0.12609	8.73919
15	-2.96026	0.15370	10.97840
16	-2.74014	0.30707	10.80101

K	HOURS (K)	TOTHR
---	-----------	-------

Calculation No. PM-1055 Revision 0

Attachment J

Page 538 of 1411

1	24.42294	24.42294
2	337.89080	362.31380
3	35.75748	398.07130
4	43.74879	441.82000
5	43.15512	484.97520
6	37.29570	522.27090
7	17.17255	539.44340
8	16.51048	555.95390
9	22.76255	578.71650
10	13.56146	592.27800
11	13.06908	605.34700
12	9.91015	615.25720
13	12.42111	627.67830
14	11.04580	638.72410
15	13.46382	652.18790
16	26.89944	679.08730

K	FIVEXQ	SVANN	SLTIME	TIMINT	I	TIME	XQT
1	1.549E-06	5.783E-09	-0.6667	-12.9159	1	8.0	-14.30222
					2	16.0	-14.76434
					3	72.0	-15.76710
					4	624.0	-17.20683
2	1.417E-06	5.708E-09	-0.6577	-13.0109	1	8.0	-14.37847
					2	16.0	-14.83434
					3	72.0	-15.82354
					4	624.0	-17.24379
3	1.724E-06	6.571E-09	-0.6643	-12.8105	1	8.0	-14.19175
					2	16.0	-14.65217
					3	72.0	-15.65126
					4	624.0	-17.08570
4	1.954E-06	9.480E-09	-0.6355	-12.7053	1	8.0	-14.02670
					2	16.0	-14.46716
					3	72.0	-15.42294
					4	624.0	-16.79519
5	1.942E-06	1.026E-08	-0.6253	-12.7185	1	8.0	-14.01874
					2	16.0	-14.45216
					3	72.0	-15.39264
					4	624.0	-16.74294
6	1.803E-06	8.323E-09	-0.6414	-12.7816	1	8.0	-14.11536
					2	16.0	-14.55993
					3	72.0	-15.52462
					4	624.0	-16.90969
7	1.454E-06	5.932E-09	-0.6561	-12.9864	1	8.0	-14.35079
					2	16.0	-14.80559
					3	72.0	-15.79248
					4	624.0	-17.20941

Calculation No. PM-1055 Revision 0**Attachment J****Page 539 of 1411**

8	1.330E-06	3.165E-09	-0.7205	-13.0307	1	8.0	-14.52882
					2	16.0	-15.02821
					3	72.0	-16.11183
					4	624.0	-17.66764
9	1.519E-06	7.504E-09	-0.6333	-12.9584	1	8.0	-14.27536
					2	16.0	-14.71434
					3	72.0	-15.66691
					4	624.0	-17.03455
10	1.244E-06	3.548E-09	-0.6989	-13.1125	1	8.0	-14.56573
					2	16.0	-15.05015
					3	72.0	-16.10130
					4	624.0	-17.61050
11	1.201E-06	3.092E-09	-0.7111	-13.1394	1	8.0	-14.61797
					2	16.0	-15.11083
					3	72.0	-16.18032
					4	624.0	-17.71583
12	1.081E-06	2.799E-09	-0.7104	-13.2451	1	8.0	-14.72224
					2	16.0	-15.21462
					3	72.0	-16.28306
					4	624.0	-17.81707
13	1.188E-06	5.495E-09	-0.6411	-13.1991	1	8.0	-14.53228
					2	16.0	-14.97668
					3	72.0	-15.94098
					4	624.0	-17.32549
14	1.038E-06	5.051E-09	-0.6352	-13.3376	1	8.0	-14.65836
					2	16.0	-15.09861
					3	72.0	-16.05393
					4	624.0	-17.42553
15	1.210E-06	4.536E-09	-0.6662	-13.1635	1	8.0	-14.54876
					2	16.0	-15.01052
					3	72.0	-16.01250
					4	624.0	-17.45109
16	1.620E-06	9.671E-09	-0.6107	-12.9100	1	8.0	-14.17995
					2	16.0	-14.60326
					3	72.0	-15.52182
					4	624.0	-16.84064
17	1.774E-06	1.026E-08	-0.6145	-12.8165	1	8.0	-14.09426
					2	16.0	-14.52020
					3	72.0	-15.44445
					4	624.0	-16.77145
18	1.774E-06	1.026E-08	-0.6145	-12.8165	1	8.0	-14.09426
					2	16.0	-14.52020

3	72.0	-15.44445
4	624.0	-16.77145

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 541 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

 RELATIVE CONCENTRATION (X/Q) VALUES (SEC/CUBIC METER)
 VERSUS
 AVERAGING TIME

DOWNWIND DISTANCE								HOURS PER YEAR MAX		
								0-2 HR X/Q IS		
SECTOR	(METERS)	0-2 HOURS	0-8 HOURS	8-24 HOURS	1-4 DAYS	4-30 DAYS	ANNUAL AVERAGE	IN SECTOR	EXCEEDED	DOWNWIND
S	1500.	1.55E-06	6.15E-07	3.87E-07	1.42E-07	3.37E-08	5.78E-09	24.4		S
SSW	1500.	1.42E-06	5.70E-07	3.61E-07	1.34E-07	3.24E-08	5.71E-09	337.9		SSW
SW	1500.	1.72E-06	6.86E-07	4.33E-07	1.59E-07	3.80E-08	6.57E-09	35.8		SW
WSW	1500.	1.95E-06	8.10E-07	5.21E-07	2.00E-07	5.08E-08	9.48E-09	43.7		WSW
W	1500.	1.94E-06	8.16E-07	5.29E-07	2.07E-07	5.35E-08	1.03E-08	43.2		W
WNW	1500.	1.80E-06	7.41E-07	4.75E-07	1.81E-07	4.53E-08	8.32E-09	37.3		WNW
NW	1500.	1.45E-06	5.86E-07	3.72E-07	1.38E-07	3.36E-08	5.93E-09	17.2		NW
NNW	1500.	1.33E-06	4.90E-07	2.97E-07	1.01E-07	2.12E-08	3.16E-09	16.5		NNW
N	1500.	1.52E-06	6.31E-07	4.07E-07	1.57E-07	4.00E-08	7.50E-09	22.8		N
NNE	1500.	1.24E-06	4.72E-07	2.91E-07	1.02E-07	2.25E-08	3.55E-09	13.6		NNE
NE	1500.	1.20E-06	4.48E-07	2.74E-07	9.40E-08	2.02E-08	3.09E-09	13.1		NE
ENE	1500.	1.08E-06	4.04E-07	2.47E-07	8.48E-08	1.83E-08	2.80E-09	9.9		ENE
E	1500.	1.19E-06	4.88E-07	3.13E-07	1.19E-07	2.99E-08	5.50E-09	12.4		E
ESE	1500.	1.04E-06	4.30E-07	2.77E-07	1.07E-07	2.71E-08	5.05E-09	11.0		ESE
SE	1500.	1.21E-06	4.80E-07	3.03E-07	1.11E-07	2.64E-08	4.54E-09	13.5		SE
SSE	1500.	1.62E-06	6.95E-07	4.55E-07	1.82E-07	4.86E-08	9.67E-09	26.9		SSE
MAX X/Q		1.95E-06							TOTAL HOURS AROUND SITE:	679.1
SRP 2.3.4	1500.	1.77E-06	7.57E-07	4.94E-07	1.96E-07	5.20E-08	1.03E-08			
SITE LIMIT		1.77E-06	7.57E-07	4.94E-07	1.96E-07	5.20E-08	1.03E-08			

THE FIVE-PERCENT-FOR-THE-ENTIRE-SITE X/Q IS LIMITING.

X/Q VALUES (SEC/CUBIC METER) FOR FUMIGATION AT THE BOUNDARY:

DOWNWIND DISTANCE FUMIGATION

SECTOR	(METERS)	X/Q
S	1500.	2.85E-05
SSW	1500.	2.85E-05
SW	1500.	2.85E-05
WSW	1500.	2.85E-05
W	1500.	2.85E-05
WNW	1500.	2.85E-05
NW	1500.	2.85E-05
NNW	1500.	2.85E-05
N	1500.	2.85E-05
NNE	1500.	2.85E-05
NE	1500.	2.85E-05
ENE	1500.	2.85E-05
E	1500.	2.85E-05

Calculation No. PM-1055 Revision 0**Attachment J****Page 542 of 1411**

ESE	1500.	2.85E-05
SE	1500.	2.85E-05
SSE	1500.	2.85E-05

****NOTE****: VALUES ON THIS PAGE ARE APPROXIMATIONS ONLY.
CHECK THE REASONABLENESS OF THE ENVELOPES
COMPUTED FOR THE 0-2 HOUR VALUES. FOR ANY
FAULTY ENVELOPES, ADJUST THE ABOVE VALUES.

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 543 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE S SECTOR.

STABILITY CLASS	WINDSPEED METER/SEC	FREQUENCY PERCENT	DISTANCE METERS	TERRAIN METERS	HT METERS	EFF METERS	PLUME METERS	HT METERS	SIGMA-Y METERS	SIGMA-Z METERS	MEANDER-SY METERS	** CHI/Q VALUES (SEC/CUBIC METER)
												MEANDER BLDG WAKE USED CA=1292.SQ.METERS
AT 131.4 METERS												
A	3.6	0.23	2000.	0.	131.	350.3	1000.0	0.0	0.000E+00	0.000E+00	2.494E-07	
A	8.9	0.08	2000.	0.	131.	350.3	1000.0	0.0	0.000E+00	0.000E+00	1.011E-07	
A	11.6	0.08	2000.	0.	131.	350.3	1000.0	0.0	0.000E+00	0.000E+00	7.794E-08	
B	3.6	0.49	2000.	0.	131.	263.4	233.7	0.0	0.000E+00	0.000E+00	1.222E-06	
B	6.0	0.15	2000.	0.	131.	263.4	233.7	0.0	0.000E+00	0.000E+00	7.333E-07	
B	8.9	0.38	2000.	0.	131.	263.4	233.7	0.0	0.000E+00	0.000E+00	4.954E-07	
B	11.6	0.04	2000.	0.	131.	263.4	233.7	0.0	0.000E+00	0.000E+00	3.819E-07	
C	3.6	1.16	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06	
C	6.0	1.58	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06	
C	8.9	0.68	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07	
C	11.6	0.15	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	6.230E-07	
C	26.5	0.04	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	2.719E-07	
D	0.2	0.01	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05	
D	1.7	2.22	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06	
D	3.6	12.39	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06	
D	6.0	19.57	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07	
D	8.9	14.87	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07	
D	11.6	2.74	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07	
D	26.5	0.56	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07	
E	0.3	0.02	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06	
E	1.8	2.25	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06	
E	3.9	8.83	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07	
E	6.5	13.78	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07	
E	9.6	5.86	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07	
E	12.5	0.86	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07	
E	28.5	0.26	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08	
F	0.3	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06	
F	1.8	0.98	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07	
F	3.9	3.72	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07	
F	6.5	3.04	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07	
F	9.6	0.15	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07	
F	12.5	0.04	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.003E-07	
G	1.8	0.41	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08	

Calculation No. PM-1055 Revision 0**Attachment J****Page 544 of 1411**

G	3.9	1.77	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	0.60	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	0.04	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 545 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

S SECTOR BOUNDARY DISTANCE = 2000.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED:

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.224E-06	1.994E-06	1.262E-06	1.222E-06	1.196E-06	1.038E-06	8.082E-07
0.005	0.021	0.032	2.248	3.412	5.665	6.154	7.731	20.123	20.799
0.00031	0.00131	0.00201	0.13963	0.21193	0.35189	0.38221	0.48017	1.24991	1.29189
7.333E-07	6.875E-07	6.230E-07	6.226E-07	5.890E-07	4.954E-07	4.207E-07	3.819E-07	3.534E-07	3.243E-07
20.950	21.926	22.076	41.642	50.467	50.842	65.714	65.751	79.533	82.275
1.30122	1.36187	1.37120	2.58644	3.13459	3.15791	4.08159	4.08392	4.93996	5.11024
3.208E-07	2.719E-07	2.494E-07	2.388E-07	1.925E-07	1.841E-07	1.415E-07	1.301E-07	1.011E-07	1.003E-07
85.992	86.030	86.255	92.114	95.156	96.019	96.583	96.733	96.808	96.845
5.34116	5.34349	5.35748	5.72136	5.91029	5.96394	5.99893	6.00826	6.01292	6.01525
8.032E-08	7.794E-08	6.449E-08	3.010E-08	1.806E-08	1.220E-08				
97.108	97.183	97.597	99.362	99.962	100.000				
6.03158	6.03625	6.06190	6.17153	6.20885	6.21119				

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 1.248

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 3.132

Calculation No. PM-1055 Revision 0

Attachment J

Page 546 of 1411

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (4) = 4.936
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (5) = 5.337

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
1	1	-11.07050	-16.44480	-1.18929
1	2	-13.77855	-17.11857	-1.48983
1	3	-14.34482	-18.85805	-2.42414
1	4	-14.85564	-19.04664	-2.53836
1	5	-14.95230	NUMXQ(K) = 5	
		3.358E-06	0.062	1.000
		2.272E-06	0.186	3.000
		1.869E-06	0.311	5.000
		1.411E-06	0.621	10.000
		1.185E-06	0.932	15.000
		1.041E-06	1.242	20.000
		9.141E-07	1.553	25.000
		8.193E-07	1.863	30.000
		7.450E-07	2.174	35.000
		6.849E-07	2.484	40.000
		6.350E-07	2.795	45.000
		5.926E-07	3.106	50.000
		5.365E-07	3.416	55.000
		4.875E-07	3.727	60.000
		4.457E-07	4.037	65.000
		4.097E-07	4.348	70.000
		3.784E-07	4.658	75.000
		3.509E-07	4.969	80.000
		3.255E-07	5.280	85.000
		1.544E-06	0.5	8.05

ANNUAL AVERAGE = 9.04E-09

K= 1 FIVEXQ(K) = 1.544E-06 FIVEPR(K) = 8.050

FUMIGATION X/Q AT THE BOUNDARY: 2.20E-05

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	8.538E-01	5.200E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
0.376	1.427	5.032	12.967	65.322	97.183	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 547 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE SSW SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	3.6	0.60	2000.	0.	131.		350.3	1000.0	0.0	0.000E+00	0.000E+00	2.494E-07		
A	6.0	0.60	2000.	0.	131.		350.3	1000.0	0.0	0.000E+00	0.000E+00	1.496E-07		
A	8.9	0.26	2000.	0.	131.		350.3	1000.0	0.0	0.000E+00	0.000E+00	1.011E-07		
A	11.6	0.13	2000.	0.	131.		350.3	1000.0	0.0	0.000E+00	0.000E+00	7.794E-08		
B	1.7	0.13	2000.	0.	131.		263.4	233.7	0.0	0.000E+00	0.000E+00	2.619E-06		
B	3.6	1.52	2000.	0.	131.		263.4	233.7	0.0	0.000E+00	0.000E+00	1.222E-06		
B	6.0	0.99	2000.	0.	131.		263.4	233.7	0.0	0.000E+00	0.000E+00	7.333E-07		
B	8.9	0.20	2000.	0.	131.		263.4	233.7	0.0	0.000E+00	0.000E+00	4.954E-07		
B	11.6	0.13	2000.	0.	131.		263.4	233.7	0.0	0.000E+00	0.000E+00	3.819E-07		
C	1.7	0.33	2000.	0.	131.		200.0	114.9	0.0	0.000E+00	0.000E+00	4.272E-06		
C	3.6	1.46	2000.	0.	131.		200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06		
C	6.0	1.26	2000.	0.	131.		200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06		
C	8.9	0.53	2000.	0.	131.		200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07		
C	11.6	0.07	2000.	0.	131.		200.0	114.9	0.0	0.000E+00	0.000E+00	6.230E-07		
C	26.5	0.26	2000.	0.	131.		200.0	114.9	0.0	0.000E+00	0.000E+00	2.719E-07		
D	0.2	0.01	4000.	0.	131.		263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05		
D	1.7	3.84	4000.	0.	131.		263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06		
D	3.6	13.96	4000.	0.	131.		263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06		
D	6.0	23.09	4000.	0.	131.		263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07		
D	8.9	10.19	4000.	0.	131.		263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07		
D	11.6	1.79	4000.	0.	131.		263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07		
D	26.5	0.46	4000.	0.	131.		263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07		
E	0.3	0.02	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06		
E	1.8	2.91	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06		
E	3.9	10.85	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07		
E	6.5	13.30	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07		
E	9.6	2.51	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07		
E	12.5	0.53	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07		
E	28.5	0.07	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08		
F	0.3	0.01	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06		
F	1.8	1.26	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07		
F	3.9	2.51	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07		
F	6.5	1.65	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07		
F	9.6	0.07	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07		

G	1.8	0.93	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	1.26	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	0.33	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 549 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

SSW SECTOR BOUNDARY DISTANCE = 2000.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.
THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.
THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	4.272E-06	2.619E-06	2.224E-06	1.994E-06	1.262E-06	1.222E-06	1.196E-06
0.009	0.029	0.044	0.375	0.507	4.344	5.799	8.710	10.231	11.488
0.00031	0.00104	0.00155	0.01321	0.01788	0.15316	0.20448	0.30711	0.36076	0.40507
1.038E-06	8.082E-07	7.333E-07	6.875E-07	6.230E-07	6.226E-07	5.890E-07	4.954E-07	4.207E-07	3.819E-07
25.446	25.976	26.968	28.225	28.291	51.378	62.227	62.425	72.613	72.745
0.89724	0.91590	0.95089	0.99520	0.99754	1.81159	2.19412	2.20112	2.56033	2.56499
3.534E-07	3.243E-07	3.208E-07	2.719E-07	2.494E-07	2.388E-07	1.925E-07	1.841E-07	1.496E-07	1.415E-07
86.042	87.828	90.342	90.606	91.202	93.716	95.369	95.899	96.494	96.957
3.03383	3.09681	3.18544	3.19477	3.21577	3.30440	3.36272	3.38138	3.40237	3.41870
1.301E-07	1.011E-07	8.032E-08	7.794E-08	6.449E-08	3.010E-08	1.806E-08			
97.023	97.288	97.354	97.486	98.412	99.669	100.000			
3.42103	3.43036	3.43269	3.43736	3.47001	3.51433	3.52599			

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.204
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 0.896

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 2.192
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 3.031
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(6)= 3.182

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
2	1	-11.07050	-16.69990	-1.24475
2	2	-13.12558	-16.84345	-1.29474
2	3	-13.77855	-17.59163	-1.61080
2	4	-14.34482	-21.73182	-3.66483
2	5	-14.85564	-23.23730	-4.46721
2	6	-14.95230	NUMXQ(K)= 6	
		3.791E-06	0.035	1.000
		2.564E-06	0.106	3.000
		2.112E-06	0.176	5.000
		1.586E-06	0.353	10.000
		1.326E-06	0.529	15.000
		1.163E-06	0.705	20.000
		1.046E-06	0.881	25.000
		9.397E-07	1.058	30.000
		8.547E-07	1.234	35.000
		7.861E-07	1.410	40.000
		7.292E-07	1.587	45.000
		6.811E-07	1.763	50.000
		6.397E-07	1.939	55.000
		6.036E-07	2.116	60.000
		5.507E-07	2.292	65.000
		4.908E-07	2.468	70.000
		4.403E-07	2.644	75.000
		3.973E-07	2.821	80.000
		3.604E-07	2.997	85.000
		3.233E-07	3.173	90.000
		1.360E-06	0.5	14.18

ANNUAL AVERAGE = 7.31E-09

K= 2 FIVEXQ(K)= 1.360E-06 FIVEPR(K)=14.180

FUMIGATION X/Q AT THE BOUNDARY: 2.20E-05

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	8.538E-01	5.200E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
1.588	4.565	8.467	13.973	67.300	97.486	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 551 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE SW SECTOR.

STABILITY CLASS	WINDSPEED METER/SEC	FREQUENCY PERCENT	DISTANCE METERS	TERRAIN METERS	HT METERS	EFF PLUME METERS	HT METERS	SIGMA-Y METERS	SIGMA-Z METERS	MEANDER-SY METERS	** CHI/Q VALUES (SEC/CUBIC METER)	
											MEANDER	BLDG WAKE CA=1292.SQ.METERS
												USED
A	3.6	1.73	2000.	0.	131.	350.3	1000.0	0.0	0.000E+00	0.000E+00	2.494E-07	
A	6.0	1.50	2000.	0.	131.	350.3	1000.0	0.0	0.000E+00	0.000E+00	1.496E-07	
A	8.9	0.68	2000.	0.	131.	350.3	1000.0	0.0	0.000E+00	0.000E+00	1.011E-07	
B	1.7	0.15	2000.	0.	131.	263.4	233.7	0.0	0.000E+00	0.000E+00	2.619E-06	
B	3.6	1.35	2000.	0.	131.	263.4	233.7	0.0	0.000E+00	0.000E+00	1.222E-06	
B	6.0	0.98	2000.	0.	131.	263.4	233.7	0.0	0.000E+00	0.000E+00	7.333E-07	
B	8.9	0.15	2000.	0.	131.	263.4	233.7	0.0	0.000E+00	0.000E+00	4.954E-07	
B	11.6	0.08	2000.	0.	131.	263.4	233.7	0.0	0.000E+00	0.000E+00	3.819E-07	
C	1.7	0.90	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	4.272E-06	
C	3.6	2.10	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06	
C	6.0	0.68	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06	
C	8.9	0.30	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07	
D	0.2	0.02	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05	
D	1.7	8.10	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06	
D	3.6	17.86	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06	
D	6.0	18.83	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07	
D	8.9	6.38	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07	
D	11.6	0.98	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07	
D	26.5	0.90	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07	
E	0.3	0.02	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06	
E	1.8	2.70	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06	
E	3.9	11.25	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07	
E	6.5	11.71	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07	
E	9.6	1.95	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07	
E	12.5	0.60	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07	
E	28.5	0.08	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08	
F	0.3	0.02	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06	
F	1.8	1.65	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07	
F	3.9	2.55	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07	
F	6.5	0.98	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07	
F	9.6	0.08	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07	
G	1.8	0.83	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08	
G	3.9	1.65	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08	

G	6.5	0.30	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
---	-----	------	--------	----	------	--------	------	-----	-----------	-----------	-----------

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 553 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

SW SECTOR BOUNDARY DISTANCE = 2000.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.
THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.
THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	4.272E-06	2.619E-06	2.224E-06	1.994E-06	1.262E-06	1.222E-06	1.196E-06
0.018	0.038	0.057	0.957	1.107	9.211	11.311	14.013	15.363	16.039
0.00057	0.00117	0.00176	0.02975	0.03441	0.28633	0.35164	0.43561	0.47759	0.49859
1.038E-06	8.082E-07	7.333E-07	6.875E-07	6.226E-07	5.890E-07	4.954E-07	4.207E-07	3.819E-07	3.534E-07
33.896	34.196	35.172	36.823	55.656	66.911	67.061	73.438	73.514	85.219
1.05373	1.06306	1.09338	1.14470	1.73016	2.08004	2.08470	2.28297	2.28530	2.64917
3.243E-07	3.208E-07	2.494E-07	2.388E-07	1.925E-07	1.841E-07	1.496E-07	1.415E-07	1.301E-07	1.011E-07
86.194	88.745	90.471	92.422	93.397	93.997	95.498	96.398	96.473	97.149
2.67950	2.75880	2.81245	2.87310	2.90342	2.92208	2.96873	2.99672	2.99905	3.02005
8.032E-08	6.449E-08	3.010E-08	1.806E-08						
97.224	98.049	99.700	100.000						
3.02238	3.04804	3.09935	3.10868						

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2) = 0.286

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3) = 0.351

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 1.052
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 2.078
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(6)= 2.647
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(7)= 2.756

K I XQSAVE(K, I) XQINT(K, I) XQSLOP(K, I)

3 1 -11.07050 -16.32397 -1.19691
 3 2 -13.01641 -17.46994 -1.61160
 3 3 -13.12558 -17.65530 -1.68037
 3 4 -13.77855 -18.63234 -2.10386
 3 5 -14.34482 -24.50639 -4.98622
 3 6 -14.85564 -25.50283 -5.50105
 3 7 -14.95230 NUMXQ(K)= 7

4.892E-06	0.031	1.000
3.371E-06	0.093	3.000
2.804E-06	0.155	5.000
2.129E-06	0.311	10.000
1.698E-06	0.466	15.000
1.435E-06	0.622	20.000
1.254E-06	0.777	25.000
1.121E-06	0.933	30.000
1.012E-06	1.088	35.000
9.084E-07	1.243	40.000
8.249E-07	1.399	45.000
7.557E-07	1.554	50.000
6.974E-07	1.710	55.000
6.474E-07	1.865	60.000
6.041E-07	2.021	65.000
5.362E-07	2.176	70.000
4.640E-07	2.332	75.000
4.046E-07	2.487	80.000
3.554E-07	2.642	85.000

1.631E-06 0.5 16.08

ANNUAL AVERAGE = 8.50E-09

K= 3 FIVEXQ(K)= 1.631E-06 FIVEPR(K)=16.084

FUMIGATION X/Q AT THE BOUNDARY: 2.20E-05

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	8.538E-01	5.200E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
3.902	6.603	10.580	15.851	68.917	97.224	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 555 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE WSW SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	3.6	2.58	2000.	0.	131.	350.3	1000.0	0.0	0.000E+00	0.000E+00	2.494E-07			
A	6.0	1.92	2000.	0.	131.	350.3	1000.0	0.0	0.000E+00	0.000E+00	1.496E-07			
A	8.9	1.19	2000.	0.	131.	350.3	1000.0	0.0	0.000E+00	0.000E+00	1.011E-07			
A	11.6	0.07	2000.	0.	131.	350.3	1000.0	0.0	0.000E+00	0.000E+00	7.794E-08			
B	1.7	0.59	2000.	0.	131.	263.4	233.7	0.0	0.000E+00	0.000E+00	2.619E-06			
B	3.6	1.65	2000.	0.	131.	263.4	233.7	0.0	0.000E+00	0.000E+00	1.222E-06			
B	6.0	0.99	2000.	0.	131.	263.4	233.7	0.0	0.000E+00	0.000E+00	7.333E-07			
B	8.9	0.07	2000.	0.	131.	263.4	233.7	0.0	0.000E+00	0.000E+00	4.954E-07			
C	1.7	0.99	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	4.272E-06			
C	3.6	2.44	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06			
C	6.0	1.12	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06			
C	8.9	0.20	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07			
D	0.2	0.02	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05			
D	1.7	7.86	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06			
D	3.6	22.19	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06			
D	6.0	18.36	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07			
D	8.9	4.43	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07			
D	11.6	0.73	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07			
D	26.5	0.13	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07			
E	0.3	0.03	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06			
E	1.8	4.03	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06			
E	3.9	14.46	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07			
E	6.5	6.67	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07			
E	9.6	0.73	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07			
E	12.5	0.26	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07			
E	28.5	0.07	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08			
F	0.3	0.02	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06			
F	1.8	1.72	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07			
F	3.9	1.92	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07			
F	6.5	0.53	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07			
G	1.8	0.66	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08			
G	3.9	1.25	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08			
G	6.5	0.13	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08			

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 556 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

WSW SECTOR BOUNDARY DISTANCE = 2000.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED. THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR. THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	4.272E-06	2.619E-06	2.224E-06	1.994E-06	1.262E-06	1.222E-06	1.196E-06
0.018	0.046	0.066	1.057	1.651	9.511	11.955	15.984	17.636	18.758
0.00063	0.00164	0.00234	0.03733	0.05832	0.33589	0.42219	0.56448	0.62279	0.66244
1.038E-06	8.082E-07	7.333E-07	6.875E-07	6.226E-07	5.890E-07	4.954E-07	4.207E-07	3.534E-07	3.243E-07
40.951	41.149	42.140	43.857	62.219	76.684	76.750	81.176	87.847	88.573
1.44617	1.45317	1.48816	1.54880	2.19725	2.70807	2.71040	2.86668	3.10226	3.12792
3.208E-07	2.494E-07	2.388E-07	1.925E-07	1.841E-07	1.496E-07	1.415E-07	1.011E-07	8.032E-08	7.794E-08
90.489	93.065	93.791	94.320	94.584	96.499	96.631	97.820	97.886	97.952
3.19557	3.28653	3.31219	3.33085	3.34018	3.40782	3.41249	3.45448	3.45681	3.45914
6.449E-08	3.010E-08	1.806E-08							
98.613	99.868	100.000							
3.48247	3.52678	3.53145							

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED. THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (2)= 0.336
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (3)= 0.422

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 1.445
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 2.705
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(6)= 3.193
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(7)= 3.309

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
4	1	-11.07050	-16.19967	-1.17425
4	2	-13.01641	-16.87397	-1.42298
4	3	-13.12558	-16.95463	-1.45360
4	4	-13.77855	-18.55563	-2.18633
4	5	-14.34482	-30.42542	-8.34935
4	6	-14.95230	-49.09881	-18.42558
4	7	-15.24768	NUMXQ(K)= 7	
		4.920E-06	0.035	1.000
		3.403E-06	0.106	3.000
		2.834E-06	0.177	5.000
		2.171E-06	0.353	10.000
		1.780E-06	0.530	15.000
		1.535E-06	0.706	20.000
		1.364E-06	0.883	25.000
		1.236E-06	1.059	30.000
		1.134E-06	1.236	35.000
		1.052E-06	1.413	40.000
		9.562E-07	1.589	45.000
		8.715E-07	1.766	50.000
		8.004E-07	1.942	55.000
		7.398E-07	2.119	60.000
		6.875E-07	2.295	65.000
		6.418E-07	2.472	70.000
		6.015E-07	2.649	75.000
		5.051E-07	2.825	80.000
		4.045E-07	3.002	85.000
		3.274E-07	3.178	90.000
		1.833E-06	0.5	14.16

ANNUAL AVERAGE = 1.13E-08

K= 4 FIVEXQ(K)= 1.833E-06 FIVEPR(K)=14.158

FUMIGATION X/Q AT THE BOUNDARY: 2.20E-05

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	8.538E-01	5.200E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
5.746	9.049	13.804	17.985	71.702	97.952	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 558 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE W SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	1.7	0.15	2000.	0.	131.	350.3	1000.0	0.0	0.000E+00	0.000E+00	5.344E-07			
A	3.6	4.26	2000.	0.	131.	350.3	1000.0	0.0	0.000E+00	0.000E+00	2.494E-07			
A	6.0	2.25	2000.	0.	131.	350.3	1000.0	0.0	0.000E+00	0.000E+00	1.496E-07			
A	8.9	0.34	2000.	0.	131.	350.3	1000.0	0.0	0.000E+00	0.000E+00	1.011E-07			
B	1.7	0.24	2000.	0.	131.	263.4	233.7	0.0	0.000E+00	0.000E+00	2.619E-06			
B	3.6	2.74	2000.	0.	131.	263.4	233.7	0.0	0.000E+00	0.000E+00	1.222E-06			
B	6.0	0.59	2000.	0.	131.	263.4	233.7	0.0	0.000E+00	0.000E+00	7.333E-07			
B	8.9	0.05	2000.	0.	131.	263.4	233.7	0.0	0.000E+00	0.000E+00	4.954E-07			
C	1.7	0.05	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	4.272E-06			
C	3.6	2.45	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06			
C	6.0	0.68	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06			
C	8.9	0.15	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07			
C	11.6	0.05	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	6.230E-07			
D	0.2	0.01	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05			
D	1.7	5.63	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06			
D	3.6	21.28	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06			
D	6.0	16.19	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07			
D	8.9	6.46	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07			
D	11.6	1.57	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07			
D	26.5	0.39	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07			
E	0.3	0.02	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06			
E	1.8	2.94	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06			
E	3.9	13.85	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07			
E	6.5	7.88	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07			
E	9.6	2.84	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07			
E	12.5	0.59	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07			
E	28.5	0.98	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08			
F	0.3	0.02	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06			
F	1.8	1.52	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07			
F	3.9	1.66	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07			
F	6.5	0.64	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07			
F	28.5	0.20	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.375E-08			
G	1.8	0.64	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08			

G	3.9	0.64	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	0.10	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 560 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

W SECTOR BOUNDARY DISTANCE = 2000.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	4.272E-06	2.619E-06	2.224E-06	1.994E-06	1.262E-06	1.222E-06	1.196E-06
0.013	0.034	0.051	0.100	0.345	5.971	8.417	11.352	14.092	14.777
0.00061	0.00160	0.00244	0.00477	0.01643	0.28467	0.40130	0.54125	0.67187	0.70453
1.038E-06	8.082E-07	7.333E-07	6.875E-07	6.230E-07	6.226E-07	5.890E-07	5.344E-07	4.954E-07	4.207E-07
36.058	36.205	36.792	38.309	38.358	54.551	68.396	68.543	68.592	75.049
1.71917	1.72617	1.75416	1.82647	1.82880	2.60087	3.26097	3.26797	3.27030	3.57820
3.534E-07	3.243E-07	3.208E-07	2.494E-07	2.388E-07	1.925E-07	1.841E-07	1.496E-07	1.415E-07	1.011E-07
82.926	84.492	86.155	90.411	93.249	93.885	94.472	96.722	97.114	97.456
3.95373	4.02837	4.10768	4.31061	4.44590	4.47622	4.50421	4.61151	4.63017	4.64649
8.032E-08	6.449E-08	4.375E-08	3.010E-08	1.806E-08					
98.434	99.070	99.266	99.902	100.000					
4.69314	4.72347	4.73280	4.76312	4.76779					

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.401

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 1.717

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4) = 3.258
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5) = 4.104
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(6) = 4.442

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
5	1	-11.07050	-16.28584	-1.19194
5	2	-13.12558	-16.35930	-1.21964
5	3	-13.77855	-18.18657	-2.08319
5	4	-14.34482	-24.96866	-5.76079
5	5	-14.95230	-28.75765	-7.93999
5	6	-15.24768	NUMXQ(K) = 6	
		4.340E-06	0.048	1.000
		2.959E-06	0.143	3.000
		2.445E-06	0.238	5.000
		1.856E-06	0.477	10.000
		1.559E-06	0.715	15.000
		1.371E-06	0.954	20.000
		1.237E-06	1.192	25.000
		1.135E-06	1.430	30.000
		1.053E-06	1.669	35.000
		9.503E-07	1.907	40.000
		8.585E-07	2.146	45.000
		7.827E-07	2.384	50.000
		7.190E-07	2.622	55.000
		6.646E-07	2.861	60.000
		6.175E-07	3.099	65.000
		5.548E-07	3.337	70.000
		4.636E-07	3.576	75.000
		3.910E-07	3.814	80.000
		3.327E-07	4.053	85.000
		2.727E-07	4.291	90.000
		1.819E-06	0.5	10.49

ANNUAL AVERAGE = 1.23E-08

K= 5 FIVEXQ(K)= 1.819E-06 FIVEPR(K)=10.487

FUMIGATION X/Q AT THE BOUNDARY: 2.20E-05

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	8.538E-01	5.200E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
6.996	10.616	13.992	18.021	69.549	98.630	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 562 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE WNW SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	3.6	2.40	2000.	0.	131.		350.3	1000.0	0.0	0.000E+00	0.000E+00	2.494E-07		
A	6.0	2.40	2000.	0.	131.		350.3	1000.0	0.0	0.000E+00	0.000E+00	1.496E-07		
A	8.9	0.16	2000.	0.	131.		350.3	1000.0	0.0	0.000E+00	0.000E+00	1.011E-07		
A	11.6	0.05	2000.	0.	131.		350.3	1000.0	0.0	0.000E+00	0.000E+00	7.794E-08		
A	26.5	0.05	2000.	0.	131.		350.3	1000.0	0.0	0.000E+00	0.000E+00	3.401E-08		
B	3.6	1.58	2000.	0.	131.		263.4	233.7	0.0	0.000E+00	0.000E+00	1.222E-06		
B	6.0	1.36	2000.	0.	131.		263.4	233.7	0.0	0.000E+00	0.000E+00	7.333E-07		
B	8.9	0.11	2000.	0.	131.		263.4	233.7	0.0	0.000E+00	0.000E+00	4.954E-07		
B	11.6	0.05	2000.	0.	131.		263.4	233.7	0.0	0.000E+00	0.000E+00	3.819E-07		
C	3.6	3.54	2000.	0.	131.		200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06		
C	6.0	1.42	2000.	0.	131.		200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06		
C	8.9	0.22	2000.	0.	131.		200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07		
C	11.6	0.11	2000.	0.	131.		200.0	114.9	0.0	0.000E+00	0.000E+00	6.230E-07		
D	0.2	0.01	4000.	0.	131.		263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05		
D	1.7	4.69	4000.	0.	131.		263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06		
D	3.6	16.58	4000.	0.	131.		263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06		
D	6.0	16.79	4000.	0.	131.		263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07		
D	8.9	7.63	4000.	0.	131.		263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07		
D	11.6	1.42	4000.	0.	131.		263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07		
D	26.5	0.11	4000.	0.	131.		263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07		
E	0.3	0.02	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06		
E	1.8	3.27	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06		
E	3.9	10.91	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07		
E	6.5	14.01	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07		
E	9.6	3.44	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07		
E	12.5	1.15	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07		
E	28.5	0.22	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08		
F	0.3	0.01	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06		
F	1.8	1.25	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07		
F	3.9	2.84	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07		
F	6.5	1.31	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07		
F	9.6	0.11	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07		
F	28.5	0.05	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	4.375E-08		

G	1.8	0.27	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	0.33	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	0.11	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 564 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

WNW SECTOR BOUNDARY DISTANCE = 2000.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.
THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.
THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.224E-06	1.994E-06	1.262E-06	1.222E-06	1.196E-06	1.038E-06	8.082E-07
0.011	0.034	0.048	4.738	8.282	11.554	13.135	14.553	31.130	31.348
0.00045	0.00145	0.00207	0.20267	0.35428	0.49423	0.56187	0.62252	1.33161	1.34094
7.333E-07	6.875E-07	6.230E-07	6.226E-07	5.890E-07	4.954E-07	4.207E-07	3.819E-07	3.534E-07	3.243E-07
32.711	33.965	34.074	50.869	61.775	61.884	69.518	69.573	83.587	85.005
1.39925	1.45290	1.45756	2.17598	2.64249	2.64715	2.97370	2.97604	3.57550	3.63614
3.208E-07	2.494E-07	2.388E-07	1.925E-07	1.841E-07	1.496E-07	1.415E-07	1.301E-07	1.011E-07	8.032E-08
87.840	90.239	93.675	94.983	96.128	98.528	98.637	98.746	98.909	99.128
3.75743	3.86006	4.00701	4.06299	4.11198	4.21461	4.21927	4.22394	4.23094	4.24027
7.794E-08	6.449E-08	4.375E-08	3.401E-08	3.010E-08	1.806E-08				
99.182	99.455	99.509	99.564	99.891	100.000				
4.24260	4.25426	4.25659	4.25893	4.27292	4.27759				

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.354

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 1.330

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4) = 2.640
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5) = 3.572
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(6) = 3.754

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
6	1	-11.07050	-16.29680	-1.17750
6	2	-13.12558	-16.82107	-1.37217
6	3	-13.77855	-18.25103	-2.01707
6	4	-14.34482	-21.73028	-3.81367
6	5	-14.85564	-22.53970	-4.26270
6	6	-14.95230	NUMXQ(K) = 6	
		4.242E-06	0.043	1.000
		2.914E-06	0.128	3.000
		2.419E-06	0.214	5.000
		1.827E-06	0.428	10.000
		1.506E-06	0.642	15.000
		1.306E-06	0.856	20.000
		1.165E-06	1.069	25.000
		1.058E-06	1.283	30.000
		9.457E-07	1.497	35.000
		8.491E-07	1.711	40.000
		7.708E-07	1.925	45.000
		7.059E-07	2.139	50.000
		6.511E-07	2.353	55.000
		6.041E-07	2.567	60.000
		5.415E-07	2.780	65.000
		4.784E-07	2.994	70.000
		4.257E-07	3.208	75.000
		3.812E-07	3.422	80.000
		3.421E-07	3.636	85.000
		1.698E-06	0.5	11.69

ANNUAL AVERAGE = 1.01E-08

K= 6 FIVEXQ(K) = 1.698E-06 FIVEPR(K) = 11.689

FUMIGATION X/Q AT THE BOUNDARY: 2.20E-05

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	8.538E-01	5.200E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
5.071	8.179	13.469	19.045	66.278	99.291	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 566 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE NW SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS			METERS		METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS														
CA=1292.SQ.METERS														
A	3.6	0.17	2000.	0.			131.		350.3	1000.0	0.0	0.000E+00	0.000E+00	2.494E-07
A	6.0	0.87	2000.	0.			131.		350.3	1000.0	0.0	0.000E+00	0.000E+00	1.496E-07
A	8.9	0.56	2000.	0.			131.		350.3	1000.0	0.0	0.000E+00	0.000E+00	1.011E-07
B	1.7	0.09	2000.	0.			131.		263.4	233.7	0.0	0.000E+00	0.000E+00	2.619E-06
B	3.6	0.43	2000.	0.			131.		263.4	233.7	0.0	0.000E+00	0.000E+00	1.222E-06
B	6.0	1.17	2000.	0.			131.		263.4	233.7	0.0	0.000E+00	0.000E+00	7.333E-07
B	8.9	0.35	2000.	0.			131.		263.4	233.7	0.0	0.000E+00	0.000E+00	4.954E-07
B	11.6	0.04	2000.	0.			131.		263.4	233.7	0.0	0.000E+00	0.000E+00	3.819E-07
C	3.6	0.61	2000.	0.			131.		200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06
C	6.0	2.69	2000.	0.			131.		200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06
C	8.9	0.48	2000.	0.			131.		200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07
D	0.2	0.00	4000.	0.			131.		263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05
D	1.7	1.95	4000.	0.			131.		263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06
D	3.6	14.72	4000.	0.			131.		263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06
D	6.0	20.76	4000.	0.			131.		263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07
D	8.9	6.99	4000.	0.			131.		263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07
D	11.6	0.61	4000.	0.			131.		263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07
D	26.5	0.30	4000.	0.			131.		263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07
E	0.3	0.02	9000.	0.			131.		389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06
E	1.8	2.65	9000.	0.			131.		389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06
E	3.9	14.98	9000.	0.			131.		389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07
E	6.5	15.16	9000.	0.			131.		389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07
E	9.6	4.26	9000.	0.			131.		389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07
E	12.5	0.69	9000.	0.			131.		389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07
E	28.5	0.52	9000.	0.			131.		389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08
F	0.3	0.01	90000.	0.			131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06
F	1.8	1.22	90000.	0.			131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07
F	3.9	3.52	90000.	0.			131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07
F	6.5	2.08	90000.	0.			131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07
F	9.6	0.30	90000.	0.			131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07
G	1.8	0.17	90000.	0.			131.		1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	1.22	90000.	0.			131.		1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	0.35	90000.	0.			131.		1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08

G	9.6	0.04	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08
---	-----	------	--------	----	------	--------	------	-----	-----------	-----------	-----------

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 568 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

NW SECTOR BOUNDARY DISTANCE = 2000.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.
THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.
THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.619E-06	2.224E-06	1.994E-06	1.262E-06	1.222E-06	1.196E-06	1.038E-06
0.004	0.023	0.037	0.124	2.078	2.686	5.335	5.769	8.462	23.182
0.00024	0.00125	0.00200	0.00667	0.11163	0.14429	0.28657	0.30990	0.45451	1.24524
8.082E-07	7.333E-07	6.875E-07	6.226E-07	5.890E-07	4.954E-07	4.207E-07	3.819E-07	3.534E-07	3.243E-07
23.660	24.833	26.048	46.805	61.787	62.134	69.125	69.169	84.324	84.932
1.27090	1.33388	1.39919	2.51413	3.31885	3.33751	3.71305	3.71538	4.52943	4.56209
3.208E-07	2.494E-07	2.388E-07	1.925E-07	1.841E-07	1.496E-07	1.415E-07	1.301E-07	1.011E-07	8.032E-08
88.449	88.623	92.878	94.963	95.658	96.526	96.830	97.134	97.698	98.220
4.75102	4.76035	4.98894	5.10090	5.13822	5.18487	5.20120	5.21753	5.24785	5.27584
6.449E-08	3.010E-08	1.806E-08	1.220E-08						
98.393	99.609	99.957	100.000						
5.28517	5.35048	5.36914	5.37148						

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2) = 1.244
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3) = 3.316

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 4.526
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 4.747

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
7	1	-11.07050	-16.38296	-1.16096
7	2	-13.77855	-16.89941	-1.39118
7	3	-14.34482	-20.87674	-3.55715
7	4	-14.85564	-22.02550	-4.23582
7	5	-14.95230	NUMXQ(K)= 5	
		3.420E-06	0.054	1.000
		2.346E-06	0.161	3.000
		1.944E-06	0.269	5.000
		1.484E-06	0.537	10.000
		1.254E-06	0.806	15.000
		1.108E-06	1.074	20.000
		9.962E-07	1.343	25.000
		9.012E-07	1.611	30.000
		8.263E-07	1.880	35.000
		7.652E-07	2.149	40.000
		7.142E-07	2.417	45.000
		6.706E-07	2.686	50.000
		6.329E-07	2.954	55.000
		5.999E-07	3.223	60.000
		5.430E-07	3.491	65.000
		4.815E-07	3.760	70.000
		4.299E-07	4.029	75.000
		3.861E-07	4.297	80.000
		3.478E-07	4.566	85.000
		1.527E-06	0.5	9.31

ANNUAL AVERAGE = 8.31E-09

K= 7 FIVEXQ(K)= 1.527E-06 FIVEPR(K)= 9.308

FUMIGATION X/Q AT THE BOUNDARY: 2.20E-05

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	8.538E-01	5.200E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
1.607	3.691	7.469	14.605	59.944	98.220	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 570 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE NNW SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	3.6	0.09	2000.	0.	131.	350.3	1000.0	0.0	0.000E+00	0.000E+00	2.494E-07			
A	6.0	0.09	2000.	0.	131.	350.3	1000.0	0.0	0.000E+00	0.000E+00	1.496E-07			
B	3.6	0.14	2000.	0.	131.	263.4	233.7	0.0	0.000E+00	0.000E+00	1.222E-06			
B	6.0	0.37	2000.	0.	131.	263.4	233.7	0.0	0.000E+00	0.000E+00	7.333E-07			
B	8.9	0.37	2000.	0.	131.	263.4	233.7	0.0	0.000E+00	0.000E+00	4.954E-07			
B	11.6	0.05	2000.	0.	131.	263.4	233.7	0.0	0.000E+00	0.000E+00	3.819E-07			
C	3.6	0.55	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06			
C	6.0	1.01	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06			
C	8.9	0.46	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07			
C	11.6	0.05	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	6.230E-07			
D	0.2	0.00	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05			
D	1.7	1.61	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06			
D	3.6	11.17	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06			
D	6.0	21.42	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07			
D	8.9	5.42	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07			
D	11.6	0.51	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07			
D	26.5	0.32	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07			
E	0.3	0.02	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06			
E	1.8	2.71	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06			
E	3.9	14.29	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07			
E	6.5	20.36	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07			
E	9.6	7.58	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07			
E	12.5	0.51	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07			
E	28.5	0.09	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08			
F	0.3	0.02	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06			
F	1.8	1.47	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07			
F	3.9	4.14	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07			
F	6.5	3.63	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07			
F	9.6	0.37	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07			
G	1.8	0.41	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08			
G	3.9	0.46	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08			
G	6.5	0.28	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08			
G	9.6	0.05	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08			

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 571 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

NNW SECTOR BOUNDARY DISTANCE = 2000.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.224E-06	1.994E-06	1.262E-06	1.222E-06	1.196E-06	1.038E-06	8.082E-07
0.004	0.023	0.040	1.648	2.200	4.912	5.049	6.060	17.228	17.688
0.00018	0.00116	0.00203	0.08366	0.11165	0.24927	0.25627	0.30759	0.87439	0.89772
7.333E-07	6.875E-07	6.230E-07	6.226E-07	5.890E-07	4.954E-07	4.207E-07	3.819E-07	3.534E-07	3.243E-07
18.056	19.526	19.572	40.989	55.282	55.650	61.073	61.119	81.479	81.984
0.91638	0.99102	0.99335	2.08031	2.80572	2.82438	3.09962	3.10195	4.13526	4.16092
3.208E-07	2.494E-07	2.388E-07	1.925E-07	1.841E-07	1.496E-07	1.415E-07	1.301E-07	8.032E-08	6.449E-08
86.120	86.212	93.796	97.426	97.932	98.024	98.345	98.713	98.805	99.219
4.37084	4.37551	4.76038	4.94465	4.97030	4.97497	4.99130	5.00996	5.01462	5.03561
3.010E-08	1.806E-08	1.220E-08							
99.678	99.954	100.000							
5.05894	5.07293	5.07527							

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2) = 0.873

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3) = 2.803

Calculation No. PM-1055 Revision 0

Attachment J

Page 572 of 1411

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 4.132
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 4.367

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
8	1	-11.07050	-16.63721	-1.20277
8	2	-13.77855	-16.66571	-1.21476
8	3	-14.34482	-19.92232	-2.91929
8	4	-14.85564	-21.30169	-3.71404
8	5	-14.95230	NUMXQ(K)= 5	
		3.100E-06	0.051	1.000
		2.102E-06	0.152	3.000
		1.732E-06	0.254	5.000
		1.311E-06	0.508	10.000
		1.103E-06	0.761	15.000
		9.699E-07	1.015	20.000
		8.747E-07	1.269	25.000
		8.020E-07	1.523	30.000
		7.439E-07	1.776	35.000
		6.960E-07	2.030	40.000
		6.556E-07	2.284	45.000
		6.209E-07	2.538	50.000
		5.906E-07	2.791	55.000
		5.303E-07	3.045	60.000
		4.779E-07	3.299	65.000
		4.335E-07	3.553	70.000
		3.953E-07	3.806	75.000
		3.623E-07	4.060	80.000
		3.283E-07	4.314	85.000
		1.319E-06	0.5	9.85

ANNUAL AVERAGE = 5.55E-09

K= 8 FIVEXQ(K)= 1.319E-06 FIVEPR(K)= 9.852

FUMIGATION X/Q AT THE BOUNDARY: 2.20E-05

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	8.538E-01	5.200E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
0.184	1.103	3.171	12.793	53.241	98.805	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 573 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE N SECTOR.

STABILITY CLASS	WINDSPEED METER/SEC	FREQUENCY PERCENT	DISTANCE METERS	TERRAIN METERS	HT METERS	EFF PLUME METERS	HT METERS	SIGMA-Y METERS	SIGMA-Z METERS	MEANDER-SY METERS	** CHI/Q VALUES (SEC/CUBIC METER)	MEANDER	BLDG WAKE	USED
AT 131.4 METERS											CA=1292.SQ.METERS			
A	6.0	0.28	2000.	0.	131.	350.3	1000.0	0.0	0.000E+00	0.000E+00	1.496E-07			
A	8.9	0.16	2000.	0.	131.	350.3	1000.0	0.0	0.000E+00	0.000E+00	1.011E-07			
B	3.6	0.07	2000.	0.	131.	263.4	233.7	0.0	0.000E+00	0.000E+00	1.222E-06			
B	6.0	0.58	2000.	0.	131.	263.4	233.7	0.0	0.000E+00	0.000E+00	7.333E-07			
B	8.9	0.72	2000.	0.	131.	263.4	233.7	0.0	0.000E+00	0.000E+00	4.954E-07			
B	11.6	0.12	2000.	0.	131.	263.4	233.7	0.0	0.000E+00	0.000E+00	3.819E-07			
B	26.5	0.02	2000.	0.	131.	263.4	233.7	0.0	0.000E+00	0.000E+00	1.667E-07			
C	3.6	0.44	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06			
C	6.0	1.68	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06			
C	8.9	1.56	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07			
C	11.6	0.21	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	6.230E-07			
C	26.5	0.02	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	2.719E-07			
D	0.2	0.00	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05			
D	1.7	0.96	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06			
D	3.6	7.00	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06			
D	6.0	16.51	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07			
D	8.9	11.24	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07			
D	11.6	2.31	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07			
D	26.5	0.68	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07			
E	0.3	0.01	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06			
E	1.8	1.63	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06			
E	3.9	10.14	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07			
E	6.5	20.78	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07			
E	9.6	12.03	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07			
E	12.5	1.49	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07			
E	28.5	0.14	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08			
F	0.3	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06			
F	1.8	0.54	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07			
F	3.9	3.13	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07			
F	6.5	3.03	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07			
F	9.6	1.03	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07			
G	1.8	0.40	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08			
G	3.9	0.79	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08			

G	6.5	0.23	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	0.05	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 575 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

N SECTOR BOUNDARY DISTANCE = 2000.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.
THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.
THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.224E-06	1.994E-06	1.262E-06	1.222E-06	1.196E-06	1.038E-06	8.082E-07
0.002	0.014	0.020	0.976	1.419	3.052	3.122	4.801	11.797	13.360
0.00022	0.00138	0.00200	0.09763	0.14195	0.30523	0.31222	0.48017	1.17992	1.33620
7.333E-07	6.875E-07	6.230E-07	6.226E-07	5.890E-07	4.954E-07	4.207E-07	3.819E-07	3.534E-07	3.243E-07
13.943	14.479	14.689	31.201	41.346	42.069	53.310	53.427	74.206	76.515
1.39451	1.44816	1.46916	3.12058	4.13523	4.20754	5.33182	5.34348	7.42176	7.65268
3.208E-07	2.719E-07	2.388E-07	1.925E-07	1.841E-07	1.667E-07	1.496E-07	1.415E-07	1.301E-07	1.011E-07
79.640	79.663	91.697	94.729	96.222	96.245	96.525	97.201	98.228	98.391
7.96524	7.96757	9.17115	9.47438	9.62366	9.62599	9.65398	9.72163	9.82426	9.84059
8.032E-08	6.449E-08	3.010E-08	1.806E-08	1.220E-08					
98.531	98.927	99.720	99.953	100.000					
9.85458	9.89423	9.97354	9.99687	10.00153					

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (2) = 1.179

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (3) = 4.132

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 7.418
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 7.962

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
9	1	-11.07050	-16.40848	-1.16160
9	2	-13.77855	-16.20458	-1.07155
9	3	-14.34482	-17.39950	-1.76002
9	4	-14.85564	-18.56257	-2.56472
9	5	-14.95230	NUMXQ(K)= 5	
		2.710E-06	0.100	1.000
		1.821E-06	0.300	3.000
		1.491E-06	0.500	5.000
		1.116E-06	1.000	10.000
		9.387E-07	1.500	15.000
		8.286E-07	2.000	20.000
		7.494E-07	2.500	25.000
		6.884E-07	3.000	30.000
		6.394E-07	3.501	35.000
		5.988E-07	4.001	40.000
		5.491E-07	4.501	45.000
		5.023E-07	5.001	50.000
		4.627E-07	5.501	55.000
		4.286E-07	6.001	60.000
		3.990E-07	6.501	65.000
		3.730E-07	7.001	70.000
		3.483E-07	7.501	75.000
		1.491E-06	0.5	5.00

ANNUAL AVERAGE = 1.08E-08

K= 9 FIVEXQ(K)= 1.491E-06 FIVEPR(K)= 4.999

FUMIGATION X/Q AT THE BOUNDARY: 2.20E-05

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	8.538E-01	5.200E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
0.443	1.959	5.877	13.603	52.296	98.531	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 577 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE NNE SECTOR.

STABILITY CLASS	WINDSPEED METER/SEC	FREQUENCY PERCENT	DISTANCE METERS	TERRAIN METERS	HT METERS	EFF PLUME METERS	SIGMA-Y METERS	SIGMA-Z METERS	MEANDER-SY METERS	** CHI/Q VALUES (SEC/CUBIC METER)		
										MEANDER	BLDG WAKE	USED
AT 131.4 METERS										CA=1292.SQ.METERS		
A	3.6	0.08	2000.	0.	131.	131.	350.3	1000.0	0.0	0.000E+00	0.000E+00	2.494E-07
A	6.0	0.28	2000.	0.	131.	131.	350.3	1000.0	0.0	0.000E+00	0.000E+00	1.496E-07
A	8.9	0.12	2000.	0.	131.	131.	350.3	1000.0	0.0	0.000E+00	0.000E+00	1.011E-07
B	3.6	0.16	2000.	0.	131.	131.	263.4	233.7	0.0	0.000E+00	0.000E+00	1.222E-06
B	6.0	0.56	2000.	0.	131.	131.	263.4	233.7	0.0	0.000E+00	0.000E+00	7.333E-07
B	8.9	0.36	2000.	0.	131.	131.	263.4	233.7	0.0	0.000E+00	0.000E+00	4.954E-07
B	11.6	0.08	2000.	0.	131.	131.	263.4	233.7	0.0	0.000E+00	0.000E+00	3.819E-07
C	3.6	0.20	2000.	0.	131.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06
C	6.0	1.47	2000.	0.	131.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06
C	8.9	0.95	2000.	0.	131.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07
D	0.2	0.00	4000.	0.	131.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05
D	1.7	0.91	4000.	0.	131.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06
D	3.6	7.60	4000.	0.	131.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06
D	6.0	16.91	4000.	0.	131.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07
D	8.9	6.60	4000.	0.	131.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07
D	11.6	0.64	4000.	0.	131.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07
D	26.5	0.36	4000.	0.	131.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07
E	0.3	0.02	9000.	0.	131.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06
E	1.8	2.23	9000.	0.	131.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06
E	3.9	12.73	9000.	0.	131.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07
E	6.5	22.95	9000.	0.	131.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07
E	9.6	9.07	9000.	0.	131.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07
E	12.5	0.76	9000.	0.	131.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07
E	28.5	0.16	9000.	0.	131.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08
F	0.3	0.01	90000.	0.	131.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06
F	1.8	1.27	90000.	0.	131.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07
F	3.9	5.61	90000.	0.	131.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07
F	6.5	4.42	90000.	0.	131.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07
F	9.6	0.91	90000.	0.	131.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07
F	12.5	0.12	90000.	0.	131.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.003E-07
G	1.8	0.36	90000.	0.	131.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	1.23	90000.	0.	131.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	0.84	90000.	0.	131.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08

G 9.6 0.04 90000. 0. 131. 1000.0 46.0 0.0 0.000E+00 0.000E+00 1.220E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 579 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

NNE SECTOR BOUNDARY DISTANCE = 2000.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.224E-06	1.994E-06	1.262E-06	1.222E-06	1.196E-06	1.038E-06	8.082E-07
0.002	0.018	0.033	0.948	1.146	3.374	3.533	5.005	12.603	13.558
0.00012	0.00105	0.00191	0.05556	0.06722	0.19784	0.20717	0.29348	0.73899	0.79497
7.333E-07	6.875E-07	6.226E-07	5.890E-07	4.954E-07	4.207E-07	3.819E-07	3.534E-07	3.243E-07	3.208E-07
14.115	15.388	32.294	45.024	45.382	51.985	52.065	75.018	75.655	81.264
0.82763	0.90227	1.89359	2.64000	2.66099	3.04819	3.05286	4.39872	4.43604	4.76493
2.494E-07	2.388E-07	1.925E-07	1.841E-07	1.496E-07	1.415E-07	1.301E-07	1.011E-07	1.003E-07	8.032E-08
81.343	90.413	94.829	95.584	95.863	96.221	97.136	97.255	97.374	97.534
4.76959	5.30141	5.56032	5.60464	5.62096	5.64196	5.69561	5.70260	5.70960	5.71893
6.449E-08	3.010E-08	1.806E-08	1.220E-08						
97.892	99.125	99.960	100.000						
5.73992	5.81223	5.86121	5.86355						

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLYHANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2) = 0.738
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3) = 2.637

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4) = 4.395
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5) = 4.761

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
10	1	-11.07050	-16.67920	-1.18969
10	2	-13.77855	-16.53336	-1.12987
10	3	-14.34482	-18.63892	-2.21690
10	4	-14.85564	-19.18435	-2.53651
10	5	-14.95230	NUMXQ(K) = 5	
		2.712E-06	0.059	1.000
		1.838E-06	0.176	3.000
		1.514E-06	0.293	5.000
		1.145E-06	0.586	10.000
		9.657E-07	0.880	15.000
		8.546E-07	1.173	20.000
		7.748E-07	1.466	25.000
		7.135E-07	1.759	30.000
		6.644E-07	2.052	35.000
		6.237E-07	2.345	40.000
		5.892E-07	2.639	45.000
		5.323E-07	2.932	50.000
		4.848E-07	3.225	55.000
		4.445E-07	3.518	60.000
		4.099E-07	3.811	65.000
		3.798E-07	4.104	70.000
		3.535E-07	4.398	75.000
		3.270E-07	4.691	80.000
		1.223E-06	0.5	8.53

ANNUAL AVERAGE = 5.45E-09

K= 10 FIVEXQ(K)= 1.223E-06 FIVEPR(K)= 8.527

FUMIGATION X/Q AT THE BOUNDARY: 2.20E-05

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	8.538E-01	5.200E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
0.477	1.631	4.256	16.603	49.623	97.534	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 581 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE NE SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN HT	EFF PLUME HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS						CA=1292.SQ.METERS					
A	3.6	0.09	2000.	0.	131.	350.3	1000.0	0.0	0.000E+00	0.000E+00	2.494E-07
A	6.0	0.23	2000.	0.	131.	350.3	1000.0	0.0	0.000E+00	0.000E+00	1.496E-07
A	8.9	0.09	2000.	0.	131.	350.3	1000.0	0.0	0.000E+00	0.000E+00	1.011E-07
B	3.6	0.14	2000.	0.	131.	263.4	233.7	0.0	0.000E+00	0.000E+00	1.222E-06
B	6.0	0.61	2000.	0.	131.	263.4	233.7	0.0	0.000E+00	0.000E+00	7.333E-07
B	8.9	0.28	2000.	0.	131.	263.4	233.7	0.0	0.000E+00	0.000E+00	4.954E-07
B	11.6	0.05	2000.	0.	131.	263.4	233.7	0.0	0.000E+00	0.000E+00	3.819E-07
C	3.6	0.33	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06
C	6.0	1.41	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06
C	8.9	0.99	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07
C	11.6	0.19	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	6.230E-07
C	26.5	0.05	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	2.719E-07
D	0.2	0.00	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05
D	1.7	1.50	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06
D	3.6	7.28	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06
D	6.0	13.48	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07
D	8.9	5.92	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07
D	11.6	0.75	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07
D	26.5	0.14	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07
E	0.3	0.02	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06
E	1.8	2.77	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06
E	3.9	13.19	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07
E	6.5	16.62	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07
E	9.6	10.14	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07
E	12.5	0.85	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07
E	28.5	0.09	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08
F	0.3	0.02	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06
F	1.8	1.50	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07
F	3.9	7.32	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07
F	6.5	7.37	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07
F	9.6	1.83	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07
G	1.8	0.28	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	1.69	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08

G	6.5	2.39	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	0.38	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 583 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

NE SECTOR: BOUNDARY DISTANCE = 2000.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.224E-06	1.994E-06	1.262E-06	1.222E-06	1.196E-06	1.038E-06	8.082E-07
0.003	0.023	0.040	1.543	1.872	4.642	4.783	6.191	13.469	14.455
0.00017	0.00115	0.00201	0.07665	0.09298	0.23060	0.23759	0.30757	0.66911	0.71809
7.333E-07	6.875E-07	6.230E-07	6.226E-07	5.890E-07	4.954E-07	4.207E-07	3.819E-07	3.534E-07	3.243E-07
15.065	16.567	16.755	30.230	43.424	43.705	49.621	49.668	66.289	67.040
0.74842	0.82306	0.83239	1.50182	2.15726	2.17126	2.46516	2.46749	3.29320	3.33052
3.208E-07	2.719E-07	2.494E-07	2.388E-07	1.925E-07	1.841E-07	1.496E-07	1.415E-07	1.301E-07	1.011E-07
74.365	74.411	74.505	84.647	92.018	92.863	93.098	93.239	95.070	95.164
3.69440	3.69673	3.70139	4.20522	4.57142	4.61341	4.62507	4.63207	4.72304	4.72770
8.032E-08	6.449E-08	3.010E-08	1.806E-08	1.220E-08					
95.258	95.540	97.230	99.624	100.000					
4.73237	4.74636	4.83034	4.94929	4.96795					

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.668
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 2.155

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (4)= 3.691
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (5)= 4.202

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
11	1	-11.07050	-16.86169	-1.24629
11	2	-13.77855	-16.88387	-1.25525
11	3	-14.34482	-19.57294	-2.58468
11	4	-14.95230	-23.75774	-4.92555
11	5	-15.24768	NUMXQ(K)= 5	
		2.879E-06	0.050	1.000
		1.926E-06	0.149	3.000
		1.577E-06	0.248	5.000
		1.182E-06	0.497	10.000
		9.884E-07	0.745	15.000
		8.653E-07	0.994	20.000
		7.779E-07	1.242	25.000
		7.113E-07	1.490	30.000
		6.584E-07	1.739	35.000
		6.148E-07	1.987	40.000
		5.667E-07	2.236	45.000
		5.049E-07	2.484	50.000
		4.541E-07	2.732	55.000
		4.116E-07	2.981	60.000
		3.755E-07	3.229	65.000
		3.445E-07	3.478	70.000
		3.147E-07	3.726	75.000
		2.718E-07	3.974	80.000
		1.179E-06	0.5	10.06

ANNUAL AVERAGE = 4.63E-09

K= 11 FIVEXQ(K)= 1.179E-06 FIVEPR(K)=10.065

FUMIGATION X/Q AT THE BOUNDARY: 2.20E-05

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	8.538E-01	5.200E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
0.423	1.502	4.460	22.507	51.573	95.258	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 585 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE ENE SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	6.0	0.33	2000.	0.	131.		350.3	1000.0	0.0	0.000E+00	0.000E+00	1.496E-07		
A	8.9	0.14	2000.	0.	131.		350.3	1000.0	0.0	0.000E+00	0.000E+00	1.011E-07		
A	11.6	0.09	2000.	0.	131.		350.3	1000.0	0.0	0.000E+00	0.000E+00	7.794E-08		
A	26.5	0.09	2000.	0.	131.		350.3	1000.0	0.0	0.000E+00	0.000E+00	3.401E-08		
B	3.6	0.05	2000.	0.	131.		263.4	233.7	0.0	0.000E+00	0.000E+00	1.222E-06		
B	6.0	0.38	2000.	0.	131.		263.4	233.7	0.0	0.000E+00	0.000E+00	7.333E-07		
B	8.9	0.89	2000.	0.	131.		263.4	233.7	0.0	0.000E+00	0.000E+00	4.954E-07		
B	11.6	0.09	2000.	0.	131.		263.4	233.7	0.0	0.000E+00	0.000E+00	3.819E-07		
B	26.5	0.05	2000.	0.	131.		263.4	233.7	0.0	0.000E+00	0.000E+00	1.667E-07		
C	3.6	0.14	2000.	0.	131.		200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06		
C	6.0	1.22	2000.	0.	131.		200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06		
C	8.9	1.46	2000.	0.	131.		200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07		
C	11.6	0.19	2000.	0.	131.		200.0	114.9	0.0	0.000E+00	0.000E+00	6.230E-07		
C	26.5	0.05	2000.	0.	131.		200.0	114.9	0.0	0.000E+00	0.000E+00	2.719E-07		
D	0.2	0.00	4000.	0.	131.		263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05		
D	1.7	0.71	4000.	0.	131.		263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06		
D	3.6	6.02	4000.	0.	131.		263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06		
D	6.0	9.93	4000.	0.	131.		263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07		
D	8.9	8.94	4000.	0.	131.		263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07		
D	11.6	1.03	4000.	0.	131.		263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07		
D	26.5	0.28	4000.	0.	131.		263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07		
E	0.3	0.02	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06		
E	1.8	2.54	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06		
E	3.9	8.80	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07		
E	6.5	13.97	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07		
E	9.6	12.75	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07		
E	12.5	1.41	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07		
E	28.5	0.05	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08		
F	0.3	0.02	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06		
F	1.8	1.55	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07		
F	3.9	5.50	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07		
F	6.5	8.33	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07		
F	9.6	5.13	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07		
F	12.5	0.85	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	1.003E-07		

G	1.8	0.85	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	1.60	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	3.29	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	1.22	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08
G	12.5	0.05	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	9.405E-09

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 587 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

ENE SECTOR BOUNDARY DISTANCE = 2000.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.224E-06	1.994E-06	1.262E-06	1.222E-06	1.196E-06	1.038E-06	8.082E-07
0.002	0.020	0.038	0.743	0.884	3.425	3.472	4.695	10.716	12.174
0.00008	0.00098	0.00186	0.03685	0.04385	0.16981	0.17214	0.23278	0.53135	0.60366
7.333E-07	6.875E-07	6.230E-07	6.226E-07	5.890E-07	4.954E-07	4.207E-07	3.819E-07	3.534E-07	3.243E-07
12.551	14.103	14.291	24.217	33.013	33.907	42.845	42.939	56.910	57.945
0.62232	0.69929	0.70862	1.20078	1.63696	1.68128	2.12446	2.12913	2.82189	2.87320
3.208E-07	2.719E-07	2.388E-07	1.925E-07	1.841E-07	1.667E-07	1.496E-07	1.415E-07	1.301E-07	1.011E-07
63.449	63.496	76.244	84.571	85.982	86.029	86.358	86.640	91.768	91.909
3.14611	3.14844	3.78055	4.19341	4.26339	4.26572	4.28205	4.29604	4.55029	4.55728
1.003E-07	8.032E-08	7.794E-08	6.449E-08	3.401E-08	3.010E-08	1.806E-08	1.220E-08	9.405E-09	
92.756	92.803	92.897	93.744	93.838	95.437	98.730	99.953	100.000	
4.59927	4.60160	4.60627	4.64825	4.65292	4.73222	4.89550	4.95615	4.95848	

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.001
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 0.531

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4) = 1.635
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5) = 3.143
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(6) = 3.777

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
12	1	-11.07050	-16.19649	-1.06775
12	2	-11.63677	-16.96910	-1.24868
12	3	-13.77855	-17.22817	-1.35007
12	4	-14.34482	-19.05319	-2.20460
12	5	-14.95230	-21.57077	-3.55802
12	6	-15.24768	NUMXQ(K) = 6	
		2.608E-06	0.050	1.000
		1.743E-06	0.149	3.000
		1.427E-06	0.248	5.000
		1.069E-06	0.496	10.000
		8.833E-07	0.744	15.000
		7.656E-07	0.992	20.000
		6.827E-07	1.240	25.000
		6.201E-07	1.488	30.000
		5.592E-07	1.735	35.000
		4.959E-07	1.983	40.000
		4.451E-07	2.231	45.000
		4.034E-07	2.479	50.000
		3.685E-07	2.727	55.000
		3.388E-07	2.975	60.000
		3.088E-07	3.223	65.000
		2.743E-07	3.471	70.000
		2.453E-07	3.719	75.000
		1.065E-06	0.5	10.08

ANNUAL AVERAGE = 3.95E-09

K= 12 FIVEXQ(K)= 1.065E-06 FIVEPR(K)=10.084

FUMIGATION X/Q AT THE BOUNDARY: 2.20E-05

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	8.538E-01	5.200E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
0.659	2.117	5.175	26.549	53.458	92.991	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 589 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE E SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)
CLASS	METER/SEC	PERCENT	METERS	METERS			METERS		METERS	METERS	METERS	MEANDER BLDG WAKE USED
AT 131.4 METERS												
CA=1292.SQ.METERS												
A	3.6	0.03	2000.	0.			131.		350.3	1000.0	0.0	0.000E+00 0.000E+00 2.494E-07
A	6.0	0.24	2000.	0.			131.		350.3	1000.0	0.0	0.000E+00 0.000E+00 1.496E-07
A	8.9	0.63	2000.	0.			131.		350.3	1000.0	0.0	0.000E+00 0.000E+00 1.011E-07
A	11.6	0.42	2000.	0.			131.		350.3	1000.0	0.0	0.000E+00 0.000E+00 7.794E-08
A	26.5	0.06	2000.	0.			131.		350.3	1000.0	0.0	0.000E+00 0.000E+00 3.401E-08
B	3.6	0.12	2000.	0.			131.		263.4	233.7	0.0	0.000E+00 0.000E+00 1.222E-06
B	6.0	0.63	2000.	0.			131.		263.4	233.7	0.0	0.000E+00 0.000E+00 7.333E-07
B	8.9	0.81	2000.	0.			131.		263.4	233.7	0.0	0.000E+00 0.000E+00 4.954E-07
B	11.6	0.36	2000.	0.			131.		263.4	233.7	0.0	0.000E+00 0.000E+00 3.819E-07
B	26.5	0.18	2000.	0.			131.		263.4	233.7	0.0	0.000E+00 0.000E+00 1.667E-07
C	3.6	0.15	2000.	0.			131.		200.0	114.9	0.0	0.000E+00 0.000E+00 1.994E-06
C	6.0	1.25	2000.	0.			131.		200.0	114.9	0.0	0.000E+00 0.000E+00 1.196E-06
C	8.9	1.67	2000.	0.			131.		200.0	114.9	0.0	0.000E+00 0.000E+00 8.082E-07
C	11.6	0.86	2000.	0.			131.		200.0	114.9	0.0	0.000E+00 0.000E+00 6.230E-07
C	26.5	0.39	2000.	0.			131.		200.0	114.9	0.0	0.000E+00 0.000E+00 2.719E-07
D	0.2	0.00	4000.	0.			131.		263.4	78.0	0.0	0.000E+00 0.000E+00 1.556E-05
D	1.7	0.78	4000.	0.			131.		263.4	78.0	0.0	0.000E+00 0.000E+00 2.224E-06
D	3.6	4.21	4000.	0.			131.		263.4	78.0	0.0	0.000E+00 0.000E+00 1.038E-06
D	6.0	8.98	4000.	0.			131.		263.4	78.0	0.0	0.000E+00 0.000E+00 6.226E-07
D	8.9	11.78	4000.	0.			131.		263.4	78.0	0.0	0.000E+00 0.000E+00 4.207E-07
D	11.6	6.71	4000.	0.			131.		263.4	78.0	0.0	0.000E+00 0.000E+00 3.243E-07
D	26.5	2.68	4000.	0.			131.		263.4	78.0	0.0	0.000E+00 0.000E+00 1.415E-07
E	0.3	0.01	9000.	0.			131.		389.6	74.2	0.0	0.000E+00 0.000E+00 8.835E-06
E	1.8	1.61	9000.	0.			131.		389.6	74.2	0.0	0.000E+00 0.000E+00 1.262E-06
E	3.9	5.16	9000.	0.			131.		389.6	74.2	0.0	0.000E+00 0.000E+00 5.890E-07
E	6.5	11.78	9000.	0.			131.		389.6	74.2	0.0	0.000E+00 0.000E+00 3.534E-07
E	9.6	15.99	9000.	0.			131.		389.6	74.2	0.0	0.000E+00 0.000E+00 2.388E-07
E	12.5	2.33	9000.	0.			131.		389.6	74.2	0.0	0.000E+00 0.000E+00 1.841E-07
E	28.5	0.27	9000.	0.			131.		389.6	74.2	0.0	0.000E+00 0.000E+00 8.032E-08
F	0.3	0.01	90000.	0.			131.		1000.0	92.1	0.0	0.000E+00 0.000E+00 4.813E-06
F	1.8	0.89	90000.	0.			131.		1000.0	92.1	0.0	0.000E+00 0.000E+00 6.875E-07
F	3.9	2.54	90000.	0.			131.		1000.0	92.1	0.0	0.000E+00 0.000E+00 3.208E-07
F	6.5	5.91	90000.	0.			131.		1000.0	92.1	0.0	0.000E+00 0.000E+00 1.925E-07
F	9.6	5.01	90000.	0.			131.		1000.0	92.1	0.0	0.000E+00 0.000E+00 1.301E-07

Calculation No. PM-1055 Revision 0**Attachment J****Page 590 of 1411**

F	12.5	0.72	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.003E-07
G	1.8	0.39	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	1.19	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	2.06	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	1.16	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08
G	12.5	0.03	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	9.405E-09
G	28.5	0.03	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	4.104E-09

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 591 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

E SECTOR BOUNDARY DISTANCE = 2000.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.
THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.
THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.224E-06	1.994E-06	1.262E-06	1.222E-06	1.196E-06	1.038E-06	8.082E-07
0.002	0.013	0.024	0.799	0.948	2.559	2.678	3.931	8.136	9.806
0.00014	0.00103	0.00184	0.06249	0.07415	0.20011	0.20944	0.30740	0.63629	0.76691
7.333E-07	6.875E-07	6.230E-07	6.226E-07	5.890E-07	4.954E-07	4.207E-07	3.819E-07	3.534E-07	3.243E-07
10.433	11.328	12.193	21.170	26.330	27.135	38.917	39.274	51.056	57.767
0.81589	0.88587	0.95351	1.65560	2.05913	2.12211	3.04345	3.07144	3.99279	4.51761
3.208E-07	2.719E-07	2.494E-07	2.388E-07	1.925E-07	1.841E-07	1.667E-07	1.496E-07	1.415E-07	1.301E-07
60.302	60.689	60.719	76.706	82.611	84.938	85.117	85.355	88.040	93.051
4.71587	4.74620	4.74853	5.99876	6.46060	6.64254	6.65654	6.67520	6.88512	7.27699
1.011E-07	1.003E-07	8.032E-08	7.794E-08	6.449E-08	3.401E-08	3.010E-08	1.806E-08	1.220E-08	9.405E-09
93.677	94.393	94.661	95.079	95.466	95.526	96.719	98.777	99.940	99.970
7.32597	7.38195	7.40294	7.43560	7.46592	7.47059	7.56389	7.72483	7.81580	7.81813
4.104E-09									
100.000									
7.82046									

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS

Calculation No. PM-1055 Revision 0

SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

Attachment J

Page 592 of 1411

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (2)= 0.636
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (3)= 2.057
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (4)= 4.712
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (5)= 5.995

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
13	1	-11.07050	-16.84906	-1.23226
13	2	-13.77855	-16.91658	-1.25935
13	3	-14.34482	-17.70941	-1.64759
13	4	-14.95230	-19.13362	-2.49867
13	5	-15.24768	NUMXQ(K)= 5	
		2.372E-06	0.078	1.000
		1.570E-06	0.235	3.000
		1.277E-06	0.391	5.000
		9.451E-07	0.782	10.000
		7.811E-07	1.173	15.000
		6.781E-07	1.564	20.000
		6.051E-07	1.955	25.000
		5.383E-07	2.346	30.000
		4.827E-07	2.737	35.000
		4.383E-07	3.128	40.000
		4.017E-07	3.519	45.000
		3.710E-07	3.910	50.000
		3.448E-07	4.301	55.000
		3.221E-07	4.692	60.000
		2.931E-07	5.083	65.000
		2.676E-07	5.474	70.000
		2.456E-07	5.865	75.000
		1.151E-06	0.5	6.39

ANNUAL AVERAGE = 7.14E-09

K= 13 FIVEXQ(K)= 1.151E-06 FIVEPR(K)= 6.393

FUMIGATION X/Q AT THE BOUNDARY: 2.20E-05

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	8.538E-01	5.200E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
1.372	3.460	7.785	22.857	57.994	95.138	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 593 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE ESE SECTOR.

STABILITY CLASS	WINDSPEED METER/SEC AT 131.4 METERS	FREQUENCY PERCENT	DISTANCE METERS	TERRAIN METERS	HT METERS	EFF PLUME METERS	SIGMA-Y METERS	SIGMA-Z METERS	MEANDER-SY METERS	** CHI/Q VALUES (SEC/CUBIC METER)	MEANDER	BLDG WAKE CA=1292.SQ.METERS	USED
A	6.0	0.24	2000.	0.	131.	131.	350.3	1000.0	0.0	0.000E+00	0.000E+00	1.496E-07	
A	8.9	0.24	2000.	0.	131.	131.	350.3	1000.0	0.0	0.000E+00	0.000E+00	1.011E-07	
A	11.6	0.05	2000.	0.	131.	131.	350.3	1000.0	0.0	0.000E+00	0.000E+00	7.794E-08	
A	26.5	0.13	2000.	0.	131.	131.	350.3	1000.0	0.0	0.000E+00	0.000E+00	3.401E-08	
B	3.6	0.08	2000.	0.	131.	131.	263.4	233.7	0.0	0.000E+00	0.000E+00	1.222E-06	
B	6.0	0.24	2000.	0.	131.	131.	263.4	233.7	0.0	0.000E+00	0.000E+00	7.333E-07	
B	8.9	0.53	2000.	0.	131.	131.	263.4	233.7	0.0	0.000E+00	0.000E+00	4.954E-07	
B	11.6	0.37	2000.	0.	131.	131.	263.4	233.7	0.0	0.000E+00	0.000E+00	3.819E-07	
B	26.5	0.19	2000.	0.	131.	131.	263.4	233.7	0.0	0.000E+00	0.000E+00	1.667E-07	
C	3.6	0.13	2000.	0.	131.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06	
C	6.0	0.69	2000.	0.	131.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06	
C	8.9	1.57	2000.	0.	131.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07	
C	11.6	0.80	2000.	0.	131.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	6.230E-07	
C	26.5	0.72	2000.	0.	131.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	2.719E-07	
D	0.2	0.00	4000.	0.	131.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05	
D	1.7	1.01	4000.	0.	131.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06	
D	3.6	2.59	4000.	0.	131.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06	
D	6.0	9.48	4000.	0.	131.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07	
D	8.9	17.99	4000.	0.	131.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07	
D	11.6	11.96	4000.	0.	131.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07	
D	26.5	4.03	4000.	0.	131.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07	
E	0.3	0.01	9000.	0.	131.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06	
E	1.8	0.96	9000.	0.	131.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06	
E	3.9	3.68	9000.	0.	131.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07	
E	6.5	9.45	9000.	0.	131.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07	
E	9.6	15.56	9000.	0.	131.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07	
E	12.5	2.96	9000.	0.	131.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07	
E	28.5	0.32	9000.	0.	131.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08	
F	0.3	0.01	90000.	0.	131.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06	
F	1.8	0.75	90000.	0.	131.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07	
F	3.9	1.76	90000.	0.	131.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07	
F	6.5	3.74	90000.	0.	131.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07	
F	9.6	3.68	90000.	0.	131.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07	
F	12.5	0.48	90000.	0.	131.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.003E-07	

G	1.8	0.37	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	0.93	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	1.17	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	1.04	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08
G	12.5	0.05	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	9.405E-09

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 595 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

ESE SECTOR BOUNDARY DISTANCE = 2000.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.
THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.
THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.224E-06	1.994E-06	1.262E-06	1.222E-06	1.196E-06	1.038E-06	8.082E-07
0.002	0.009	0.018	1.032	1.165	2.126	2.206	2.900	5.489	7.064
0.00020	0.00080	0.00155	0.09019	0.10185	0.18582	0.19282	0.25346	0.47972	0.61734
7.333E-07	6.875E-07	6.230E-07	6.226E-07	5.890E-07	4.954E-07	4.207E-07	3.819E-07	3.534E-07	3.243E-07
7.304	8.052	8.852	18.327	22.011	22.544	40.534	40.907	50.356	62.313
0.63833	0.70364	0.77362	1.60166	1.92355	1.97020	3.54232	3.57498	4.40069	5.44566
3.208E-07	2.719E-07	2.388E-07	1.925E-07	1.841E-07	1.667E-07	1.496E-07	1.415E-07	1.301E-07	1.011E-07
64.075	64.795	80.356	84.093	87.055	87.242	87.482	91.512	95.196	95.436
5.59961	5.66259	7.02245	7.34900	7.60791	7.62424	7.64524	7.99745	8.31933	8.34033
1.003E-07	8.032E-08	7.794E-08	6.449E-08	3.401E-08	3.010E-08	1.806E-08	1.220E-08	9.405E-09	
95.916	96.237	96.290	96.664	96.797	97.731	98.906	99.947	100.000	
8.38231	8.41030	8.41497	8.44762	8.45929	8.54092	8.64356	8.73452	8.73919	

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.090
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 0.479

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 1.921
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 5.596
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(6)= 7.019

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
14	1	-11.07050	-17.09216	-1.30589
14	2	-13.01641	-17.49995	-1.43654
14	3	-13.77855	-16.59804	-1.08839
14	4	-14.34482	-16.96161	-1.26400
14	5	-14.95230	-19.02718	-2.56340
14	6	-15.24768	NUMXQ(K)= 6	
		2.251E-06	0.087	1.000
		1.386E-06	0.262	3.000
		1.086E-06	0.437	5.000
		8.224E-07	0.874	10.000
		6.959E-07	1.311	15.000
		6.146E-07	1.748	20.000
		5.510E-07	2.185	25.000
		4.996E-07	2.622	30.000
		4.588E-07	3.059	35.000
		4.254E-07	3.496	40.000
		3.974E-07	3.933	45.000
		3.734E-07	4.370	50.000
		3.526E-07	4.807	55.000
		3.343E-07	5.244	60.000
		3.150E-07	5.680	65.000
		2.864E-07	6.117	70.000
		2.617E-07	6.554	75.000
		2.402E-07	6.991	80.000
		1.022E-06	0.5	5.72

ANNUAL AVERAGE = 7.65E-09

K= 14 FIVEXQ(K)= 1.022E-06 FIVEPR(K)= 5.721

FUMIGATION X/Q AT THE BOUNDARY: 2.20E-05

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	8.538E-01	5.200E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
0.667	2.082	6.005	16.423	63.481	96.423	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 597 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE SE SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN HT	EFF PLUME HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS						CA=1292.SQ.METERS					
A	6.0	0.04	2000.	0.	131.	350.3	1000.0	0.0	0.000E+00	0.000E+00	1.496E-07
A	8.9	0.06	2000.	0.	131.	350.3	1000.0	0.0	0.000E+00	0.000E+00	1.011E-07
A	26.5	0.02	2000.	0.	131.	350.3	1000.0	0.0	0.000E+00	0.000E+00	3.401E-08
B	3.6	0.08	2000.	0.	131.	263.4	233.7	0.0	0.000E+00	0.000E+00	1.222E-06
B	6.0	0.04	2000.	0.	131.	263.4	233.7	0.0	0.000E+00	0.000E+00	7.333E-07
B	8.9	0.19	2000.	0.	131.	263.4	233.7	0.0	0.000E+00	0.000E+00	4.954E-07
B	11.6	0.08	2000.	0.	131.	263.4	233.7	0.0	0.000E+00	0.000E+00	3.819E-07
C	3.6	0.06	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06
C	6.0	0.55	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06
C	8.9	0.74	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07
C	11.6	0.59	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	6.230E-07
C	26.5	0.13	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	2.719E-07
D	0.2	0.00	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05
D	1.7	0.76	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06
D	3.6	4.10	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06
D	6.0	11.52	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07
D	8.9	22.08	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07
D	11.6	11.54	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07
D	26.5	3.91	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07
E	0.3	0.01	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06
E	1.8	0.83	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06
E	3.9	3.61	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07
E	6.5	11.03	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07
E	9.6	13.83	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07
E	12.5	1.89	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07
E	28.5	0.13	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08
F	0.3	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06
F	1.8	0.55	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07
F	3.9	2.00	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07
F	6.5	3.78	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07
F	9.6	1.91	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07
G	1.8	0.28	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	1.49	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08

G	6.5	1.95	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	0.19	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 599 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

SE SECTOR BOUNDARY DISTANCE = 2000.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED. THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR. THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.224E-06	1.994E-06	1.262E-06	1.222E-06	1.196E-06	1.038E-06	8.082E-07
0.002	0.008	0.014	0.779	0.843	1.671	1.756	2.309	6.409	7.153
0.00019	0.00084	0.00154	0.08551	0.09251	0.18347	0.19280	0.25345	0.70363	0.78527
7.333E-07	6.875E-07	6.230E-07	6.226E-07	5.890E-07	4.954E-07	4.207E-07	3.819E-07	3.534E-07	3.243E-07
7.195	7.748	8.343	19.858	23.470	23.661	45.736	45.821	56.848	68.385
0.78993	0.85058	0.91589	2.18012	2.57664	2.59764	5.02113	5.03046	6.24104	7.50760
3.208E-07	2.719E-07	2.388E-07	1.925E-07	1.841E-07	1.496E-07	1.415E-07	1.301E-07	1.011E-07	8.032E-08
70.382	70.510	84.341	88.123	90.014	90.057	93.966	95.878	95.942	96.069
7.72686	7.74085	9.25933	9.67452	9.88211	9.88678	10.31596	10.52589	10.53289	10.54688
6.449E-08	3.401E-08	3.010E-08	1.806E-08	1.220E-08					
96.346	96.367	97.854	99.809	100.000					
10.57720	10.57954	10.74281	10.95741	10.97840					

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED. THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (2)= 0.703
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (3)= 5.017

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 7.723
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 9.256

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
15	1	-11.07050	-16.84818	-1.24993
15	2	-13.77855	-16.50697	-1.11099
15	3	-14.68142	-16.71181	-1.23566
15	4	-14.95230	-19.20998	-2.99005
15	5	-15.24768	NUMXQ(K)= 5	
		2.216E-06	0.110	1.000
		1.439E-06	0.329	3.000
		1.158E-06	0.549	5.000
		8.645E-07	1.098	10.000
		7.252E-07	1.647	15.000
		6.361E-07	2.196	20.000
		5.723E-07	2.745	25.000
		5.233E-07	3.294	30.000
		4.841E-07	3.842	35.000
		4.518E-07	4.391	40.000
		4.244E-07	4.940	45.000
		3.986E-07	5.489	50.000
		3.758E-07	6.038	55.000
		3.558E-07	6.587	60.000
		3.380E-07	7.136	65.000
		3.220E-07	7.685	70.000
		2.897E-07	8.234	75.000
		2.607E-07	8.783	80.000
		1.206E-06	0.5	4.55

ANNUAL AVERAGE = 8.85E-09

K= 15 FIVEXQ(K)= 1.206E-06 FIVEPR(K)= 4.554

FUMIGATION X/Q AT THE BOUNDARY: 2.20E-05

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	8.538E-01	5.200E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
0.127	0.531	2.613	10.863	64.767	96.091	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 601 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE SSE SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	3.6	0.02	2000.	0.	131.	350.3	1000.0	0.0	0.000E+00	0.000E+00	2.494E-07			
A	6.0	0.17	2000.	0.	131.	350.3	1000.0	0.0	0.000E+00	0.000E+00	1.496E-07			
A	8.9	0.32	2000.	0.	131.	350.3	1000.0	0.0	0.000E+00	0.000E+00	1.011E-07			
A	11.6	0.02	2000.	0.	131.	350.3	1000.0	0.0	0.000E+00	0.000E+00	7.794E-08			
A	26.5	0.02	2000.	0.	131.	350.3	1000.0	0.0	0.000E+00	0.000E+00	3.401E-08			
B	3.6	0.06	2000.	0.	131.	263.4	233.7	0.0	0.000E+00	0.000E+00	1.222E-06			
B	6.0	0.48	2000.	0.	131.	263.4	233.7	0.0	0.000E+00	0.000E+00	7.333E-07			
B	8.9	0.71	2000.	0.	131.	263.4	233.7	0.0	0.000E+00	0.000E+00	4.954E-07			
B	11.6	0.11	2000.	0.	131.	263.4	233.7	0.0	0.000E+00	0.000E+00	3.819E-07			
C	3.6	0.48	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06			
C	6.0	2.16	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06			
C	8.9	2.01	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07			
C	11.6	0.37	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	6.230E-07			
D	0.2	0.00	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05			
D	1.7	1.08	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06			
D	3.6	8.31	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06			
D	6.0	20.04	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07			
D	8.9	19.82	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07			
D	11.6	5.23	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07			
D	26.5	1.36	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07			
E	0.3	0.01	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06			
E	1.8	0.73	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06			
E	3.9	4.38	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07			
E	6.5	11.10	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07			
E	9.6	10.11	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07			
E	12.5	0.93	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07			
E	28.5	0.22	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08			
F	0.3	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06			
F	1.8	0.48	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07			
F	3.9	2.09	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07			
F	6.5	2.72	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07			
F	9.6	0.69	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07			
F	12.5	0.11	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.003E-07			

Calculation No. PM-1055 Revision 0**Attachment J****Page 602 of 1411**

G	1.8	0.41	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	1.27	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	1.84	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	0.11	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08
G	28.5	0.02	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	4.104E-09

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 603 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

SSE SECTOR BOUNDARY DISTANCE = 2000.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.224E-06	1.994E-06	1.262E-06	1.222E-06	1.196E-06	1.038E-06	8.082E-07
0.002	0.008	0.013	1.093	1.568	2.302	2.367	4.527	12.841	14.849
0.00026	0.00083	0.00142	0.11805	0.16936	0.24867	0.25567	0.48892	1.38694	1.60386
7.333E-07	6.875E-07	6.230E-07	6.226E-07	5.890E-07	4.954E-07	4.207E-07	3.819E-07	3.534E-07	3.243E-07
15.324	15.799	16.167	36.207	40.591	41.304	61.128	61.236	72.336	77.562
1.65518	1.70650	1.74615	3.91073	4.38423	4.46121	6.60247	6.61413	7.81305	8.37752
3.208E-07	2.494E-07	2.388E-07	1.925E-07	1.841E-07	1.496E-07	1.415E-07	1.301E-07	1.011E-07	1.003E-07
79.657	79.679	89.785	92.506	93.435	93.608	94.968	95.659	95.983	96.091
8.60377	8.60610	9.69773	9.99162	10.09192	10.11058	10.25753	10.33217	10.36716	10.37882
8.032E-08	7.794E-08	6.449E-08	3.401E-08	3.010E-08	1.806E-08	1.220E-08	4.104E-09		
96.307	96.329	96.739	96.761	98.035	99.870	99.978	100.000		
10.40215	10.40448	10.44880	10.45113	10.58875	10.78702	10.79868	10.80101		

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 1.385
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 4.381

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 6.599
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 8.600
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(6)= 9.694

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
16	1	-11.07050	-16.31277	-1.15118
16	2	-13.77855	-16.30564	-1.14794
16	3	-14.34482	-17.19472	-1.66845
16	4	-14.68142	-17.58405	-1.92690
16	5	-14.95230	-21.00659	-4.43280
16	6	-15.24768	NUMXQ(K)= 6	
		2.812E-06	0.108	1.000
		1.891E-06	0.324	3.000
		1.549E-06	0.540	5.000
		1.159E-06	1.080	10.000
		9.669E-07	1.620	15.000
		8.447E-07	2.160	20.000
		7.575E-07	2.700	25.000
		6.908E-07	3.240	30.000
		6.376E-07	3.780	35.000
		5.937E-07	4.320	40.000
		5.426E-07	4.860	45.000
		4.980E-07	5.401	50.000
		4.601E-07	5.941	55.000
		4.274E-07	6.481	60.000
		3.956E-07	7.021	65.000
		3.670E-07	7.561	70.000
		3.418E-07	8.101	75.000
		3.175E-07	8.641	80.000
		2.737E-07	9.181	85.000
		1.598E-06	0.5	4.63

ANNUAL AVERAGE = 1.45E-08

K= 16 FIVEXQ(K)= 1.598E-06 FIVEPR(K)= 4.629

FUMIGATION X/Q AT THE BOUNDARY: 2.20E-05

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	8.538E-01	5.200E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
0.561	1.922	6.932	13.028	68.876	96.350	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 605 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE ALL SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	1.7	0.01	2000.	0.	131.	350.3	1000.0	0.0	0.000E+00	0.000E+00	5.344E-07			
A	3.6	0.51	2000.	0.	131.	350.3	1000.0	0.0	0.000E+00	0.000E+00	2.494E-07			
A	6.0	0.53	2000.	0.	131.	350.3	1000.0	0.0	0.000E+00	0.000E+00	1.496E-07			
A	8.9	0.28	2000.	0.	131.	350.3	1000.0	0.0	0.000E+00	0.000E+00	1.011E-07			
A	11.6	0.06	2000.	0.	131.	350.3	1000.0	0.0	0.000E+00	0.000E+00	7.794E-08			
A	26.5	0.03	2000.	0.	131.	350.3	1000.0	0.0	0.000E+00	0.000E+00	3.401E-08			
B	1.7	0.05	2000.	0.	131.	263.4	233.7	0.0	0.000E+00	0.000E+00	2.619E-06			
B	3.6	0.47	2000.	0.	131.	263.4	233.7	0.0	0.000E+00	0.000E+00	1.222E-06			
B	6.0	0.54	2000.	0.	131.	263.4	233.7	0.0	0.000E+00	0.000E+00	7.333E-07			
B	8.9	0.44	2000.	0.	131.	263.4	233.7	0.0	0.000E+00	0.000E+00	4.954E-07			
B	11.6	0.12	2000.	0.	131.	263.4	233.7	0.0	0.000E+00	0.000E+00	3.819E-07			
B	26.5	0.03	2000.	0.	131.	263.4	233.7	0.0	0.000E+00	0.000E+00	1.667E-07			
C	1.7	0.08	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	4.272E-06			
C	3.6	0.77	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.994E-06			
C	6.0	1.33	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.196E-06			
C	8.9	1.04	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.082E-07			
C	11.6	0.30	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	6.230E-07			
C	26.5	0.13	2000.	0.	131.	200.0	114.9	0.0	0.000E+00	0.000E+00	2.719E-07			
D	0.2	0.00	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05			
D	1.7	2.07	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06			
D	3.6	9.39	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06			
D	6.0	15.72	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07			
D	8.9	12.23	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07			
D	11.6	4.24	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07			
D	26.5	1.39	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07			
E	0.3	0.01	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06			
E	1.8	1.97	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06			
E	3.9	8.90	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07			
E	6.5	13.85	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07			
E	9.6	9.53	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07			
E	12.5	1.29	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07			
E	28.5	0.23	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08			
F	0.3	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06			
F	1.8	1.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07			

Calculation No. PM-1055 Revision 0
Attachment J
Page 606 of 1411

F	3.9	3.14	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07
F	6.5	3.52	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07
F	9.6	1.55	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07
F	12.5	0.16	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.003E-07
F	28.5	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.375E-08
G	1.8	0.43	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	1.17	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	1.14	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	0.31	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08
G	12.5	0.01	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	9.405E-09
G	28.5	0.00	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	4.104E-09

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 607 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

DIRECTION-INDEPENDENT (S.R.P 2.3.4) MODEL.

MINIMUM BOUNDARY DISTANCE = 2000.0 METERS.

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED:

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	4.272E-06	2.619E-06	2.224E-06	1.994E-06	1.262E-06	1.222E-06	1.196E-06
0.005	0.019	0.030	0.107	0.154	2.221	2.986	4.952	5.423	6.753
0.00467	0.01866	0.03032	0.10730	0.15395	2.22056	2.98563	4.95195	5.42312	6.75266
1.038E-06	8.082E-07	7.333E-07	6.875E-07	6.230E-07	6.226E-07	5.890E-07	5.344E-07	4.954E-07	4.207E-07
16.143	17.186	17.730	18.739	19.043	34.762	43.658	43.665	44.106	56.335
16.14340	17.18604	17.72952	18.73950	19.04273	34.76162	43.65786	43.66486	44.10571	56.33513
3.819E-07	3.534E-07	3.243E-07	3.208E-07	2.719E-07	2.494E-07	2.388E-07	1.925E-07	1.841E-07	1.667E-07
56.456	70.302	74.543	77.685	77.811	78.324	87.850	91.367	92.662	92.697
56.45642	70.30229	74.54282	77.68474	77.81069	78.32384	87.84987	91.36732	92.66187	92.69685
1.496E-07	1.415E-07	1.301E-07	1.011E-07	1.003E-07	8.032E-08	7.794E-08	6.449E-08	4.375E-08	3.401E-08
93.229	94.616	96.170	96.448	96.608	96.837	96.895	97.329	97.341	97.369
93.22867	94.61652	96.16998	96.44756	96.60850	96.83708	96.89539	97.32925	97.34091	97.36890
3.010E-08	1.806E-08	1.220E-08	9.405E-09	4.104E-09					
98.542	99.678	99.986	99.995	100.000					
98.54216	99.67810	99.98599	99.99532	99.99998					

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS

Calculation No. PM-1055 Revision 0

Attachment J

Page 608 of 1411

SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 2.983

3.127E-06	1.000	1.000
1.990E-06	3.000	3.000
1.676E-06	5.000	5.000
1.285E-06	10.000	10.000
1.075E-06	15.000	15.000
9.385E-07	20.000	20.000
8.372E-07	25.000	25.000
7.556E-07	30.000	30.000
6.871E-07	35.000	35.000
6.279E-07	40.000	40.000
5.760E-07	45.000	45.000
5.302E-07	50.000	50.000
4.881E-07	55.000	55.000
4.487E-07	60.000	60.000
4.113E-07	65.000	65.000
3.752E-07	70.000	70.000
3.398E-07	75.000	75.000
3.027E-07	80.000	80.000
2.627E-07	85.000	85.000

1.676E-06	5.0	5.00
-----------	-----	------

K= 17 FIVEXQ(K)= 1.676E-06 FIVEPR(K)= 5.000

FUMIGATION X/Q AT THE BOUNDARY: 2.20E-05

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	8.538E-01	5.200E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
1.416	3.074	6.718	16.125	61.163	96.935	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 609 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

FIVE PERCENT OVERALL SITE LIMIT

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	4.272E-06	2.619E-06	2.224E-06	1.994E-06	1.262E-06	1.222E-06	1.196E-06
0.005	0.019	0.030	0.107	0.154	2.221	2.986	4.952	5.423	6.753
0.00467	0.01866	0.03032	0.10730	0.15395	2.22056	2.98563	4.95195	5.42312	6.75266
1.038E-06	8.082E-07	7.333E-07	6.875E-07	6.230E-07	6.226E-07	5.890E-07	5.344E-07	4.954E-07	4.207E-07
16.143	17.186	17.730	18.739	19.043	34.762	43.658	43.665	44.106	56.335
16.14340	17.18604	17.72952	18.73950	19.04273	34.76162	43.65786	43.66486	44.10571	56.33513
3.819E-07	3.534E-07	3.243E-07	3.208E-07	2.719E-07	2.494E-07	2.388E-07	1.925E-07	1.841E-07	1.667E-07
56.456	70.302	74.543	77.685	77.811	78.324	87.850	91.367	92.662	92.697
56.45641	70.30227	74.54279	77.68472	77.81068	78.32382	87.84985	91.36729	92.66185	92.69684
1.496E-07	1.415E-07	1.301E-07	1.011E-07	1.003E-07	8.032E-08	7.794E-08	6.449E-08	4.375E-08	3.401E-08
93.229	94.616	96.170	96.447	96.608	96.837	96.895	97.329	97.341	97.369
93.22867	94.61652	96.16998	96.44753	96.60847	96.83707	96.89537	97.32921	97.34087	97.36887
3.010E-08	1.806E-08	1.220E-08	9.405E-09	4.104E-09					
98.542	99.678	99.986	99.995	100.000					
98.54212	99.67805	99.98595	99.99528	99.99995					

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS

Calculation No. PM-1055 Revision 0

SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

Attachment J

Page 610 of 1411

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 2.983

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
18	1	-11.07050	-15.03773	-1.01530
18	2	-13.12558	-14.49994	-0.72975
18	3	-13.77855	-14.45362	-0.68289
18	4	-14.34482	-14.44994	-0.65982
18	5	-14.95230	-14.39872	-0.72709
18	6	-15.24768	NUMXQ(K) = 6	
		3.127E-06	1.000	1.000
		1.990E-06	3.000	3.000
		1.676E-06	5.000	5.000
		1.285E-06	10.000	10.000
		1.075E-06	15.000	15.000
		9.385E-07	20.000	20.000
		8.372E-07	25.000	25.000
		7.556E-07	30.000	30.000
		6.871E-07	35.000	35.000
		6.279E-07	40.000	40.000
		5.760E-07	45.000	45.000
		5.302E-07	50.000	50.000
		4.881E-07	55.000	55.000
		4.487E-07	60.000	60.000
		4.113E-07	65.000	65.000
		3.752E-07	70.000	70.000
		3.398E-07	75.000	75.000
		3.027E-07	80.000	80.000
		2.627E-07	85.000	85.000
		1.676E-06	5.0	5.00

K= 18 FIVEXQ(K)= 1.676E-06 FIVEPR(K)= 5.000

K	HIGHPR	PR	GRNDVT(K)
1	-2.72009	0.32632	6.21119
2	-1.76790	3.85383	3.52599
3	-2.64555	0.40780	3.10868
4	-2.57624	0.49942	3.53145
5	-2.58231	0.49071	4.76778
6	-2.63180	0.42468	4.27759
7	-2.73321	0.31361	5.37148
8	-2.84958	0.21889	5.07527
9	-2.75366	0.29467	10.00153
10	-2.91622	0.17716	5.86355
11	-2.93020	0.16938	4.96796
12	-3.01062	0.13037	4.95848
13	-2.95332	0.15720	7.82046
14	-2.98643	0.14114	8.73919
15	-2.91085	0.18023	10.97840
16	-2.69545	0.35147	10.80101

K	HOURS (K)	TOTHR
1	28.58594	28.58594
2	337.59580	366.18180
3	35.72303	401.90480
4	43.74879	445.65360
5	42.98647	488.64000
6	37.20172	525.84170
7	27.47222	553.31400
8	19.17495	572.48890
9	25.81287	598.30180
10	15.51895	613.82070
11	14.83756	628.65830
12	11.42017	640.07840
13	13.77031	653.84880
14	12.36367	666.21240
15	15.78837	682.00080
16	30.78883	712.78960

K	FIVEXQ	SVANN	SLTIME	TIMINT	I	TIME	XQT
1	1.544E-06	9.038E-09	-0.6131	-12.9559	1	8.0	-14.23084
					2	16.0	-14.65581
					3	72.0	-15.57796
					4	624.0	-16.90195
2	1.360E-06	7.306E-09	-0.6233	-13.0758	1	8.0	-14.37201
					2	16.0	-14.80407
					3	72.0	-15.74161
					4	624.0	-17.08769
3	1.631E-06	8.496E-09	-0.6270	-12.8917	1	8.0	-14.19548
					2	16.0	-14.63008
					3	72.0	-15.57313
					4	624.0	-16.92711
4	1.833E-06	1.129E-08	-0.6070	-12.7891	1	8.0	-14.05126
					2	16.0	-14.47198
					3	72.0	-15.38492
					4	624.0	-16.69567
5	1.819E-06	1.226E-08	-0.5963	-12.8039	1	8.0	-14.04386
					2	16.0	-14.45719
					3	72.0	-15.35407
					4	624.0	-16.64178
6	1.698E-06	1.012E-08	-0.6109	-12.8626	1	8.0	-14.13297
					2	16.0	-14.55642
					3	72.0	-15.47530
					4	624.0	-16.79458
7	1.527E-06	8.306E-09	-0.6218	-12.9610	1	8.0	-14.25411
					2	16.0	-14.68514
					3	72.0	-15.62045

Calculation No. PM-1055 Revision 0
Attachment J
Page 612 of 1411

8	1.319E-06	5.546E-09	-0.6525	-13.0863	4	624.0	-16.96333
					1	8.0	-14.44320
					2	16.0	-14.89551
					3	72.0	-15.87700
					4	624.0	-17.28617
9	1.491E-06	1.081E-08	-0.5876	-13.0086	1	8.0	-14.23051
					2	16.0	-14.63781
					3	72.0	-15.52162
					4	624.0	-16.79055
10	1.223E-06	5.452E-09	-0.6456	-13.1668	1	8.0	-14.50921
					2	16.0	-14.95668
					3	72.0	-15.92765
					4	624.0	-17.32173
11	1.179E-06	4.629E-09	-0.6607	-13.1930	1	8.0	-14.56687
					2	16.0	-15.02483
					3	72.0	-16.01856
					4	624.0	-17.44532
12	1.065E-06	3.955E-09	-0.6674	-13.2896	1	8.0	-14.67742
					2	16.0	-15.14002
					3	72.0	-16.14384
					4	624.0	-17.58507
13	1.151E-06	7.138E-09	-0.6062	-13.2543	1	8.0	-14.51491
					2	16.0	-14.93513
					3	72.0	-15.84698
					4	624.0	-17.15616
14	1.022E-06	7.651E-09	-0.5837	-13.3895	1	8.0	-14.60328
					2	16.0	-15.00787
					3	72.0	-15.88580
					4	624.0	-17.14629
15	1.206E-06	8.855E-09	-0.5861	-13.2218	1	8.0	-14.44052
					2	16.0	-14.84676
					3	72.0	-15.72826
					4	624.0	-16.99388
16	1.598E-06	1.450E-08	-0.5608	-12.9584	1	8.0	-14.12442
					2	16.0	-14.51311
					3	72.0	-15.35653
					4	624.0	-16.56748
17	1.676E-06	1.450E-08	-0.5664	-12.9067	1	8.0	-14.08461
					2	16.0	-14.47724
					3	72.0	-15.32922
					4	624.0	-16.55245
18	1.676E-06	1.450E-08	-0.5664	-12.9067	1	8.0	-14.08461

2	16.0	-14.47724
3	72.0	-15.32922
4	624.0	-16.55245

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 614 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

 RELATIVE CONCENTRATION (X/Q) VALUES (SEC/CUBIC METER)
 VERSUS
 AVERAGING TIME

DOWNWIND DISTANCE								HOURS PER YEAR MAX		
SECTOR (METERS)		0-2 HOURS	0-8 HOURS	8-24 HOURS	1-4 DAYS	4-30 DAYS	ANNUAL AVERAGE	0-2 HR X/Q IS	EXCEEDED	DOWNWIND
								IN SECTOR		SECTOR
S	2000.	1.54E-06	6.60E-07	4.32E-07	1.72E-07	4.57E-08	9.04E-09	28.6		S
SSW	2000.	1.36E-06	5.73E-07	3.72E-07	1.46E-07	3.79E-08	7.31E-09	337.6		SSW
SW	2000.	1.63E-06	6.84E-07	4.43E-07	1.72E-07	4.45E-08	8.50E-09	35.7		SW
WSW	2000.	1.83E-06	7.90E-07	5.19E-07	2.08E-07	5.61E-08	1.13E-08	43.7		WSW
W	2000.	1.82E-06	7.96E-07	5.26E-07	2.15E-07	5.92E-08	1.23E-08	43.0		W
WNW	2000.	1.70E-06	7.28E-07	4.77E-07	1.90E-07	5.08E-08	1.01E-08	37.2		WNW
NW	2000.	1.53E-06	6.45E-07	4.19E-07	1.64E-07	4.29E-08	8.31E-09	27.5		NW
NNW	2000.	1.32E-06	5.34E-07	3.40E-07	1.27E-07	3.11E-08	5.55E-09	19.2		NNW
N	2000.	1.49E-06	6.60E-07	4.39E-07	1.82E-07	5.10E-08	1.08E-08	25.8		N
NNE	2000.	1.22E-06	5.00E-07	3.19E-07	1.21E-07	3.00E-08	5.45E-09	15.5		NNE
NE	2000.	1.18E-06	4.72E-07	2.98E-07	1.10E-07	2.65E-08	4.63E-09	14.8		NE
ENE	2000.	1.07E-06	4.22E-07	2.66E-07	9.75E-08	2.31E-08	3.95E-09	11.4		ENE
E	2000.	1.15E-06	4.97E-07	3.26E-07	1.31E-07	3.54E-08	7.14E-09	13.8		E
ESE	2000.	1.02E-06	4.55E-07	3.04E-07	1.26E-07	3.58E-08	7.65E-09	12.4		ESE
SE	2000.	1.21E-06	5.35E-07	3.57E-07	1.48E-07	4.17E-08	8.85E-09	15.8		SE
SSE	2000.	1.60E-06	7.34E-07	4.98E-07	2.14E-07	6.38E-08	1.45E-08	30.8		SSE
MAX X/Q		1.83E-06							TOTAL HOURS AROUND SITE:	712.8
SRP 2.3.4	2000.	1.68E-06	7.64E-07	5.16E-07	2.20E-07	6.48E-08	1.45E-08			
SITE LIMIT		1.68E-06	7.64E-07	5.16E-07	2.20E-07	6.48E-08	1.45E-08			

THE FIVE-PERCENT-FOR-THE-ENTIRE-SITE X/Q IS LIMITING.

X/Q VALUES (SEC/CUBIC METER) FOR FUMIGATION AT THE BOUNDARY:

DOWNWIND DISTANCE FUMIGATION

SECTOR	(METERS)	X/Q
S	2000.	2.20E-05
SSW	2000.	2.20E-05
SW	2000.	2.20E-05
WSW	2000.	2.20E-05
W	2000.	2.20E-05
WNW	2000.	2.20E-05
NW	2000.	2.20E-05
NNW	2000.	2.20E-05
N	2000.	2.20E-05
NNE	2000.	2.20E-05
NE	2000.	2.20E-05
ENE	2000.	2.20E-05
E	2000.	2.20E-05

Calculation No. PM-1055 Revision 0**Attachment J****Page 615 of 1411**

ESE	2000.	2.20E-05
SE	2000.	2.20E-05
SSE	2000.	2.20E-05

****NOTE**:** VALUES ON THIS PAGE ARE APPROXIMATIONS ONLY.
CHECK THE REASONABLENESS OF THE ENVELOPES
COMPUTED FOR THE 0-2 HOUR VALUES. FOR ANY
FAULTY ENVELOPES, ADJUST THE ABOVE VALUES.

PAVAN Input**Off Gas Stack to Control Room (Tower 2 320' wind and 316'-33' Delta T Stability Class; distances of 3000 m and 4000 m)**

1 1111

Peach Bottom

Stack Release

97.5 meters

10.1-96.3 meters

Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

```

7 1
2584. 54.3131.4 97.5
0 0 0 2 6 5 0
0. 0. 0. 0. 3. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0.
6. 9. 23. 39. 87. 44. 4. 2. 0. 2. 2. 0. 1. 0. 0. 1.
0. 9. 20. 29. 46. 44. 20. 2. 12. 7. 5. 7. 8. 9. 2. 8.
2. 4. 9. 18. 7. 3. 13. 0. 7. 3. 2. 3. 21. 9. 3. 15.
2. 2. 0. 1. 0. 1. 0. 0. 0. 0. 0. 2. 14. 2. 0. 1.
0. 0. 0. 0. 0. 1. 0. 0. 0. 0. 0. 2. 2. 5. 1. 1.
0. 2. 2. 9. 5. 0. 2. 0. 0. 0. 0. 0. 0. 0. 0. 0.
13. 23. 18. 25. 56. 29. 10. 3. 3. 4. 3. 1. 4. 3. 4. 3.
4. 15. 13. 15. 12. 25. 27. 8. 25. 14. 13. 8. 21. 9. 2. 22.
10. 3. 2. 1. 1. 2. 8. 8. 31. 9. 6. 19. 27. 20. 9. 33.
1. 2. 1. 0. 0. 1. 1. 1. 5. 2. 1. 2. 12. 14. 4. 5.
0. 0. 0. 0. 0. 0. 0. 0. 1. 0. 0. 1. 6. 7. 0. 0.
0. 5. 12. 15. 1. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0.
31. 22. 28. 37. 50. 65. 14. 12. 19. 5. 7. 3. 5. 5. 3. 22.
42. 19. 9. 17. 14. 26. 62. 22. 72. 37. 30. 26. 42. 26. 26. 100.
18. 8. 4. 3. 3. 4. 11. 10. 67. 24. 21. 31. 56. 59. 35. 93.
4. 1. 0. 0. 1. 2. 0. 1. 9. 0. 4. 4. 29. 30. 28. 17.
1. 4. 0. 0. 0. 0. 0. 0. 1. 0. 1. 1. 13. 27. 6. 0.
59. 58. 108. 119. 115. 86. 45. 35. 41. 23. 32. 15. 26. 38. 36. 50.
330. 211. 238. 336. 435. 304. 339. 243. 300. 191. 155. 128. 141. 97. 193. 385.
521. 349. 251. 278. 331. 308. 478. 466. 708. 425. 287. 211. 301. 355. 542. 928.
396. 154. 85. 67. 132. 140. 161. 118. 482. 166. 126. 190. 395. 674. 1039. 918.
73. 27. 13. 11. 32. 26. 14. 11. 99. 16. 16. 22. 225. 448. 543. 242.
15. 7. 12. 2. 8. 2. 7. 7. 29. 9. 3. 6. 90. 151. 184. 63.
60. 44. 36. 61. 60. 60. 61. 59. 70. 56. 59. 54. 54. 36. 39. 34.
235. 164. 150. 219. 283. 200. 345. 311. 435. 320. 281. 187. 173. 138. 170. 203.
367. 201. 156. 101. 161. 257. 349. 443. 891. 577. 354. 297. 395. 354. 519. 514.
156. 38. 26. 11. 58. 63. 98. 165. 516. 228. 216. 271. 536. 583. 651. 468.
23. 8. 8. 4. 12. 21. 16. 11. 64. 19. 18. 30. 78. 111. 89. 43.
7. 1. 1. 1. 20. 4. 12. 2. 6. 4. 2. 1. 9. 12. 6. 10.
26. 19. 22. 26. 31. 23. 28. 32. 23. 32. 32. 33. 30. 28. 26. 22.
99. 38. 34. 29. 34. 52. 81. 90. 134. 141. 156. 117. 85. 66. 94. 97.
81. 25. 13. 8. 13. 24. 48. 79. 130. 111. 157. 177. 198. 140. 178. 126.
4. 1. 1. 0. 0. 2. 7. 8. 44. 23. 39. 109. 168. 138. 90. 32.
1. 0. 0. 0. 0. 0. 0. 0. 0. 3. 0. 18. 24. 18. 0. 5.
0. 0. 0. 0. 4. 1. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0.
11. 14. 11. 10. 13. 5. 4. 9. 17. 9. 6. 18. 13. 14. 13. 19.
47. 19. 22. 19. 13. 6. 28. 10. 34. 31. 36. 34. 40. 35. 70. 59.
16. 5. 4. 2. 2. 2. 8. 6. 10. 21. 51. 70. 69. 44. 92. 85.
1. 0. 0. 0. 0. 0. 1. 1. 2. 1. 8. 26. 39. 39. 9. 5.

```

Attachment J

[illegible]

Off Gas Stack to Control Room (Tower 2 320' wind and 316'-33' Delta T Stability Class; distances of 3000 m and 4000 m)

10.1-96.3 meters

7 1

0 0 0 2 6 5 0

0.	0.	0.	0.	3.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
6.	9.	23.	39.	87.	44.	4.	2.	0.	2.	2.	0.	1.	0.	0.	1.
0.	9.	20.	29.	46.	44.	20.	2.	12.	7.	5.	7.	8.	9.	2.	8.
2.	4.	9.	18.	7.	3.	13.	0.	7.	3.	2.	3.	21.	9.	3.	15.
2.	2.	0.	1.	0.	1.	0.	0.	0.	0.	0.	2.	14.	2.	0.	1.
0.	0.	0.	0.	0.	1.	0.	0.	0.	0.	0.	2.	2.	5.	1.	1.
0.	2.	2.	9.	5.	0.	2.	0.	0.	0.	0.	0.	0.	0.	0.	0.
13.	23.	18.	25.	56.	29.	10.	3.	3.	4.	3.	1.	4.	3.	4.	3.
4.	15.	13.	15.	12.	25.	27.	8.	25.	14.	13.	8.	21.	9.	2.	22.
10.	3.	2.	1.	1.	2.	8.	8.	31.	9.	6.	19.	27.	20.	9.	33.
1.	2.	1.	0.	0.	1.	1.	1.	5.	2.	1.	2.	12.	14.	4.	5.
0.	0.	0.	0.	0.	0.	0.	0.	1.	0.	0.	1.	6.	7.	0.	0.
0.	5.	12.	15.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
31.	22.	28.	37.	50.	65.	14.	12.	19.	5.	7.	3.	5.	5.	3.	22.
42.	19.	9.	17.	14.	26.	62.	22.	72.	37.	30.	26.	42.	26.	26.	100.
18.	8.	4.	3.	3.	4.	11.	10.	67.	24.	21.	31.	56.	59.	35.	93.
4.	1.	0.	0.	1.	2.	0.	1.	9.	0.	4.	4.	29.	30.	28.	17.
1.	4.	0.	0.	0.	0.	0.	0.	1.	0.	1.	1.	13.	27.	6.	0.
59.	58.	108.	119.	115.	86.	45.	35.	41.	23.	32.	15.	26.	38.	36.	50.
330.	211.	238.	336.	435.	304.	339.	243.	300.	191.	155.	128.	141.	97.	193.	385.
521.	349.	251.	278.	331.	308.	478.	466.	708.	425.	287.	211.	301.	355.	542.	928.
396.	154.	85.	67.	132.	140.	161.	118.	482.	166.	126.	190.	395.	674.	1039.	918.
73.	27.	13.	11.	32.	26.	14.	11.	99.	16.	16.	22.	225.	448.	543.	242.
15.	7.	12.	2.	8.	2.	7.	7.	29.	9.	3.	6.	90.	151.	184.	63.
60.	44.	36.	61.	60.	60.	61.	59.	70.	56.	59.	54.	54.	36.	39.	34.
235.	164.	150.	219.	283.	200.	345.	311.	435.	320.	281.	187.	173.	138.	170.	203.
367.	201.	156.	101.	161.	257.	349.	443.	891.	577.	354.	297.	395.	354.	519.	514.
156.	38.	26.	11.	58.	63.	98.	165.	516.	228.	216.	271.	536.	583.	651.	468.
23.	8.	8.	4.	12.	21.	16.	11.	64.	19.	18.	30.	78.	111.	89.	43.
7.	1.	1.	1.	20.	4.	12.	2.	6.	4.	2.	1.	9.	12.	6.	10.
26.	19.	22.	26.	31.	23.	28.	32.	23.	32.	32.	33.	30.	28.	26.	22.
99.	38.	34.	29.	34.	52.	81.	90.	134.	141.	156.	117.	85.	66.	94.	97.
81.	25.	13.	8.	13.	24.	48.	79.	130.	111.	157.	177.	198.	140.	178.	126.
4.	1.	1.	0.	0.	2.	7.	8.	44.	23.	39.	109.	168.	138.	90.	32.
1.	0.	0.	0.	0.	0.	0.	0.	0.	3.	0.	18.	24.	18.	0.	5.
0.	0.	0.	0.	4.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
11.	14.	11.	10.	13.	5.	4.	9.	17.	9.						

Attachment J

[illegible]

PAVAN Output

Off Gas Stack to Control Room (distances of 3000 m and 4000 m)

Copyright (c) 1990 Ergo Computing, Inc. for Lahey

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

RUN DATE: 12/29/02

PRINTOUT OF INPUT CARDS

```
1      00010 01111 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 2      Peach Bottom
Stack Release
3      97.5 meters      10.1-96.3 meters
4
5      Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T      6      7 42872      1
7      0.500 2584.000      54.300 131.400 97.500
8      0.000 0.000 0.000 2.000 6.000 5.000 0.000
9      0.000 0.000 0.000 0.000 3.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
9      6.000 9.000 23.000 39.000 87.000 44.000 4.000 2.000 0.000 2.000 2.000 0.000 1.000 0.000 0.000 1.000
9      0.000 9.000 20.000 29.000 46.000 44.000 20.000 2.000 12.000 7.000 5.000 7.000 8.000 9.000 2.000 8.000
9      2.000 4.000 9.000 18.000 7.000 3.000 13.000 0.000 7.000 3.000 2.000 3.000 21.000 9.000 3.000 15.000
9      2.000 2.000 0.000 1.000 0.000 1.000 0.000 0.000 0.000 0.000 0.000 2.000 14.000 2.000 0.000 1.000
9      0.000 0.000 0.000 0.000 0.000 1.000 0.000 0.000 0.000 0.000 0.000 2.000 2.000 5.000 1.000 1.000
9      0.000 2.000 2.000 9.000 5.000 0.000 2.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
9      13.000 23.000 18.000 25.000 56.000 29.000 10.000 3.000 3.000 4.000 3.000 1.000 4.000 3.000 4.000 3.000
9      4.000 15.000 13.000 15.000 12.000 25.000 27.000 8.000 25.000 14.000 13.000 8.000 21.000 9.000 2.000 22.000
9      10.000 3.000 2.000 1.000 1.000 2.000 8.000 8.000 31.000 9.000 6.000 19.000 27.000 20.000 9.000 33.000
9      1.000 2.000 1.000 0.000 0.000 1.000 1.000 1.000 5.000 2.000 1.000 2.000 12.000 14.000 4.000 5.000
9      0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 1.000 0.000 0.000 1.000 6.000 7.000 0.000 0.000
9      0.000 5.000 12.000 15.000 1.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
9      31.000 22.000 28.000 37.000 50.000 65.000 14.000 12.000 19.000 5.000 7.000 3.000 5.000 5.000 3.000 22.000
9      42.000 19.000 9.000 17.000 14.000 26.000 62.000 22.000 72.000 37.000 30.000 26.000 42.000 26.000 26.000 100.000
9      18.000 8.000 4.000 3.000 3.000 4.000 11.000 10.000 67.000 24.000 21.000 31.000 56.000 59.000 35.000 93.000
9      4.000 1.000 0.000 0.000 1.000 2.000 0.000 1.000 9.000 0.000 4.000 4.000 29.000 30.000 28.000 17.000
9      1.000 4.000 0.000 0.000 0.000 0.000 0.000 0.000 1.000 0.000 1.000 1.000 13.000 27.000 6.000 0.000
9      59.000 58.000 108.000 119.000 115.000 86.000 45.000 35.000 41.000 23.000 32.000 15.000 26.000 38.000 36.000 50.000
9      330.000 211.000 238.000 336.000 435.000 304.000 339.000 243.000 300.000 191.000 155.000 128.000 141.000 97.000 193.000 385.000
9      521.000 349.000 251.000 278.000 331.000 308.000 478.000 466.000 708.000 425.000 287.000 211.000 301.000 355.000 542.000 928.000
9      396.000 154.000 85.000 67.000 132.000 140.000 161.000 118.000 482.000 166.000 126.000 190.000 395.000 674.000 *****918.000
9      73.000 27.000 13.000 11.000 32.000 26.000 14.000 11.000 99.000 16.000 16.000 22.000 225.000 448.000 543.000 242.000
9      15.000 7.000 12.000 2.000 8.000 2.000 7.000 7.000 29.000 9.000 3.000 6.000 90.000 151.000 184.000 63.000
9      60.000 44.000 36.000 61.000 60.000 60.000 61.000 59.000 70.000 56.000 59.000 54.000 54.000 36.000 39.000 34.000
9      235.000 164.000 150.000 219.000 283.000 200.000 345.000 311.000 435.000 320.000 281.000 187.000 173.000 138.000 170.000 203.000
9      367.000 201.000 156.000 101.000 161.000 257.000 349.000 443.000 891.000 577.000 354.000 297.000 395.000 354.000 519.000 514.000
9      156.000 38.000 26.000 11.000 58.000 63.000 98.000 165.000 516.000 228.000 216.000 271.000 536.000 583.000 651.000 468.000
9      23.000 8.000 8.000 4.000 12.000 21.000 16.000 11.000 64.000 19.000 18.000 30.000 78.000 111.000 89.000 43.000
9      7.000 1.000 1.000 1.000 20.000 4.000 12.000 2.000 6.000 4.000 2.000 1.000 9.000 12.000 6.000 10.000
9      26.000 19.000 22.000 26.000 31.000 23.000 28.000 32.000 23.000 32.000 32.000 33.000 30.000 28.000 26.000 22.000
9      99.000 38.000 34.000 29.000 34.000 52.000 81.000 90.000 134.000 141.000 156.000 117.000 85.000 66.000 94.000 97.000
9      81.000 25.000 13.000 8.000 13.000 24.000 48.000 79.000 130.000 111.000 157.000 177.000 198.000 140.000 178.000 126.000
9      4.000 1.000 1.000 0.000 0.000 2.000 7.000 8.000 44.000 23.000 39.000 109.000 168.000 138.000 90.000 32.000
9      1.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 3.000 0.000 18.000 24.000 18.000 0.000 5.000
```

Page 621 of 1411

[illegible]

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 622 of 1411

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION
ATMOSPHERIC STABILITY CLASS A

WIND SPEED (M/S)

TOWER RELEASE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
0.22 0.24	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.56 1.69	0.000	0.000	0.000	0.000	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.007
3.35 3.61	0.014	0.021	0.054	0.091	0.203	0.103	0.009	0.005	0.000	0.005	0.005	0.000	0.002	0.000	0.000	0.002	0.513
5.59 6.02	0.000	0.021	0.047	0.068	0.107	0.103	0.047	0.005	0.028	0.016	0.012	0.016	0.019	0.021	0.005	0.019	0.532
8.27 8.91	0.005	0.009	0.021	0.042	0.016	0.007	0.030	0.000	0.016	0.007	0.005	0.007	0.049	0.021	0.007	0.035	0.278
10.73 11.56	0.005	0.005	0.000	0.002	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.005	0.033	0.005	0.000	0.002	0.058
24.59 26.49	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.005	0.005	0.012	0.002	0.002	0.028
TOTAL	0.02	0.06	0.12	0.20	0.33	0.22	0.09	0.01	0.04	0.03	0.02	0.03	0.11	0.06	0.01	0.06	1.42

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION
ATMOSPHERIC STABILITY CLASS B

WIND SPEED (M/S)

TOWER RELEASE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
0.22 0.24	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.56 1.69	0.000	0.005	0.005	0.021	0.012	0.000	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.047
3.35 3.61	0.030	0.054	0.042	0.058	0.131	0.068	0.023	0.007	0.007	0.009	0.007	0.002	0.009	0.007	0.009	0.007	0.471
5.59 6.02	0.009	0.035	0.030	0.035	0.028	0.058	0.063	0.019	0.058	0.033	0.030	0.019	0.049	0.021	0.005	0.051	0.543
8.27 8.91	0.023	0.007	0.005	0.002	0.002	0.005	0.019	0.019	0.072	0.021	0.014	0.044	0.063	0.047	0.021	0.077	0.441
10.73 11.56	0.002	0.005	0.002	0.000	0.000	0.002	0.002	0.002	0.012	0.005	0.002	0.005	0.028	0.033	0.009	0.012	0.121
24.59 26.49	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.002	0.014	0.016	0.000	0.000	0.035
TOTAL	0.07	0.10	0.08	0.12	0.17	0.13	0.11	0.05	0.15	0.07	0.05	0.07	0.16	0.12	0.04	0.15	1.66

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION
ATMOSPHERIC STABILITY CLASS C

WIND SPEED (M/S)

TOWER RELEASE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
0.22 0.24	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.56 1.69	0.000	0.012	0.028	0.035	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.077
3.35 3.61	0.072	0.051	0.065	0.086	0.117	0.152	0.033	0.028	0.044	0.012	0.016	0.007	0.012	0.012	0.007	0.051	0.765
5.59 6.02	0.098	0.044	0.021	0.040	0.033	0.061	0.145	0.051	0.168	0.086	0.070	0.061	0.098	0.061	0.061	0.233	1.330
8.27 8.91	0.042	0.019	0.009	0.007	0.007	0.009	0.026	0.023	0.156	0.056	0.049	0.072	0.131	0.138	0.082	0.217	1.043
10.73 11.56	0.009	0.002	0.000	0.000	0.002	0.005	0.000	0.002	0.021	0.000	0.009	0.009	0.068	0.070	0.065	0.040	0.303
24.59 26.49	0.002	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.002	0.002	0.030	0.063	0.014	0.000	0.126
TOTAL	0.22	0.14	0.12	0.17	0.16	0.23	0.20	0.10	0.39	0.15	0.15	0.15	0.34	0.34	0.23	0.54	3.64

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION
ATMOSPHERIC STABILITY CLASS D

WIND SPEED (M/S)

TOWER RELEASE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
0.22 0.24	0.000	0.000	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.005
1.56 1.69	0.138	0.135	0.252	0.278	0.268	0.201	0.105	0.082	0.096	0.054	0.075	0.035	0.061	0.089	0.084	0.117	2.067

Calculation No. PM-1055 Revision 0
Attachment J
Page 623 of 1411

3.35	3.61	0.770	0.492	0.555	0.784	1.015	0.709	0.791	0.567	0.700	0.446	0.362	0.299	0.329	0.226	0.450	0.898	9.391
5.59	6.02	1.215	0.814	0.585	0.648	0.772	0.718	1.115	1.087	1.651	0.991	0.669	0.492	0.702	0.828	1.264	2.165	15.719
8.27	8.91	0.924	0.359	0.198	0.156	0.308	0.327	0.376	0.275	1.124	0.387	0.294	0.443	0.921	1.572	2.423	2.141	12.229
10.73	11.56	0.170	0.063	0.030	0.026	0.075	0.061	0.033	0.026	0.231	0.037	0.037	0.051	0.525	1.045	1.267	0.564	4.241
24.59	26.49	0.035	0.016	0.028	0.005	0.019	0.005	0.016	0.016	0.068	0.021	0.007	0.014	0.210	0.352	0.429	0.147	1.388
TOTAL		3.25	1.88	1.65	1.90	2.46	2.02	2.44	2.05	3.87	1.94	1.44	1.33	2.75	4.11	5.92	6.03	45.04

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION
WIND SPEED (M/S)
ATMOSPHERIC STABILITY CLASS E

TOWER RELEASE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
0.22 0.26	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.014
1.56 1.82	0.140	0.103	0.084	0.142	0.140	0.140	0.142	0.138	0.163	0.131	0.138	0.126	0.126	0.084	0.091	0.079	1.966
3.35 3.89	0.548	0.383	0.350	0.511	0.660	0.467	0.805	0.725	1.015	0.746	0.655	0.436	0.404	0.322	0.397	0.474	8.896
5.59 6.49	0.856	0.469	0.364	0.236	0.376	0.599	0.814	1.033	2.078	1.346	0.826	0.693	0.921	0.826	1.211	1.199	13.846
8.27 9.60	0.364	0.089	0.061	0.026	0.135	0.147	0.229	0.385	1.204	0.532	0.504	0.632	1.250	1.360	1.518	1.092	9.526
10.73 12.46	0.054	0.019	0.019	0.009	0.028	0.049	0.037	0.026	0.149	0.044	0.042	0.070	0.182	0.259	0.208	0.100	1.295
24.59 28.54	0.016	0.002	0.002	0.002	0.047	0.009	0.028	0.005	0.014	0.009	0.005	0.002	0.021	0.028	0.014	0.023	0.229
TOTAL	1.98	1.06	0.88	0.93	1.39	1.41	2.06	2.31	4.62	2.81	2.17	1.96	2.90	2.88	3.44	2.97	35.77

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION
WIND SPEED (M/S)
ATMOSPHERIC STABILITY CLASS F

TOWER RELEASE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
0.22 0.26	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.012
1.56 1.82	0.061	0.044	0.051	0.061	0.072	0.054	0.065	0.075	0.054	0.075	0.075	0.077	0.070	0.065	0.061	0.051	1.010
3.35 3.89	0.231	0.089	0.079	0.068	0.079	0.121	0.189	0.210	0.313	0.329	0.364	0.273	0.198	0.154	0.219	0.226	3.142
5.59 6.49	0.189	0.058	0.030	0.019	0.030	0.056	0.112	0.184	0.303	0.259	0.366	0.413	0.462	0.327	0.415	0.294	3.517
8.27 9.60	0.009	0.002	0.002	0.000	0.000	0.005	0.016	0.019	0.103	0.054	0.091	0.254	0.392	0.322	0.210	0.075	1.553
10.73 12.46	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.007	0.000	0.042	0.056	0.042	0.000	0.012	0.161
24.59 28.54	0.000	0.000	0.000	0.000	0.009	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.012
TOTAL	0.49	0.19	0.16	0.15	0.19	0.24	0.38	0.49	0.77	0.72	0.90	1.06	1.18	0.91	0.91	0.66	9.41

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION
WIND SPEED (M/S)
ATMOSPHERIC STABILITY CLASS G

TOWER RELEASE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
0.22 0.26	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.56 1.82	0.026	0.033	0.026	0.023	0.030	0.012	0.009	0.021	0.040	0.021	0.014	0.042	0.030	0.033	0.030	0.044	0.434
3.35 3.89	0.110	0.044	0.051	0.044	0.030	0.014	0.065	0.023	0.079	0.072	0.084	0.079	0.093	0.082	0.163	0.138	1.173
5.59 6.49	0.037	0.012	0.009	0.005	0.005	0.005	0.019	0.014	0.023	0.049	0.119	0.163	0.161	0.103	0.215	0.198	1.136
8.27 9.60	0.002	0.000	0.000	0.000	0.000	0.000	0.002	0.002	0.005	0.002	0.019	0.061	0.091	0.091	0.021	0.012	0.308
10.73 12.46	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.002	0.005	0.000	0.000	0.009
24.59 28.54	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.002	0.005
TOTAL	0.17	0.09	0.09	0.07	0.07	0.03	0.10	0.06	0.15	0.14	0.24	0.35	0.38	0.31	0.43	0.39	3.06

WIND MEASURED AT 97.5 METERS.

WIND SPEED CORRECTED TO THE RELEASE HEIGHT OF 131.4 METERS.

OVERALL WIND DIRECTION FREQUENCY

WIND DIRECTION:	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
FREQUENCY:	6.2	3.5	3.1	3.5	4.8	4.3	5.4	5.1	10.0	5.9	5.0	5.0	7.8	8.7	11.0	10.8

OVERALL WIND SPEED FREQUENCY AS MEASURED ON THE TOWER:

MAX.WIND SPEED (M/S):	0.224	1.565	3.353	5.588	8.270	10.729	24.587
WIND SPEED FREQUENCY:	0.03	5.61	24.35	36.62	25.38	6.19	1.82

BUILDING AND RELEASE CHARACTERISTICS:

RELEASE HEIGHT:	131.40 METERS
MIXING VOLUME COEFFICIENT:	0.50
BUILDING CROSS-SECTIONAL AREA:	2584.00 SQUARE METERS

BOUNDARY DISTANCES (METERS) FROM THE SOURCE FOR EACH DOWNWIND SECTOR:

DOWNWIND SECTOR	S	SSW	SW	WSW	W	WNW	NW	NNW	N	NNE	NE	ENE	E	ESE	SE	SSE
BOUNDARY 1	3000.	3000.	3000.	3000.	3000.	3000.	3000.	3000.	3000.	3000.	3000.	3000.	3000.	3000.	3000.	3000.
BOUNDARY 2	4000.	4000.	4000.	4000.	4000.	4000.	4000.	4000.	4000.	4000.	4000.	4000.	4000.	4000.	4000.	4000.

DISTANCES AND TERRAIN HEIGHTS (IN METERS) AS A FUNCTION OF THE DOWNWIND SECTOR:

SECTOR	S	SSW	SW	WSW	W	WNW	NW	NNW	N	NNE	NE	ENE	E	ESE	SE	SSE
DISTANCE	500.	500.	500.	500.	500.	500.	500.	500.	500.	500.	500.	500.	500.	500.	500.	500.
ELEVATION	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

THE CONVERSION FACTOR APPLIED TO THE WIND SPEED CLASSES IS 0.447

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 625 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

WINDSPEEDS ADJUSTED TO 131.4 METERS.

PERCENT OF THE TIME A GIVEN WINDSPEED IS LOWER:

WINDSPEED (METER/SEC)	CUMULATIVE FREQUENCY (PERCENT)
--------------------------	-----------------------------------

0.24	0.00
0.26	0.03
1.69	2.23
1.82	5.64
3.61	16.78
3.89	29.99
6.02	48.11
6.49	66.61
8.91	80.60
9.60	91.99
11.56	96.71
12.46	98.18
26.49	99.76
28.54	100.00

WINDSPEED (INTERPOLATED) (METER/SEC)	CUMULATIVE FREQUENCY (PERCENT)
--	-----------------------------------

0.26	0.03
1.77	5.64
3.76	29.99
6.26	66.61
9.22	91.99
11.77	98.18
26.77	100.00

LOG-NORMAL INTERPOLATION PERCENTILES

WINDSPEED (METER/SEC)	CUMULATIVE FREQUENCY (PERCENT)
--------------------------	-----------------------------------

0.81	1.00
1.30	3.00
1.66	5.00
2.19	10.00
2.61	15.00
3.00	20.00

3.38	25.00
3.76	30.00
4.05	35.00
4.35	40.00
4.66	45.00
4.98	50.00
5.32	55.00
5.70	60.00
6.11	65.00
6.50	70.00
6.90	75.00
7.37	80.00
8.11	85.00
8.78	90.00

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 627 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE S SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN HT	EFF PLUME HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS			CA=1292.SQ.METERS								
A	3.6	0.23	3000.	0.	131.	505.2	1000.0	0.0	0.000E+00	0.000E+00	1.729E-07
A	8.9	0.08	3000.	0.	131.	505.2	1000.0	0.0	0.000E+00	0.000E+00	7.011E-08
A	11.6	0.08	3000.	0.	131.	505.2	1000.0	0.0	0.000E+00	0.000E+00	5.404E-08
B	3.6	0.49	3000.	0.	131.	379.9	363.6	0.0	0.000E+00	0.000E+00	5.975E-07
B	6.0	0.15	3000.	0.	131.	379.9	363.6	0.0	0.000E+00	0.000E+00	3.585E-07
B	8.9	0.38	3000.	0.	131.	379.9	363.6	0.0	0.000E+00	0.000E+00	2.422E-07
B	11.6	0.04	3000.	0.	131.	379.9	363.6	0.0	0.000E+00	0.000E+00	1.867E-07
C	3.6	1.16	3000.	0.	131.	288.5	166.2	0.0	0.000E+00	0.000E+00	1.344E-06
C	6.0	1.58	3000.	0.	131.	288.5	166.2	0.0	0.000E+00	0.000E+00	8.066E-07
C	8.9	0.68	3000.	0.	131.	288.5	166.2	0.0	0.000E+00	0.000E+00	5.450E-07
C	11.6	0.15	3000.	0.	131.	288.5	166.2	0.0	0.000E+00	0.000E+00	4.201E-07
C	26.5	0.04	3000.	0.	131.	288.5	166.2	0.0	0.000E+00	0.000E+00	1.833E-07
D	0.2	0.01	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05
D	1.7	2.22	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06
D	3.6	12.39	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06
D	6.0	19.57	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07
D	8.9	14.87	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07
D	11.6	2.74	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07
D	26.5	0.56	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07
E	0.3	0.02	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06
E	1.8	2.25	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06
E	3.9	8.83	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07
E	6.5	13.78	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07
E	9.6	5.86	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07
E	12.5	0.86	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07
E	28.5	0.26	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08
F	0.3	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06
F	1.8	0.98	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07
F	3.9	3.72	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07
F	6.5	3.04	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07
F	9.6	0.15	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07
F	12.5	0.04	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.003E-07
G	1.8	0.41	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08

Calculation No. PM-1055 Revision 0**Attachment J****Page 628 of 1411**

G	3.9	1.77	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	0.60	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	0.04	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 629 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

S SECTOR BOUNDARY DISTANCE = 3000.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED:

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.224E-06	1.344E-06	1.262E-06	1.038E-06	8.066E-07	6.875E-07	6.226E-07
0.005	0.021	0.032	2.248	3.412	5.665	18.058	19.635	20.612	40.177
0.00031	0.00131	0.00201	0.13963	0.21193	0.35189	1.12162	1.21958	1.28023	2.49548
5.975E-07	5.890E-07	5.450E-07	4.207E-07	4.201E-07	3.585E-07	3.534E-07	3.243E-07	3.208E-07	2.422E-07
40.665	49.490	50.166	65.038	65.188	65.338	79.120	81.862	85.579	85.955
2.52580	3.07394	3.11593	4.03961	4.04894	4.05827	4.91430	5.08458	5.31550	5.33882
2.388E-07	1.925E-07	1.867E-07	1.841E-07	1.833E-07	1.729E-07	1.415E-07	1.301E-07	1.003E-07	8.032E-08
91.813	94.855	94.893	95.756	95.794	96.019	96.583	96.733	96.770	97.033
5.70270	5.89163	5.89396	5.94761	5.94994	5.96394	5.99893	6.00826	6.01059	6.02692
7.011E-08	6.449E-08	5.404E-08	3.010E-08	1.806E-08	1.220E-08				
97.108	97.521	97.597	99.362	99.962	100.000				
6.03158	6.05724	6.06190	6.17153	6.20885	6.21119				

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 1.120
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 3.071

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 4.911
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 5.312
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(6)= 5.699

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
1	1	-11.07050	-16.54465	-1.21139
1	2	-13.77855	-16.90969	-1.37126
1	3	-14.34482	-18.75052	-2.35542
1	4	-14.85564	-19.03634	-2.52827
1	5	-14.95230	-28.66915	-8.49156
1	6	-15.24768	NUMXQ(K)= 6	
		3.263E-06	0.062	1.000
		2.192E-06	0.186	3.000
		1.797E-06	0.311	5.000
		1.350E-06	0.621	10.000
		1.129E-06	0.932	15.000
		9.834E-07	1.242	20.000
		8.723E-07	1.553	25.000
		7.886E-07	1.863	30.000
		7.226E-07	2.174	35.000
		6.688E-07	2.484	40.000
		6.237E-07	2.795	45.000
		5.827E-07	3.106	50.000
		5.271E-07	3.416	55.000
		4.802E-07	3.727	60.000
		4.401E-07	4.037	65.000
		4.056E-07	4.348	70.000
		3.755E-07	4.658	75.000
		3.487E-07	4.969	80.000
		3.236E-07	5.280	85.000
		2.598E-07	5.590	90.000
		1.479E-06	0.5	8.05

ANNUAL AVERAGE = 1.43E-08

K= 1 FIVEXQ(K)= 1.479E-06 FIVEPR(K)= 8.050

FUMIGATION X/Q AT THE BOUNDARY: 1.52E-05

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	9.368E-01	7.317E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
0.376	1.427	5.032	12.967	65.322	97.183	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 631 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE SSW SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	3.6	0.60	3000.	0.	131.	505.2	1000.0	0.0	0.000E+00	0.000E+00	1.729E-07			
A	6.0	0.60	3000.	0.	131.	505.2	1000.0	0.0	0.000E+00	0.000E+00	1.038E-07			
A	8.9	0.26	3000.	0.	131.	505.2	1000.0	0.0	0.000E+00	0.000E+00	7.011E-08			
A	11.6	0.13	3000.	0.	131.	505.2	1000.0	0.0	0.000E+00	0.000E+00	5.404E-08			
B	1.7	0.13	3000.	0.	131.	379.9	363.6	0.0	0.000E+00	0.000E+00	1.280E-06			
B	3.6	1.52	3000.	0.	131.	379.9	363.6	0.0	0.000E+00	0.000E+00	5.975E-07			
B	6.0	0.99	3000.	0.	131.	379.9	363.6	0.0	0.000E+00	0.000E+00	3.585E-07			
B	8.9	0.20	3000.	0.	131.	379.9	363.6	0.0	0.000E+00	0.000E+00	2.422E-07			
B	11.6	0.13	3000.	0.	131.	379.9	363.6	0.0	0.000E+00	0.000E+00	1.867E-07			
C	1.7	0.33	3000.	0.	131.	288.5	166.2	0.0	0.000E+00	0.000E+00	2.881E-06			
C	3.6	1.46	3000.	0.	131.	288.5	166.2	0.0	0.000E+00	0.000E+00	1.344E-06			
C	6.0	1.26	3000.	0.	131.	288.5	166.2	0.0	0.000E+00	0.000E+00	8.066E-07			
C	8.9	0.53	3000.	0.	131.	288.5	166.2	0.0	0.000E+00	0.000E+00	5.450E-07			
C	11.6	0.07	3000.	0.	131.	288.5	166.2	0.0	0.000E+00	0.000E+00	4.201E-07			
C	26.5	0.26	3000.	0.	131.	288.5	166.2	0.0	0.000E+00	0.000E+00	1.833E-07			
D	0.2	0.01	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05			
D	1.7	3.84	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06			
D	3.6	13.96	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06			
D	6.0	23.09	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07			
D	8.9	10.19	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07			
D	11.6	1.79	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07			
D	26.5	0.46	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07			
E	0.3	0.02	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06			
E	1.8	2.91	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06			
E	3.9	10.85	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07			
E	6.5	13.30	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07			
E	9.6	2.51	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07			
E	12.5	0.53	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07			
E	28.5	0.07	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08			
F	0.3	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06			
F	1.8	1.26	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07			
F	3.9	2.51	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07			
F	6.5	1.65	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07			
F	9.6	0.07	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07			

G	1.8	0.93	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	1.26	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	0.33	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 633 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

SSW SECTOR BOUNDARY DISTANCE = 3000.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.881E-06	2.224E-06	1.344E-06	1.280E-06	1.262E-06	1.038E-06	8.066E-07
0.009	0.029	0.044	0.375	4.211	5.667	5.799	8.710	22.668	23.925
0.00031	0.00104	0.00155	0.01321	0.14850	0.19981	0.20448	0.30711	0.79927	0.84359
6.875E-07	6.226E-07	5.975E-07	5.890E-07	5.450E-07	4.207E-07	4.201E-07	3.585E-07	3.534E-07	3.243E-07
25.182	48.269	49.790	60.639	61.169	71.356	71.422	72.414	85.711	87.497
0.88791	1.70196	1.75561	2.13814	2.15680	2.51601	2.51834	2.55333	3.02217	3.08514
3.208E-07	2.422E-07	2.388E-07	1.925E-07	1.867E-07	1.841E-07	1.833E-07	1.729E-07	1.415E-07	1.301E-07
90.011	90.209	92.723	94.377	94.509	95.039	95.303	95.899	96.362	96.428
3.17378	3.18078	3.26941	3.32773	3.33239	3.35105	3.36038	3.38138	3.39770	3.40004
1.038E-07	8.032E-08	7.011E-08	6.449E-08	5.404E-08	3.010E-08	1.806E-08			
97.023	97.089	97.354	98.280	98.412	99.669	100.000			
3.42103	3.42336	3.43269	3.46535	3.47001	3.51433	3.52599			

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.148

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 0.798

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 2.136
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 3.019
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(6)= 3.171

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
2	1	-11.07050	-16.74321	-1.25433
2	2	-13.01641	-17.04942	-1.35739
2	3	-13.77855	-17.33920	-1.47764
2	4	-14.34482	-21.31597	-3.44007
2	5	-14.85564	-23.21877	-4.45330
2	6	-14.95230	NUMXQ(K)= 6	
		3.750E-06	0.035	1.000
		2.529E-06	0.106	3.000
		2.069E-06	0.176	5.000
		1.528E-06	0.353	10.000
		1.267E-06	0.529	15.000
		1.104E-06	0.705	20.000
		9.840E-07	0.881	25.000
		8.898E-07	1.058	30.000
		8.157E-07	1.234	35.000
		7.554E-07	1.410	40.000
		7.051E-07	1.587	45.000
		6.623E-07	1.763	50.000
		6.253E-07	1.939	55.000
		5.929E-07	2.116	60.000
		5.328E-07	2.292	65.000
		4.782E-07	2.468	70.000
		4.319E-07	2.644	75.000
		3.922E-07	2.821	80.000
		3.579E-07	2.997	85.000
		3.209E-07	3.173	90.000
		1.301E-06	0.5	14.18

ANNUAL AVERAGE = 1.02E-08

K= 2 FIVEXQ(K)= 1.301E-06 FIVEPR(K)=14.180

FUMIGATION X/Q AT THE BOUNDARY: 1.52E-05

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	9.368E-01	7.317E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
1.588	4.565	8.467	13.973	67.300	97.486	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 635 of 1411

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE SW SECTOR.

STABILITY CLASS	WINDSPEED METER/SEC	FREQUENCY PERCENT	DISTANCE METERS	TERRAIN METERS	HT METERS	EFF PLUME METERS	SIGMA-Y METERS	SIGMA-Z METERS	MEANDER-SY METERS	** CHI/Q VALUES (SEC/CUBIC METER)	MEANDER	BLDG WAKE	USED
AT 131.4 METERS										CA=1292.SQ.METERS			
A	3.6	1.73	3000.	0.	131.	131.	505.2	1000.0	0.0	0.000E+00	0.000E+00	1.729E-07	
A	6.0	1.50	3000.	0.	131.	131.	505.2	1000.0	0.0	0.000E+00	0.000E+00	1.038E-07	
A	8.9	0.68	3000.	0.	131.	131.	505.2	1000.0	0.0	0.000E+00	0.000E+00	7.011E-08	
B	1.7	0.15	3000.	0.	131.	131.	379.9	363.6	0.0	0.000E+00	0.000E+00	1.280E-06	
B	3.6	1.35	3000.	0.	131.	131.	379.9	363.6	0.0	0.000E+00	0.000E+00	5.975E-07	
B	6.0	0.98	3000.	0.	131.	131.	379.9	363.6	0.0	0.000E+00	0.000E+00	3.585E-07	
B	8.9	0.15	3000.	0.	131.	131.	379.9	363.6	0.0	0.000E+00	0.000E+00	2.422E-07	
B	11.6	0.08	3000.	0.	131.	131.	379.9	363.6	0.0	0.000E+00	0.000E+00	1.867E-07	
C	1.7	0.90	3000.	0.	131.	131.	288.5	166.2	0.0	0.000E+00	0.000E+00	2.881E-06	
C	3.6	2.10	3000.	0.	131.	131.	288.5	166.2	0.0	0.000E+00	0.000E+00	1.344E-06	
C	6.0	0.68	3000.	0.	131.	131.	288.5	166.2	0.0	0.000E+00	0.000E+00	8.066E-07	
C	8.9	0.30	3000.	0.	131.	131.	288.5	166.2	0.0	0.000E+00	0.000E+00	5.450E-07	
D	0.2	0.02	4000.	0.	131.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05	
D	1.7	8.10	4000.	0.	131.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06	
D	3.6	17.86	4000.	0.	131.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06	
D	6.0	18.83	4000.	0.	131.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07	
D	8.9	6.38	4000.	0.	131.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07	
D	11.6	0.98	4000.	0.	131.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07	
D	26.5	0.90	4000.	0.	131.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07	
E	0.3	0.02	9000.	0.	131.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06	
E	1.8	2.70	9000.	0.	131.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06	
E	3.9	11.25	9000.	0.	131.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07	
E	6.5	11.71	9000.	0.	131.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07	
E	9.6	1.95	9000.	0.	131.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07	
E	12.5	0.60	9000.	0.	131.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07	
E	28.5	0.08	9000.	0.	131.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08	
F	0.3	0.02	90000.	0.	131.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06	
F	1.8	1.65	90000.	0.	131.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07	
F	3.9	2.55	90000.	0.	131.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07	
F	6.5	0.98	90000.	0.	131.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07	
F	9.6	0.08	90000.	0.	131.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07	
G	1.8	0.83	90000.	0.	131.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08	
G	3.9	1.65	90000.	0.	131.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08	

G	6.5	0.30	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
---	-----	------	--------	----	------	--------	------	-----	-----------	-----------	-----------

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 637 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

SW SECTOR BOUNDARY DISTANCE = 3000.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.881E-06	2.224E-06	1.344E-06	1.280E-06	1.262E-06	1.038E-06	8.066E-07
0.018	0.038	0.057	0.957	9.060	11.161	11.311	14.013	31.870	32.546
0.00057	0.00117	0.00176	0.02975	0.28166	0.34697	0.35164	0.43561	0.99075	1.01174
6.875E-07	6.226E-07	5.975E-07	5.890E-07	5.450E-07	4.207E-07	3.585E-07	3.534E-07	3.243E-07	3.208E-07
34.196	53.030	54.380	65.635	65.935	72.313	73.288	84.993	85.969	88.520
1.06306	1.64852	1.69051	2.04039	2.04972	2.24798	2.27830	2.64218	2.67250	2.75181
2.422E-07	2.388E-07	1.925E-07	1.867E-07	1.841E-07	1.729E-07	1.415E-07	1.301E-07	1.038E-07	8.032E-08
88.670	90.621	91.596	91.671	92.272	93.997	94.898	94.973	96.473	96.549
2.75647	2.81712	2.84744	2.84977	2.86843	2.92208	2.95007	2.95240	2.99905	3.00139
7.011E-08	6.449E-08	3.010E-08	1.806E-08						
97.224	98.049	99.700	100.000						
3.02238	3.04804	3.09935	3.10868						

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (2) = 0.281

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (3) = 0.990

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (4)= 2.038
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (5)= 2.640
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (6)= 2.749

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
3	1	-11.07050	-16.34133	-1.20086
3	2	-13.01641	-17.82872	-1.73807
3	3	-13.77855	-18.41909	-1.99142
3	4	-14.34482	-23.90730	-4.67393
3	5	-14.85564	-25.48603	-5.48913
3	6	-14.95230	NUMXQ(K)= 6	
		4.873E-06	0.031	1.000
		3.354E-06	0.093	3.000
		2.788E-06	0.155	5.000
		2.102E-06	0.311	10.000
		1.659E-06	0.466	15.000
		1.394E-06	0.622	20.000
		1.213E-06	0.777	25.000
		1.079E-06	0.933	30.000
		9.672E-07	1.088	35.000
		8.736E-07	1.243	40.000
		7.974E-07	1.399	45.000
		7.340E-07	1.554	50.000
		6.802E-07	1.710	55.000
		6.340E-07	1.865	60.000
		5.938E-07	2.021	65.000
		5.196E-07	2.176	70.000
		4.537E-07	2.332	75.000
		3.991E-07	2.487	80.000
		3.533E-07	2.642	85.000
		1.591E-06	0.5	16.08

ANNUAL AVERAGE = 1.16E-08

K= 3 FIVEXQ(K)= 1.591E-06 FIVEPR(K)=16.084

FUMIGATION X/Q AT THE BOUNDARY: 1.52E-05

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	9.368E-01	7.317E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
3.902	6.603	10.580	15.851	68.917	97.224	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 639 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE WSW SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	3.6	2.58	3000.	0.	131.	505.2	1000.0	0.0	0.000E+00	0.000E+00	1.729E-07			
A	6.0	1.92	3000.	0.	131.	505.2	1000.0	0.0	0.000E+00	0.000E+00	1.038E-07			
A	8.9	1.19	3000.	0.	131.	505.2	1000.0	0.0	0.000E+00	0.000E+00	7.011E-08			
A	11.6	0.07	3000.	0.	131.	505.2	1000.0	0.0	0.000E+00	0.000E+00	5.404E-08			
B	1.7	0.59	3000.	0.	131.	379.9	363.6	0.0	0.000E+00	0.000E+00	1.280E-06			
B	3.6	1.65	3000.	0.	131.	379.9	363.6	0.0	0.000E+00	0.000E+00	5.975E-07			
B	6.0	0.99	3000.	0.	131.	379.9	363.6	0.0	0.000E+00	0.000E+00	3.585E-07			
B	8.9	0.07	3000.	0.	131.	379.9	363.6	0.0	0.000E+00	0.000E+00	2.422E-07			
C	1.7	0.99	3000.	0.	131.	288.5	166.2	0.0	0.000E+00	0.000E+00	2.881E-06			
C	3.6	2.44	3000.	0.	131.	288.5	166.2	0.0	0.000E+00	0.000E+00	1.344E-06			
C	6.0	1.12	3000.	0.	131.	288.5	166.2	0.0	0.000E+00	0.000E+00	8.066E-07			
C	8.9	0.20	3000.	0.	131.	288.5	166.2	0.0	0.000E+00	0.000E+00	5.450E-07			
D	0.2	0.02	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05			
D	1.7	7.86	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06			
D	3.6	22.19	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06			
D	6.0	18.36	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07			
D	8.9	4.43	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07			
D	11.6	0.73	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07			
D	26.5	0.13	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07			
E	0.3	0.03	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06			
E	1.8	4.03	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06			
E	3.9	14.46	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07			
E	6.5	6.67	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07			
E	9.6	0.73	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07			
E	12.5	0.26	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07			
E	28.5	0.07	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08			
F	0.3	0.02	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06			
F	1.8	1.72	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07			
F	3.9	1.92	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07			
F	6.5	0.53	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07			
G	1.8	0.66	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08			
G	3.9	1.25	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08			
G	6.5	0.13	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08			

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 640 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

WSW SECTOR BOUNDARY DISTANCE = 3000.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.881E-06	2.224E-06	1.344E-06	1.280E-06	1.262E-06	1.038E-06	8.066E-07
0.018	0.046	0.066	1.057	8.917	11.361	11.955	15.984	38.177	39.300
0.00063	0.00164	0.00234	0.03733	0.31490	0.40120	0.42219	0.56448	1.34821	1.38786
6.875E-07	6.226E-07	5.975E-07	5.890E-07	5.450E-07	4.207E-07	3.585E-07	3.534E-07	3.243E-07	3.208E-07
41.017	59.379	61.030	75.495	75.694	80.119	81.110	87.781	88.507	90.423
1.44850	2.09695	2.15526	2.66608	2.67308	2.82936	2.86435	3.09993	3.12559	3.19323
2.422E-07	2.388E-07	1.925E-07	1.841E-07	1.729E-07	1.415E-07	1.038E-07	8.032E-08	7.011E-08	6.449E-08
90.489	91.215	91.744	92.008	94.584	94.716	96.631	96.698	97.886	98.547
3.19557	3.22122	3.23988	3.24921	3.34018	3.34485	3.41249	3.41482	3.45681	3.48013
5.404E-08	3.010E-08	1.806E-08							
98.613	99.868	100.000							
3.48247	3.52678	3.53145							

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2) = 0.315
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3) = 1.347

Calculation No. PM-1055 Revision 0

Attachment J

Page 641 of 1411

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (4)= 2.663
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (5)= 3.190
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (6)= 3.337

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
4	1	-11.07050	-16.26655	-1.18956
4	2	-13.01641	-17.02285	-1.46636
4	3	-13.77855	-18.25708	-2.02421
4	4	-14.34482	-29.16994	-7.67055
4	5	-14.95230	-71.85244	-30.69813
4	6	-15.57040	NUMXQ(K)= 6	
		4.847E-06	0.035	1.000
		3.336E-06	0.106	3.000
		2.772E-06	0.177	5.000
		2.103E-06	0.353	10.000
		1.718E-06	0.530	15.000
		1.480E-06	0.706	20.000
		1.313E-06	0.883	25.000
		1.188E-06	1.059	30.000
		1.090E-06	1.236	35.000
		1.000E-06	1.413	40.000
		9.099E-07	1.589	45.000
		8.351E-07	1.766	50.000
		7.718E-07	1.942	55.000
		7.175E-07	2.119	60.000
		6.704E-07	2.295	65.000
		6.290E-07	2.472	70.000
		5.924E-07	2.649	75.000
		4.856E-07	2.825	80.000
		3.960E-07	3.002	85.000
		3.260E-07	3.178	90.000
		1.769E-06	0.5	14.16

ANNUAL AVERAGE = 1.45E-08

K= 4 FIVEXQ(K)= 1.769E-06 FIVEPR(K)=14.158

FUMIGATION X/Q AT THE BOUNDARY: 1.52E-05

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	9.368E-01	7.317E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
5.746	9.049	13.804	17.985	71.702	97.952	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 642 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE W SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	1.7	0.15	3000.	0.	131.	505.2	1000.0	0.0	0.000E+00	0.000E+00	3.706E-07			
A	3.6	4.26	3000.	0.	131.	505.2	1000.0	0.0	0.000E+00	0.000E+00	1.729E-07			
A	6.0	2.25	3000.	0.	131.	505.2	1000.0	0.0	0.000E+00	0.000E+00	1.038E-07			
A	8.9	0.34	3000.	0.	131.	505.2	1000.0	0.0	0.000E+00	0.000E+00	7.011E-08			
B	1.7	0.24	3000.	0.	131.	379.9	363.6	0.0	0.000E+00	0.000E+00	1.280E-06			
B	3.6	2.74	3000.	0.	131.	379.9	363.6	0.0	0.000E+00	0.000E+00	5.975E-07			
B	6.0	0.59	3000.	0.	131.	379.9	363.6	0.0	0.000E+00	0.000E+00	3.585E-07			
B	8.9	0.05	3000.	0.	131.	379.9	363.6	0.0	0.000E+00	0.000E+00	2.422E-07			
C	1.7	0.05	3000.	0.	131.	288.5	166.2	0.0	0.000E+00	0.000E+00	2.881E-06			
C	3.6	2.45	3000.	0.	131.	288.5	166.2	0.0	0.000E+00	0.000E+00	1.344E-06			
C	6.0	0.68	3000.	0.	131.	288.5	166.2	0.0	0.000E+00	0.000E+00	8.066E-07			
C	8.9	0.15	3000.	0.	131.	288.5	166.2	0.0	0.000E+00	0.000E+00	5.450E-07			
C	11.6	0.05	3000.	0.	131.	288.5	166.2	0.0	0.000E+00	0.000E+00	4.201E-07			
D	0.2	0.01	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05			
D	1.7	5.63	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06			
D	3.6	21.28	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06			
D	6.0	16.19	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07			
D	8.9	6.46	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07			
D	11.6	1.57	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07			
D	26.5	0.39	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07			
E	0.3	0.02	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06			
E	1.8	2.94	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06			
E	3.9	13.85	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07			
E	6.5	7.88	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07			
E	9.6	2.84	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07			
E	12.5	0.59	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07			
E	28.5	0.98	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08			
F	0.3	0.02	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06			
F	1.8	1.52	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07			
F	3.9	1.66	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07			
F	6.5	0.64	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07			
F	28.5	0.20	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.375E-08			
G	1.8	0.64	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08			

G	3.9	0.64	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	0.10	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 644 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

W SECTOR BOUNDARY DISTANCE = 3000.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.
THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.
THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.881E-06	2.224E-06	1.344E-06	1.280E-06	1.262E-06	1.038E-06	8.066E-07
0.013	0.034	0.051	0.100	5.726	8.172	8.417	11.352	32.634	33.318
0.00061	0.00160	0.00244	0.00477	0.27301	0.38964	0.40130	0.54125	1.55590	1.58855
6.875E-07	6.226E-07	5.975E-07	5.890E-07	5.450E-07	4.207E-07	4.201E-07	3.706E-07	3.585E-07	3.534E-07
34.835	51.028	53.768	67.613	67.760	74.218	74.267	74.413	75.001	82.877
1.66086	2.43293	2.56355	3.22365	3.23065	3.53854	3.54088	3.54787	3.57586	3.95140
3.243E-07	3.208E-07	2.422E-07	2.388E-07	1.925E-07	1.841E-07	1.729E-07	1.415E-07	1.038E-07	8.032E-08
84.443	86.106	86.155	88.992	89.628	90.215	94.472	94.863	97.114	98.092
4.02604	4.10535	4.10768	4.24297	4.27329	4.30128	4.50421	4.52287	4.63017	4.67682
7.011E-08	6.449E-08	4.375E-08	3.010E-08	1.806E-08					
98.434	99.070	99.266	99.902	100.000					
4.69314	4.72347	4.73280	4.76312	4.76779					

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.273
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 1.554

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 3.221
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 4.102
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(6)= 4.501

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
5	1	-11.07050	-16.40331	-1.21878
5	2	-13.01641	-16.41644	-1.22351
5	3	-13.77855	-17.75925	-1.84633
5	4	-14.34482	-24.52711	-5.50600
5	5	-14.95230	-39.57753	-14.16076
5	6	-15.57040	NUMXQ(K) = 6	
		4.217E-06	0.048	1.000
		2.850E-06	0.143	3.000
		2.345E-06	0.238	5.000
		1.770E-06	0.477	10.000
		1.487E-06	0.715	15.000
		1.307E-06	0.954	20.000
		1.179E-06	1.192	25.000
		1.081E-06	1.430	30.000
		9.853E-07	1.669	35.000
		8.915E-07	1.907	40.000
		8.147E-07	2.146	45.000
		7.507E-07	2.384	50.000
		6.962E-07	2.622	55.000
		6.493E-07	2.861	60.000
		6.084E-07	3.099	65.000
		5.407E-07	3.337	70.000
		4.554E-07	3.576	75.000
		3.871E-07	3.814	80.000
		3.317E-07	4.053	85.000
		2.392E-07	4.291	90.000
		1.735E-06	0.5	10.49

ANNUAL AVERAGE = 1.64E-08

K= 5 FIVEXQ(K)= 1.735E-06 FIVEPR(K)=10.487

FUMIGATION X/Q AT THE BOUNDARY: 1.52E-05

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	9.368E-01	7.317E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
6.996	10.616	13.992	18.021	69.549	98.630	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 646 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE WNW SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN HT	EFF PLUME HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS						CA=1292.SQ.METERS					
A	3.6	2.40	3000.	0.	131.	505.2	1000.0	0.0	0.000E+00	0.000E+00	1.729E-07
A	6.0	2.40	3000.	0.	131.	505.2	1000.0	0.0	0.000E+00	0.000E+00	1.038E-07
A	8.9	0.16	3000.	0.	131.	505.2	1000.0	0.0	0.000E+00	0.000E+00	7.011E-08
A	11.6	0.05	3000.	0.	131.	505.2	1000.0	0.0	0.000E+00	0.000E+00	5.404E-08
A	26.5	0.05	3000.	0.	131.	505.2	1000.0	0.0	0.000E+00	0.000E+00	2.358E-08
B	3.6	1.58	3000.	0.	131.	379.9	363.6	0.0	0.000E+00	0.000E+00	5.975E-07
B	6.0	1.36	3000.	0.	131.	379.9	363.6	0.0	0.000E+00	0.000E+00	3.585E-07
B	8.9	0.11	3000.	0.	131.	379.9	363.6	0.0	0.000E+00	0.000E+00	2.422E-07
B	11.6	0.05	3000.	0.	131.	379.9	363.6	0.0	0.000E+00	0.000E+00	1.867E-07
C	3.6	3.54	3000.	0.	131.	288.5	166.2	0.0	0.000E+00	0.000E+00	1.344E-06
C	6.0	1.42	3000.	0.	131.	288.5	166.2	0.0	0.000E+00	0.000E+00	8.066E-07
C	8.9	0.22	3000.	0.	131.	288.5	166.2	0.0	0.000E+00	0.000E+00	5.450E-07
C	11.6	0.11	3000.	0.	131.	288.5	166.2	0.0	0.000E+00	0.000E+00	4.201E-07
D	0.2	0.01	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05
D	1.7	4.69	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06
D	3.6	16.58	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06
D	6.0	16.79	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07
D	8.9	7.63	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07
D	11.6	1.42	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07
D	26.5	0.11	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07
E	0.3	0.02	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06
E	1.8	3.27	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06
E	3.9	10.91	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07
E	6.5	14.01	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07
E	9.6	3.44	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07
E	12.5	1.15	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07
E	28.5	0.22	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08
F	0.3	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06
F	1.8	1.25	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07
F	3.9	2.84	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07
F	6.5	1.31	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07
F	9.6	0.11	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07
F	28.5	0.05	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.375E-08

G	1.8	0.27	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	0.33	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	0.11	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 648 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

WNW SECTOR BOUNDARY DISTANCE = 3000.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.224E-06	1.344E-06	1.262E-06	1.038E-06	8.066E-07	6.875E-07	6.226E-07
0.011	0.034	0.048	4.738	8.282	11.554	28.131	29.549	30.803	47.598
0.00045	0.00145	0.00207	0.20267	0.35428	0.49423	1.20332	1.26396	1.31761	2.03603
5.975E-07	5.890E-07	5.450E-07	4.207E-07	4.201E-07	3.585E-07	3.534E-07	3.243E-07	3.208E-07	2.422E-07
49.179	60.085	60.303	67.937	68.046	69.409	83.423	84.841	87.676	87.785
2.10367	2.57018	2.57951	2.90606	2.91073	2.96904	3.56850	3.62914	3.75044	3.75510
2.388E-07	1.925E-07	1.867E-07	1.841E-07	1.729E-07	1.415E-07	1.301E-07	1.038E-07	8.032E-08	7.011E-08
91.221	92.530	92.584	93.729	96.128	96.237	96.347	98.746	98.964	99.128
3.90205	3.95803	3.96036	4.00935	4.11198	4.11664	4.12131	4.22394	4.23327	4.24027
6.449E-08	5.404E-08	4.375E-08	3.010E-08	2.358E-08	1.806E-08				
99.400	99.455	99.509	99.836	99.891	100.000				
4.25193	4.25426	4.25659	4.27059	4.27292	4.27759				

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 1.202
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 2.568

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 3.565
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 3.747
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(6)= 4.109

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
6	1	-11.07050	-16.57913	-1.24111
6	2	-13.77855	-17.92739	-1.83861
6	3	-14.34482	-21.20910	-3.52281
6	4	-14.85564	-22.53152	-4.25605
6	5	-14.95230	-40.79952	-14.51431
6	6	-15.57040	NUMXQ(K)= 6	

3.954E-06	0.043	1.000
2.662E-06	0.128	3.000
2.187E-06	0.214	5.000
1.649E-06	0.428	10.000
1.384E-06	0.642	15.000
1.217E-06	0.856	20.000
1.097E-06	1.069	25.000
9.913E-07	1.283	30.000
8.872E-07	1.497	35.000
8.042E-07	1.711	40.000
7.363E-07	1.925	45.000
6.796E-07	2.139	50.000
6.313E-07	2.353	55.000
5.897E-07	2.567	60.000
5.225E-07	2.780	65.000
4.660E-07	2.994	70.000
4.184E-07	3.208	75.000
3.778E-07	3.422	80.000
3.408E-07	3.636	85.000
2.694E-07	3.850	90.000
1.543E-06	0.5	11.69

ANNUAL AVERAGE = 1.33E-08

K= 6 FIVEXQ(K)= 1.543E-06 FIVEPR(K)=11.689

FUMIGATION X/Q AT THE BOUNDARY: 1.52E-05

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	9.368E-01	7.317E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
5.071	8.179	13.469	19.045	66.278	99.291	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 650 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE NW SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	3.6	0.17	3000.	0.	131.		505.2	1000.0	0.0	0.000E+00	0.000E+00	1.729E-07		
A	6.0	0.87	3000.	0.	131.		505.2	1000.0	0.0	0.000E+00	0.000E+00	1.038E-07		
A	8.9	0.56	3000.	0.	131.		505.2	1000.0	0.0	0.000E+00	0.000E+00	7.011E-08		
B	1.7	0.09	3000.	0.	131.		379.9	363.6	0.0	0.000E+00	0.000E+00	1.280E-06		
B	3.6	0.43	3000.	0.	131.		379.9	363.6	0.0	0.000E+00	0.000E+00	5.975E-07		
B	6.0	1.17	3000.	0.	131.		379.9	363.6	0.0	0.000E+00	0.000E+00	3.585E-07		
B	8.9	0.35	3000.	0.	131.		379.9	363.6	0.0	0.000E+00	0.000E+00	2.422E-07		
B	11.6	0.04	3000.	0.	131.		379.9	363.6	0.0	0.000E+00	0.000E+00	1.867E-07		
C	3.6	0.61	3000.	0.	131.		288.5	166.2	0.0	0.000E+00	0.000E+00	1.344E-06		
C	6.0	2.69	3000.	0.	131.		288.5	166.2	0.0	0.000E+00	0.000E+00	8.066E-07		
C	8.9	0.48	3000.	0.	131.		288.5	166.2	0.0	0.000E+00	0.000E+00	5.450E-07		
D	0.2	0.00	4000.	0.	131.		263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05		
D	1.7	1.95	4000.	0.	131.		263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06		
D	3.6	14.72	4000.	0.	131.		263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06		
D	6.0	20.76	4000.	0.	131.		263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07		
D	8.9	6.99	4000.	0.	131.		263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07		
D	11.6	0.61	4000.	0.	131.		263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07		
D	26.5	0.30	4000.	0.	131.		263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07		
E	0.3	0.02	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06		
E	1.8	2.65	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06		
E	3.9	14.98	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07		
E	6.5	15.16	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07		
E	9.6	4.26	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07		
E	12.5	0.69	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07		
E	28.5	0.52	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08		
F	0.3	0.01	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06		
F	1.8	1.22	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07		
F	3.9	3.52	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07		
F	6.5	2.08	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07		
F	9.6	0.30	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07		
G	1.8	0.17	90000.	0.	131.		1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08		
G	3.9	1.22	90000.	0.	131.		1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08		
G	6.5	0.35	90000.	0.	131.		1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08		

G 9.6 0.04 90000. 0. 131. 1000.0 46.0 0.0 0.000E+00 0.000E+00 1.220E-08



Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 652 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1 96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

NW SECTOR BOUNDARY DISTANCE = 3000.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.
THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.
THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.224E-06	1.344E-06	1.280E-06	1.262E-06	1.038E-06	8.066E-07	6.875E-07
0.004	0.023	0.037	1.991	2.599	2.686	5.335	20.056	22.748	23.964
0.00024	0.00125	0.00200	0.10697	0.13962	0.14429	0.28657	1.07730	1.22191	1.28722
6.226E-07	5.975E-07	5.890E-07	5.450E-07	4.207E-07	3.585E-07	3.534E-07	3.243E-07	3.208E-07	2.422E-07
44.721	45.155	60.136	60.614	67.605	68.778	83.933	84.541	88.058	88.406
2.40217	2.42550	3.23022	3.25588	3.63141	3.69439	4.50844	4.54110	4.73003	4.74869
2.388E-07	1.925E-07	1.867E-07	1.841E-07	1.729E-07	1.415E-07	1.301E-07	1.038E-07	8.032E-08	7.011E-08
92.661	94.746	94.789	95.484	95.658	95.962	96.265	97.134	97.655	98.220
4.97728	5.08924	5.09157	5.12889	5.13822	5.15455	5.17088	5.21753	5.24552	5.27584
6.449E-08	3.010E-08	1.806E-08	1.220E-08						
98.393	99.609	99.957	100.000						
5.28517	5.35048	5.36914	5.37148						

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (2)= 1.076

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (3)= 3.227

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (4)= 4.505
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (5)= 4.726
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (6)= 4.974

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
7	1	-11.07050	-16.51221	-1.18921
7	2	-13.77855	-16.66913	-1.25747
7	3	-14.34482	-20.49533	-3.32748
7	4	-14.85564	-22.00885	-4.22047
7	5	-14.95230	-35.06060	-12.02664
7	6	-15.24768	NUMXQ(K) = 6	
		3.296E-06	0.054	1.000
		2.240E-06	0.161	3.000
		1.848E-06	0.269	5.000
		1.401E-06	0.537	10.000
		1.180E-06	0.806	15.000
		1.039E-06	1.074	20.000
		9.328E-07	1.343	25.000
		8.521E-07	1.611	30.000
		7.878E-07	1.880	35.000
		7.349E-07	2.149	40.000
		6.905E-07	2.417	45.000
		6.523E-07	2.686	50.000
		6.191E-07	2.954	55.000
		5.898E-07	3.223	60.000
		5.243E-07	3.491	65.000
		4.685E-07	3.760	70.000
		4.214E-07	4.029	75.000
		3.811E-07	4.297	80.000
		3.446E-07	4.566	85.000
		2.828E-07	4.834	90.000
		1.443E-06	0.5	9.31

ANNUAL AVERAGE = 1.26E-08

K= 7 FIVEXQ(K)= 1.443E-06 FIVEPR(K)= 9.308

FUMIGATION X/Q AT THE BOUNDARY: 1.52E-05

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	9.368E-01	7.317E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
1.607	3.691	7.469	14.605	59.944	98.220	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 654 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE NNW SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	3.6	0.09	3000.	0.	131.	505.2	1000.0	0.0	0.000E+00	0.000E+00	1.729E-07			
A	6.0	0.09	3000.	0.	131.	505.2	1000.0	0.0	0.000E+00	0.000E+00	1.038E-07			
B	3.6	0.14	3000.	0.	131.	379.9	363.6	0.0	0.000E+00	0.000E+00	5.975E-07			
B	6.0	0.37	3000.	0.	131.	379.9	363.6	0.0	0.000E+00	0.000E+00	3.585E-07			
B	8.9	0.37	3000.	0.	131.	379.9	363.6	0.0	0.000E+00	0.000E+00	2.422E-07			
B	11.6	0.05	3000.	0.	131.	379.9	363.6	0.0	0.000E+00	0.000E+00	1.867E-07			
C	3.6	0.55	3000.	0.	131.	288.5	166.2	0.0	0.000E+00	0.000E+00	1.344E-06			
C	6.0	1.01	3000.	0.	131.	288.5	166.2	0.0	0.000E+00	0.000E+00	8.066E-07			
C	8.9	0.46	3000.	0.	131.	288.5	166.2	0.0	0.000E+00	0.000E+00	5.450E-07			
C	11.6	0.05	3000.	0.	131.	288.5	166.2	0.0	0.000E+00	0.000E+00	4.201E-07			
D	0.2	0.00	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05			
D	1.7	1.61	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06			
D	3.6	11.17	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06			
D	6.0	21.42	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07			
D	8.9	5.42	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07			
D	11.6	0.51	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07			
D	26.5	0.32	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07			
E	0.3	0.02	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06			
E	1.8	2.71	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06			
E	3.9	14.29	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07			
E	6.5	20.36	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07			
E	9.6	7.58	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07			
E	12.5	0.51	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07			
E	28.5	0.09	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08			
F	0.3	0.02	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06			
F	1.8	1.47	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07			
F	3.9	4.14	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07			
F	6.5	3.63	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07			
F	9.6	0.37	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07			
G	1.8	0.41	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08			
G	3.9	0.46	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08			
G	6.5	0.28	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08			
G	9.6	0.05	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08			

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 655 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

SITE EXCLUSION BOUNDARY CALCULATIONS:

NNW SECTOR BOUNDARY DISTANCE = 3000.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.224E-06	1.344E-06	1.262E-06	1.038E-06	8.066E-07	6.875E-07	6.226E-07
0.004	0.023	0.040	1.648	2.200	4.912	16.079	17.091	18.561	39.978
0.00018	0.00116	0.00203	0.08366	0.11165	0.24927	0.81608	0.86739	0.94203	2.02899
5.975E-07	5.890E-07	5.450E-07	4.207E-07	4.201E-07	3.585E-07	3.534E-07	3.243E-07	3.208E-07	2.422E-07
40.116	54.409	54.869	60.292	60.338	60.705	81.065	81.571	85.707	86.075
2.03599	2.76140	2.78473	3.05997	3.06230	3.08096	4.11427	4.13992	4.34985	4.36851
2.388E-07	1.925E-07	1.867E-07	1.841E-07	1.729E-07	1.415E-07	1.301E-07	1.038E-07	8.032E-08	6.449E-08
93.658	97.288	97.334	97.840	97.932	98.254	98.621	98.713	98.805	99.219
4.75338	4.93765	4.93998	4.96564	4.97030	4.98663	5.00529	5.00996	5.01462	5.03561
3.010E-08	1.806E-08	1.220E-08							
99.678	99.954	100.000							
5.05894	5.07293	5.07527							

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.815
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 2.759

Calculation No. PM-1055 Revision 0

Attachment J

Page 656 of 1411

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 4.111
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 4.346

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
8	1	-11.07050	-16.70061	-1.21647
8	2	-13.77855	-16.58558	-1.16858
8	3	-14.34482	-19.80051	-2.84521
8	4	-14.85564	-21.28469	-3.69918
8	5	-14.95230	NUMXQ(K)= 5	
		3.043E-06	0.051	1.000
		2.054E-06	0.152	3.000
		1.689E-06	0.254	5.000
		1.274E-06	0.508	10.000
		1.070E-06	0.761	15.000
		9.440E-07	1.015	20.000
		8.547E-07	1.269	25.000
		7.862E-07	1.523	30.000
		7.314E-07	1.776	35.000
		6.861E-07	2.030	40.000
		6.477E-07	2.284	45.000
		6.147E-07	2.538	50.000
		5.812E-07	2.791	55.000
		5.214E-07	3.045	60.000
		4.711E-07	3.299	65.000
		4.283E-07	3.553	70.000
		3.916E-07	3.806	75.000
		3.597E-07	4.060	80.000
		3.255E-07	4.314	85.000
		1.283E-06	0.5	9.85

ANNUAL AVERAGE = 9.74E-09

K= 8 FIVEXQ(K)= 1.283E-06 FIVEPR(K)= 9.852

FUMIGATION X/Q AT THE BOUNDARY: 1.52E-05

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	9.368E-01	7.317E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
0.184	1.103	3.171	12.793	53.241	98.805	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 657 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE N SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	6.0	0.28	3000.	0.	131.	505.2	1000.0	0.0	0.000E+00	0.000E+00	1.038E-07			
A	8.9	0.16	3000.	0.	131.	505.2	1000.0	0.0	0.000E+00	0.000E+00	7.011E-08			
B	3.6	0.07	3000.	0.	131.	379.9	363.6	0.0	0.000E+00	0.000E+00	5.975E-07			
B	6.0	0.58	3000.	0.	131.	379.9	363.6	0.0	0.000E+00	0.000E+00	3.585E-07			
B	8.9	0.72	3000.	0.	131.	379.9	363.6	0.0	0.000E+00	0.000E+00	2.422E-07			
B	11.6	0.12	3000.	0.	131.	379.9	363.6	0.0	0.000E+00	0.000E+00	1.867E-07			
B	26.5	0.02	3000.	0.	131.	379.9	363.6	0.0	0.000E+00	0.000E+00	8.148E-08			
C	3.6	0.44	3000.	0.	131.	288.5	166.2	0.0	0.000E+00	0.000E+00	1.344E-06			
C	6.0	1.68	3000.	0.	131.	288.5	166.2	0.0	0.000E+00	0.000E+00	8.066E-07			
C	8.9	1.56	3000.	0.	131.	288.5	166.2	0.0	0.000E+00	0.000E+00	5.450E-07			
C	11.6	0.21	3000.	0.	131.	288.5	166.2	0.0	0.000E+00	0.000E+00	4.201E-07			
C	26.5	0.02	3000.	0.	131.	288.5	166.2	0.0	0.000E+00	0.000E+00	1.833E-07			
D	0.2	0.00	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05			
D	1.7	0.96	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06			
D	3.6	7.00	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06			
D	6.0	16.51	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07			
D	8.9	11.24	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07			
D	11.6	2.31	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07			
D	26.5	0.68	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07			
E	0.3	0.01	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06			
E	1.8	1.63	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06			
E	3.9	10.14	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07			
E	6.5	20.78	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07			
E	9.6	12.03	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07			
E	12.5	1.49	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07			
E	28.5	0.14	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08			
F	0.3	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06			
F	1.8	0.54	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07			
F	3.9	3.13	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07			
F	6.5	3.03	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07			
F	9.6	1.03	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07			
G	1.8	0.40	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08			
G	3.9	0.79	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08			

G	6.5	0.23	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	0.05	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 659 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

N SECTOR BOUNDARY DISTANCE = 3000.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.224E-06	1.344E-06	1.262E-06	1.038E-06	8.066E-07	6.875E-07	6.226E-07
0.002	0.014	0.020	0.976	1.419	3.052	10.048	11.727	12.264	28.776
0.00022	0.00138	0.00200	0.09763	0.14195	0.30523	1.00498	1.17292	1.22657	2.87800
5.975E-07	5.890E-07	5.450E-07	4.207E-07	4.201E-07	3.585E-07	3.534E-07	3.243E-07	3.208E-07	2.422E-07
28.846	38.990	40.553	51.794	52.004	52.587	73.367	75.675	78.801	79.524
2.88500	3.89965	4.05592	5.18020	5.20119	5.25951	7.33779	7.56871	7.88127	7.95357
2.388E-07	1.925E-07	1.867E-07	1.841E-07	1.833E-07	1.415E-07	1.301E-07	1.038E-07	8.148E-08	8.032E-08
91.558	94.589	94.706	96.199	96.222	96.898	97.924	98.204	98.228	98.367
9.15716	9.46038	9.47205	9.62133	9.62366	9.69130	9.79393	9.82192	9.82426	9.83825
7.011E-08	6.449E-08	3.010E-08	1.806E-08	1.220E-08					
98.531	98.927	99.720	99.953	100.000					
9.85458	9.89423	9.97354	9.99686	10.00153					

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 1.004
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 3.896

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (4)= 7.334
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (5)= 7.878
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (6)= 9.154

K I XQSAVE(K,I) XQINT(K,I) XQSLOP(K,I)
 9 1 -11.07050 -16.55160 -1.19275
 9 2 -13.77855 -16.12080 -1.00745
 9 3 -14.34482 -17.23583 -1.63997
 9 4 -14.85564 -18.54704 -2.54340
 9 5 -14.95230 -20.04292 -3.60179
 9 6 -15.24768 NUMXQ(K)= 6

2.586E-06	0.100	1.000
1.719E-06	0.300	3.000
1.400E-06	0.500	5.000
1.040E-06	1.000	10.000
8.881E-07	1.500	15.000
7.899E-07	2.000	20.000
7.187E-07	2.500	25.000
6.636E-07	3.000	30.000
6.191E-07	3.501	35.000
5.777E-07	4.001	40.000
5.276E-07	4.501	45.000
4.856E-07	5.001	50.000
4.498E-07	5.501	55.000
4.189E-07	6.001	60.000
3.919E-07	6.501	65.000
3.680E-07	7.001	70.000
3.431E-07	7.501	75.000
3.116E-07	8.001	80.000
2.768E-07	8.501	85.000
2.471E-07	9.001	90.000
1.400E-06	0.5	5.00

ANNUAL AVERAGE = 1.67E-08

K= 9 FIVEXQ(K)= 1.400E-06 FIVEPR(K)= 4.999

FUMIGATION X/Q AT THE BOUNDARY: 1.52E-05

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	9.368E-01	7.317E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
0.443	1.959	5.877	13.603	52.296	98.531	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 661 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1 96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE NNE SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	3.6	0.08	3000.	0.	131.		505.2	1000.0	0.0	0.000E+00	0.000E+00	1.729E-07		
A	6.0	0.28	3000.	0.	131.		505.2	1000.0	0.0	0.000E+00	0.000E+00	1.038E-07		
A	8.9	0.12	3000.	0.	131.		505.2	1000.0	0.0	0.000E+00	0.000E+00	7.011E-08		
B	3.6	0.16	3000.	0.	131.		379.9	363.6	0.0	0.000E+00	0.000E+00	5.975E-07		
B	6.0	0.56	3000.	0.	131.		379.9	363.6	0.0	0.000E+00	0.000E+00	3.585E-07		
B	8.9	0.36	3000.	0.	131.		379.9	363.6	0.0	0.000E+00	0.000E+00	2.422E-07		
B	11.6	0.08	3000.	0.	131.		379.9	363.6	0.0	0.000E+00	0.000E+00	1.867E-07		
C	3.6	0.20	3000.	0.	131.		288.5	166.2	0.0	0.000E+00	0.000E+00	1.344E-06		
C	6.0	1.47	3000.	0.	131.		288.5	166.2	0.0	0.000E+00	0.000E+00	8.066E-07		
C	8.9	0.95	3000.	0.	131.		288.5	166.2	0.0	0.000E+00	0.000E+00	5.450E-07		
D	0.2	0.00	4000.	0.	131.		263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05		
D	1.7	0.91	4000.	0.	131.		263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06		
D	3.6	7.60	4000.	0.	131.		263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06		
D	6.0	16.91	4000.	0.	131.		263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07		
D	8.9	6.60	4000.	0.	131.		263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07		
D	11.6	0.64	4000.	0.	131.		263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07		
D	26.5	0.36	4000.	0.	131.		263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07		
E	0.3	0.02	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06		
E	1.8	2.23	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06		
E	3.9	12.73	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07		
E	6.5	22.95	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07		
E	9.6	9.07	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07		
E	12.5	0.76	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07		
E	28.5	0.16	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08		
F	0.3	0.01	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06		
F	1.8	1.27	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07		
F	3.9	5.61	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07		
F	6.5	4.42	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07		
F	9.6	0.91	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07		
F	12.5	0.12	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	1.003E-07		
G	1.8	0.36	90000.	0.	131.		1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08		
G	3.9	1.23	90000.	0.	131.		1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08		
G	6.5	0.84	90000.	0.	131.		1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08		

G 9.6 0.04 90000. 0. 131. 1000.0 46.0 0.0 0.000E+00 0.000E+00 1.220E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 663 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

NNE SECTOR BOUNDARY DISTANCE = 3000.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.224E-06	1.344E-06	1.262E-06	1.038E-06	8.066E-07	6.875E-07	6.226E-07
0.002	0.018	0.033	0.948	1.146	3.374	10.972	12.444	13.717	30.624
0.00012	0.00105	0.00191	0.05556	0.06722	0.19784	0.64336	0.72966	0.80430	1.79562
5.975E-07	5.890E-07	5.450E-07	4.207E-07	3.585E-07	3.534E-07	3.243E-07	3.208E-07	2.422E-07	2.388E-07
30.783	43.512	44.467	51.070	51.627	74.581	75.217	80.826	81.184	90.254
1.80495	2.55136	2.60734	2.99454	3.02720	4.37306	4.41038	4.73927	4.76026	5.29208
1.925E-07	1.867E-07	1.841E-07	1.729E-07	1.415E-07	1.301E-07	1.038E-07	1.003E-07	8.032E-08	7.011E-08
94.669	94.749	95.505	95.584	95.942	96.857	97.136	97.255	97.414	97.534
5.55099	5.55565	5.59997	5.60464	5.62563	5.67928	5.69561	5.70260	5.71193	5.71893
6.449E-08	3.010E-08	1.806E-08	1.220E-08						
97.892	99.125	99.960	100.000						
5.73992	5.81223	5.86121	5.86355						

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.643
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 2.549

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 4.370
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 4.736
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(6)= 5.288

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
10	1	-11.07050	-16.80436	-1.21624
10	2	-13.77855	-16.40606	-1.05614
10	3	-14.34482	-18.45844	-2.10774
10	4	-14.85564	-19.17181	-2.52507
10	5	-14.95230	-24.17399	-5.51852
10	6	-15.24768	NUMXQ(K) = 6	
		2.608E-06	0.059	1.000
		1.752E-06	0.176	3.000
		1.437E-06	0.293	5.000
		1.080E-06	0.586	10.000
		9.206E-07	0.880	15.000
		8.213E-07	1.173	20.000
		7.493E-07	1.466	25.000
		6.938E-07	1.759	30.000
		6.490E-07	2.052	35.000
		6.118E-07	2.345	40.000
		5.713E-07	2.639	45.000
		5.187E-07	2.932	50.000
		4.745E-07	3.225	55.000
		4.369E-07	3.518	60.000
		4.045E-07	3.811	65.000
		3.763E-07	4.104	70.000
		3.511E-07	4.398	75.000
		3.249E-07	4.691	80.000
		2.806E-07	4.984	85.000
		2.406E-07	5.277	90.000
		1.155E-06	0.5	8.53

ANNUAL AVERAGE = 9.03E-09

K= 10 FIVEXQ(K)= 1.155E-06 FIVEPR(K)= 8.527

FUMIGATION X/Q AT THE BOUNDARY: 1.52E-05

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	9.368E-01	7.317E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
0.477	1.631	4.256	16.603	49.623	97.534	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 665 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE NE SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	3.6	0.09	3000.	0.	131.	505.2	1000.0	0.0	0.000E+00	0.000E+00	1.729E-07			
A	6.0	0.23	3000.	0.	131.	505.2	1000.0	0.0	0.000E+00	0.000E+00	1.038E-07			
A	8.9	0.09	3000.	0.	131.	505.2	1000.0	0.0	0.000E+00	0.000E+00	7.011E-08			
B	3.6	0.14	3000.	0.	131.	379.9	363.6	0.0	0.000E+00	0.000E+00	5.975E-07			
B	6.0	0.61	3000.	0.	131.	379.9	363.6	0.0	0.000E+00	0.000E+00	3.585E-07			
B	8.9	0.28	3000.	0.	131.	379.9	363.6	0.0	0.000E+00	0.000E+00	2.422E-07			
B	11.6	0.05	3000.	0.	131.	379.9	363.6	0.0	0.000E+00	0.000E+00	1.867E-07			
C	3.6	0.33	3000.	0.	131.	288.5	166.2	0.0	0.000E+00	0.000E+00	1.344E-06			
C	6.0	1.41	3000.	0.	131.	288.5	166.2	0.0	0.000E+00	0.000E+00	8.066E-07			
C	8.9	0.99	3000.	0.	131.	288.5	166.2	0.0	0.000E+00	0.000E+00	5.450E-07			
C	11.6	0.19	3000.	0.	131.	288.5	166.2	0.0	0.000E+00	0.000E+00	4.201E-07			
C	26.5	0.05	3000.	0.	131.	288.5	166.2	0.0	0.000E+00	0.000E+00	1.833E-07			
D	0.2	0.00	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05			
D	1.7	1.50	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06			
D	3.6	7.28	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06			
D	6.0	13.48	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07			
D	8.9	5.92	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07			
D	11.6	0.75	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07			
D	26.5	0.14	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07			
E	0.3	0.02	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06			
E	1.8	2.77	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06			
E	3.9	13.19	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07			
E	6.5	16.62	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07			
E	9.6	10.14	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07			
E	12.5	0.85	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07			
E	28.5	0.09	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08			
F	0.3	0.02	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06			
F	1.8	1.50	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07			
F	3.9	7.32	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07			
F	6.5	7.37	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07			
F	9.6	1.83	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07			
G	1.8	0.28	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08			
G	3.9	1.69	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08			

G	6.5	2.39	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	0.38	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 667 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

NE SECTOR BOUNDARY DISTANCE = 3000.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.224E-06	1.344E-06	1.262E-06	1.038E-06	8.066E-07	6.875E-07	6.226E-07
0.003	0.023	0.040	1.543	1.872	4.642	11.919	13.328	14.830	28.305
0.00017	0.00115	0.00201	0.07665	0.09298	0.23060	0.59214	0.66211	0.73676	1.40619
5.975E-07	5.890E-07	5.450E-07	4.207E-07	4.201E-07	3.585E-07	3.534E-07	3.243E-07	3.208E-07	2.422E-07
28.446	41.639	42.625	48.541	48.729	49.339	65.960	66.711	74.036	74.318
1.41319	2.06863	2.11761	2.41151	2.42084	2.45116	3.27687	3.31419	3.67807	3.69206
2.388E-07	1.925E-07	1.867E-07	1.841E-07	1.833E-07	1.729E-07	1.415E-07	1.301E-07	1.038E-07	8.032E-08
84.459	91.830	91.877	92.723	92.769	92.863	93.004	94.835	95.070	95.164
4.19589	4.56209	4.56443	4.60641	4.60875	4.61341	4.62041	4.71138	4.72304	4.72770
7.011E-08	6.449E-08	3.010E-08	1.806E-08	1.220E-08					
95.258	95.540	97.230	99.624	100.000					
4.73237	4.74636	4.83034	4.94929	4.96795					

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (2)= 0.591

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (3)= 2.066

Calculation No. PM-1055 Revision 0

Attachment J

Page 668 of 1411

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 3.675
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 4.192

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
11	1	-11.07050	-16.97960	-1.27166
11	2	-13.77855	-16.76686	-1.18715
11	3	-14.34482	-19.29282	-2.42524
11	4	-14.95230	-23.62529	-4.84597
11	5	-15.24768	NUMXQ(K)= 5	
		2.781E-06	0.050	1.000
		1.846E-06	0.149	3.000
		1.505E-06	0.248	5.000
		1.122E-06	0.497	10.000
		9.413E-07	0.745	15.000
		8.301E-07	0.994	20.000
		7.505E-07	1.242	25.000
		6.896E-07	1.490	30.000
		6.410E-07	1.739	35.000
		6.008E-07	1.987	40.000
		5.445E-07	2.236	45.000
		4.886E-07	2.484	50.000
		4.423E-07	2.732	55.000
		4.033E-07	2.981	60.000
		3.700E-07	3.229	65.000
		3.413E-07	3.478	70.000
		3.118E-07	3.726	75.000
		2.699E-07	3.974	80.000
		1.119E-06	0.5	10.06

ANNUAL AVERAGE = 7.50E-09

K= 11 FIVEXQ(K)= 1.119E-06 FIVEPR(K)=10.065

FUMIGATION X/Q AT THE BOUNDARY: 1.52E-05

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	9.368E-01	7.317E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
0.423	1.502	4.460	22.507	51.573	95.258	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 669 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE ENE SECTOR.

STABILITY CLASS	WINDSPEED METER/SEC	FREQUENCY PERCENT	DISTANCE METERS	TERRAIN METERS	HT METERS	EFF PLUME METERS	SIGMA-Y METERS	SIGMA-Z METERS	MEANDER-SY METERS	** CHI/Q VALUES (SEC/CUBIC METER)		
										MEANDER	BLDG WAKE	USED
AT 131.4 METERS												
CA=1292.SQ.METERS												
A	6.0	0.33	3000.	0.	131.	131.	505.2	1000.0	0.0	0.000E+00	0.000E+00	1.038E-07
A	8.9	0.14	3000.	0.	131.	131.	505.2	1000.0	0.0	0.000E+00	0.000E+00	7.011E-08
A	11.6	0.09	3000.	0.	131.	131.	505.2	1000.0	0.0	0.000E+00	0.000E+00	5.404E-08
A	26.5	0.09	3000.	0.	131.	131.	505.2	1000.0	0.0	0.000E+00	0.000E+00	2.358E-08
B	3.6	0.05	3000.	0.	131.	131.	379.9	363.6	0.0	0.000E+00	0.000E+00	5.975E-07
B	6.0	0.38	3000.	0.	131.	131.	379.9	363.6	0.0	0.000E+00	0.000E+00	3.585E-07
B	8.9	0.89	3000.	0.	131.	131.	379.9	363.6	0.0	0.000E+00	0.000E+00	2.422E-07
B	11.6	0.09	3000.	0.	131.	131.	379.9	363.6	0.0	0.000E+00	0.000E+00	1.867E-07
B	26.5	0.05	3000.	0.	131.	131.	379.9	363.6	0.0	0.000E+00	0.000E+00	8.148E-08
C	3.6	0.14	3000.	0.	131.	131.	288.5	166.2	0.0	0.000E+00	0.000E+00	1.344E-06
C	6.0	1.22	3000.	0.	131.	131.	288.5	166.2	0.0	0.000E+00	0.000E+00	8.066E-07
C	8.9	1.46	3000.	0.	131.	131.	288.5	166.2	0.0	0.000E+00	0.000E+00	5.450E-07
C	11.6	0.19	3000.	0.	131.	131.	288.5	166.2	0.0	0.000E+00	0.000E+00	4.201E-07
C	26.5	0.05	3000.	0.	131.	131.	288.5	166.2	0.0	0.000E+00	0.000E+00	1.833E-07
D	0.2	0.00	4000.	0.	131.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05
D	1.7	0.71	4000.	0.	131.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06
D	3.6	6.02	4000.	0.	131.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06
D	6.0	9.93	4000.	0.	131.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07
D	8.9	8.94	4000.	0.	131.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07
D	11.6	1.03	4000.	0.	131.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07
D	26.5	0.28	4000.	0.	131.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07
E	0.3	0.02	9000.	0.	131.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06
E	1.8	2.54	9000.	0.	131.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06
E	3.9	8.80	9000.	0.	131.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07
E	6.5	13.97	9000.	0.	131.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07
E	9.6	12.75	9000.	0.	131.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07
E	12.5	1.41	9000.	0.	131.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07
E	28.5	0.05	9000.	0.	131.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08
F	0.3	0.02	90000.	0.	131.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06
F	1.8	1.55	90000.	0.	131.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07
F	3.9	5.50	90000.	0.	131.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07
F	6.5	8.33	90000.	0.	131.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07
F	9.6	5.13	90000.	0.	131.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07
F	12.5	0.85	90000.	0.	131.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.003E-07

G	1.8	0.85	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	1.60	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	3.29	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	1.22	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08
G	12.5	0.05	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	9.405E-09

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 671 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

SITE EXCLUSION BOUNDARY CALCULATIONS:

ENE SECTOR BOUNDARY DISTANCE = 3000.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.
THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.
THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.224E-06	1.344E-06	1.262E-06	1.038E-06	8.066E-07	6.875E-07	6.226E-07
0.002	0.020	0.038	0.743	0.884	3.425	9.446	10.669	12.221	22.147
0.00008	0.00098	0.00186	0.03685	0.04385	0.16981	0.46837	0.52901	0.60599	1.09815
5.975E-07	5.890E-07	5.450E-07	4.207E-07	4.201E-07	3.585E-07	3.534E-07	3.243E-07	3.208E-07	2.422E-07
22.194	30.991	32.449	41.387	41.575	41.951	55.922	56.957	62.461	63.355
1.10048	1.53667	1.60897	2.05215	2.06148	2.08014	2.77290	2.82422	3.09712	3.14144
2.388E-07	1.925E-07	1.867E-07	1.841E-07	1.833E-07	1.415E-07	1.301E-07	1.038E-07	1.003E-07	8.148E-08
76.103	84.429	84.523	85.935	85.982	86.264	91.391	91.721	92.567	92.615
3.77356	4.18641	4.19108	4.26105	4.26339	4.27738	4.53163	4.54795	4.58994	4.59227
8.032E-08	7.011E-08	6.449E-08	5.404E-08	3.010E-08	2.358E-08	1.806E-08	1.220E-08	9.405E-09	
92.662	92.803	93.649	93.744	95.343	95.437	98.730	99.953	100.000	
4.59460	4.60160	4.64359	4.64825	4.72756	4.73222	4.89550	4.95615	4.95848	

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.001

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= -0.468

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 1.535
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 3.094
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(6)= 3.770
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(7)= 4.183

K	I	XQSAVE(K, I)	XQINT(K, I)	XQSLOP(K, I)
12	1	-11.07050	-16.19649	-1.06775
12	2	-11.63677	-17.10820	-1.28125
12	3	-13.77855	-17.13988	-1.29344
12	4	-14.34482	-18.81252	-2.06747
12	5	-14.95230	-21.13972	-3.31388
12	6	-15.24768	-23.20281	-4.47423
12	7	-15.46313	NUMXQ(K)= 7	
		2.526E-06	0.050	1.000
		1.671E-06	0.149	3.000
		1.360E-06	0.248	5.000
		1.012E-06	0.496	10.000
		8.405E-07	0.744	15.000
		7.329E-07	0.992	20.000
		6.567E-07	1.240	25.000
		5.989E-07	1.488	30.000
		5.325E-07	1.735	35.000
		4.757E-07	1.983	40.000
		4.299E-07	2.231	45.000
		3.920E-07	2.479	50.000
		3.601E-07	2.727	55.000
		3.329E-07	2.975	60.000
		3.025E-07	3.223	65.000
		2.709E-07	3.471	70.000
		2.441E-07	3.719	75.000
		2.154E-07	3.967	80.000
		1.008E-06	0.5	10.08

ANNUAL AVERAGE = 6.17E-09

K= 12 FIVEXQ(K)= 1.008E-06 FIVEPR(K)=10.084

FUMIGATION X/Q AT THE BOUNDARY: 1.52E-05

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	9.368E-01	7.317E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
0.659	2.117	5.175	26.549	53.458	92.991	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 673 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE E SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q	VALUES	(SEC/CUBIC METER)	
CLASS	METER/SEC	PERCENT	METERS	METERS			METERS		METERS	METERS	METERS	MEANDER	BLDG	WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS			
A	3.6	0.03	3000.	0.			131.		505.2	1000.0	0.0	0.000E+00	0.000E+00		1.729E-07
A	6.0	0.24	3000.	0.			131.		505.2	1000.0	0.0	0.000E+00	0.000E+00		1.038E-07
A	8.9	0.63	3000.	0.			131.		505.2	1000.0	0.0	0.000E+00	0.000E+00		7.011E-08
A	11.6	0.42	3000.	0.			131.		505.2	1000.0	0.0	0.000E+00	0.000E+00		5.404E-08
A	26.5	0.06	3000.	0.			131.		505.2	1000.0	0.0	0.000E+00	0.000E+00		2.358E-08
B	3.6	0.12	3000.	0.			131.		379.9	363.6	0.0	0.000E+00	0.000E+00		5.975E-07
B	6.0	0.63	3000.	0.			131.		379.9	363.6	0.0	0.000E+00	0.000E+00		3.585E-07
B	8.9	0.81	3000.	0.			131.		379.9	363.6	0.0	0.000E+00	0.000E+00		2.422E-07
B	11.6	0.36	3000.	0.			131.		379.9	363.6	0.0	0.000E+00	0.000E+00		1.867E-07
B	26.5	0.18	3000.	0.			131.		379.9	363.6	0.0	0.000E+00	0.000E+00		8.148E-08
C	3.6	0.15	3000.	0.			131.		288.5	166.2	0.0	0.000E+00	0.000E+00		1.344E-06
C	6.0	1.25	3000.	0.			131.		288.5	166.2	0.0	0.000E+00	0.000E+00		8.066E-07
C	8.9	1.67	3000.	0.			131.		288.5	166.2	0.0	0.000E+00	0.000E+00		5.450E-07
C	11.6	0.86	3000.	0.			131.		288.5	166.2	0.0	0.000E+00	0.000E+00		4.201E-07
C	26.5	0.39	3000.	0.			131.		288.5	166.2	0.0	0.000E+00	0.000E+00		1.833E-07
D	0.2	0.00	4000.	0.			131.		263.4	78.0	0.0	0.000E+00	0.000E+00		1.556E-05
D	1.7	0.78	4000.	0.			131.		263.4	78.0	0.0	0.000E+00	0.000E+00		2.224E-06
D	3.6	4.21	4000.	0.			131.		263.4	78.0	0.0	0.000E+00	0.000E+00		1.038E-06
D	6.0	8.98	4000.	0.			131.		263.4	78.0	0.0	0.000E+00	0.000E+00		6.226E-07
D	8.9	11.78	4000.	0.			131.		263.4	78.0	0.0	0.000E+00	0.000E+00		4.207E-07
D	11.6	6.71	4000.	0.			131.		263.4	78.0	0.0	0.000E+00	0.000E+00		3.243E-07
D	26.5	2.68	4000.	0.			131.		263.4	78.0	0.0	0.000E+00	0.000E+00		1.415E-07
E	0.3	0.01	9000.	0.			131.		389.6	74.2	0.0	0.000E+00	0.000E+00		8.835E-06
E	1.8	1.61	9000.	0.			131.		389.6	74.2	0.0	0.000E+00	0.000E+00		1.262E-06
E	3.9	5.16	9000.	0.			131.		389.6	74.2	0.0	0.000E+00	0.000E+00		5.890E-07
E	6.5	11.78	9000.	0.			131.		389.6	74.2	0.0	0.000E+00	0.000E+00		3.534E-07
E	9.6	15.99	9000.	0.			131.		389.6	74.2	0.0	0.000E+00	0.000E+00		2.388E-07
E	12.5	2.33	9000.	0.			131.		389.6	74.2	0.0	0.000E+00	0.000E+00		1.841E-07
E	28.5	0.27	9000.	0.			131.		389.6	74.2	0.0	0.000E+00	0.000E+00		8.032E-08
F	0.3	0.01	90000.	0.			131.		1000.0	92.1	0.0	0.000E+00	0.000E+00		4.813E-06
F	1.8	0.89	90000.	0.			131.		1000.0	92.1	0.0	0.000E+00	0.000E+00		6.875E-07
F	3.9	2.54	90000.	0.			131.		1000.0	92.1	0.0	0.000E+00	0.000E+00		3.208E-07
F	6.5	5.91	90000.	0.			131.		1000.0	92.1	0.0	0.000E+00	0.000E+00		1.925E-07
F	9.6	5.01	90000.	0.			131.		1000.0	92.1	0.0	0.000E+00	0.000E+00		1.301E-07

Calculation No. PM-1055 Revision 0

Attachment J

Page 674 of 1411

F	12.5	0.72	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.003E-07
G	1.8	0.39	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	1.19	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	2.06	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	1.16	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08
G	12.5	0.03	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	9.405E-09
G	28.5	0.03	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	4.104E-09

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 675 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

E SECTOR BOUNDARY DISTANCE = 3000.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.
 THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.
 THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.224E-06	1.344E-06	1.262E-06	1.038E-06	8.066E-07	6.875E-07	6.226E-07
0.002	0.013	0.024	0.799	0.948	2.559	6.764	8.017	8.912	17.889
0.00014	0.00103	0.00184	0.06249	0.07415	0.20011	0.52899	0.62696	0.69693	1.39902
5.975E-07	5.890E-07	5.450E-07	4.207E-07	4.201E-07	3.585E-07	3.534E-07	3.243E-07	3.208E-07	2.422E-07
18.009	23.168	24.839	36.620	37.485	38.111	49.892	56.603	59.138	59.944
1.40835	1.81188	1.94250	2.86385	2.93149	2.98048	3.90182	4.42664	4.62491	4.68788
2.388E-07	1.925E-07	1.867E-07	1.841E-07	1.833E-07	1.729E-07	1.415E-07	1.301E-07	1.038E-07	1.003E-07
75.930	81.836	82.194	84.520	84.908	84.938	87.622	92.633	92.872	93.587
5.93812	6.39996	6.42795	6.60988	6.64021	6.64254	6.85247	7.24433	7.26299	7.31897
8.148E-08	8.032E-08	7.011E-08	6.449E-08	5.404E-08	3.010E-08	2.358E-08	1.806E-08	1.220E-08	9.405E-09
93.766	94.035	94.661	95.049	95.466	96.659	96.719	98.777	99.940	99.970
7.33297	7.35396	7.40294	7.43326	7.46592	7.55922	7.56389	7.72483	7.81580	7.81813
4.104E-09									
100.000									
7.82046									

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
 THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
 ORDERED X/Q-FREQUENCY VALUES, AND AS
 PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS

Calculation No. PM-1055 Revision 0

SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

Attachment J

Page 676 of 1411

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.528
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 1.810
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 4.621
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 5.934
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(6)= 6.636

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
13	1	-11.07050	-17.02495	-1.26976
13	2	-13.77855	-16.91227	-1.22569
13	3	-14.34482	-17.43370	-1.47462
13	4	-14.95230	-19.01254	-2.41288
13	5	-15.24768	-22.49907	-4.64738
13	6	-15.51202	NUMXQ(K)= 6	
		2.240E-06	0.078	1.000
		1.464E-06	0.235	3.000
		1.183E-06	0.391	5.000
		8.750E-07	0.782	10.000
		7.269E-07	1.173	15.000
		6.334E-07	1.564	20.000
		5.626E-07	1.955	25.000
		5.028E-07	2.346	30.000
		4.561E-07	2.737	35.000
		4.184E-07	3.128	40.000
		3.870E-07	3.519	45.000
		3.604E-07	3.910	50.000
		3.375E-07	4.301	55.000
		3.155E-07	4.692	60.000
		2.875E-07	5.083	65.000
		2.633E-07	5.474	70.000
		2.424E-07	5.865	75.000
		2.112E-07	6.256	80.000
		1.064E-06	0.5	6.39

ANNUAL AVERAGE = 1.02E-08

K= 13 FIVEXQ(K)= 1.064E-06 FIVEPR(K)= 6.393

FUMIGATION X/Q AT THE BOUNDARY: 1.52E-05

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	9.368E-01	7.317E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
1.372	3.460	7.785	22.857	57.994	95.138	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 677 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE ESE SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	6.0	0.24	3000.	0.	131.	505.2	1000.0	0.0	0.000E+00	0.000E+00	1.038E-07			
A	8.9	0.24	3000.	0.	131.	505.2	1000.0	0.0	0.000E+00	0.000E+00	7.011E-08			
A	11.6	0.05	3000.	0.	131.	505.2	1000.0	0.0	0.000E+00	0.000E+00	5.404E-08			
A	26.5	0.13	3000.	0.	131.	505.2	1000.0	0.0	0.000E+00	0.000E+00	2.358E-08			
B	3.6	0.08	3000.	0.	131.	379.9	363.6	0.0	0.000E+00	0.000E+00	5.975E-07			
B	6.0	0.24	3000.	0.	131.	379.9	363.6	0.0	0.000E+00	0.000E+00	3.585E-07			
B	8.9	0.53	3000.	0.	131.	379.9	363.6	0.0	0.000E+00	0.000E+00	2.422E-07			
B	11.6	0.37	3000.	0.	131.	379.9	363.6	0.0	0.000E+00	0.000E+00	1.867E-07			
B	26.5	0.19	3000.	0.	131.	379.9	363.6	0.0	0.000E+00	0.000E+00	8.148E-08			
C	3.6	0.13	3000.	0.	131.	288.5	166.2	0.0	0.000E+00	0.000E+00	1.344E-06			
C	6.0	0.69	3000.	0.	131.	288.5	166.2	0.0	0.000E+00	0.000E+00	8.066E-07			
C	8.9	1.57	3000.	0.	131.	288.5	166.2	0.0	0.000E+00	0.000E+00	5.450E-07			
C	11.6	0.80	3000.	0.	131.	288.5	166.2	0.0	0.000E+00	0.000E+00	4.201E-07			
C	26.5	0.72	3000.	0.	131.	288.5	166.2	0.0	0.000E+00	0.000E+00	1.833E-07			
D	0.2	0.00	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05			
D	1.7	1.01	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06			
D	3.6	2.59	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06			
D	6.0	9.48	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07			
D	8.9	17.99	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07			
D	11.6	11.96	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07			
D	26.5	4.03	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07			
E	0.3	0.01	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06			
E	1.8	0.96	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06			
E	3.9	3.68	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07			
E	6.5	9.45	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07			
E	9.6	15.56	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07			
E	12.5	2.96	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07			
E	28.5	0.32	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08			
F	0.3	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06			
F	1.8	0.75	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07			
F	3.9	1.76	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07			
F	6.5	3.74	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07			
F	9.6	3.68	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07			
F	12.5	0.48	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.003E-07			

G	1.8	0.37	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	0.93	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	1.17	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	1.04	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08
G	12.5	0.05	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	9.405E-09

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 679 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

ESE SECTOR BOUNDARY DISTANCE = 3000.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.224E-06	1.344E-06	1.262E-06	1.038E-06	8.066E-07	6.875E-07	6.226E-07
0.002	0.009	0.018	1.032	1.165	2.126	4.715	5.409	6.157	15.632
0.00020	0.00080	0.00155	0.09019	0.10185	0.18582	0.41208	0.47272	0.53803	1.36608
5.975E-07	5.890E-07	5.450E-07	4.207E-07	4.201E-07	3.585E-07	3.534E-07	3.243E-07	3.208E-07	2.422E-07
15.712	19.395	20.970	38.959	39.760	40.000	49.448	61.406	63.167	63.701
1.37308	1.69496	1.83258	3.40471	3.47468	3.49567	4.32139	5.36636	5.52031	5.56696
2.388E-07	1.925E-07	1.867E-07	1.841E-07	1.833E-07	1.415E-07	1.301E-07	1.038E-07	1.003E-07	8.148E-08
79.262	82.998	83.372	86.335	87.055	91.085	94.769	95.009	95.489	95.676
6.92682	7.25337	7.28603	7.54494	7.60791	7.96013	8.28201	8.30301	8.34499	8.36132
8.032E-08	7.011E-08	6.449E-08	5.404E-08	3.010E-08	2.358E-08	1.806E-08	1.220E-08	9.405E-09	
95.996	96.237	96.610	96.664	97.598	97.731	98.906	99.947	100.000	
8.38931	8.41030	8.44296	8.44762	8.52926	8.54092	8.64356	8.73452	8.73919	

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (2)= 0.090

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (3)= 1.693

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (4)= 3.472
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (5)= 5.517
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (6)= 6.923
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (7)= 7.604

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
14	1	-11.07050	-17.09216	-1.30589
14	2	-13.01641	-17.16515	-1.32927
14	3	-14.34482	-16.68710	-1.10396
14	4	-14.68275	-16.91855	-1.23144
14	5	-14.95230	-19.04797	-2.56507
14	6	-15.24768	-23.18534	-5.35766
14	7	-15.51202	NUMXQ(K)= 7	
		2.251E-06	0.087	1.000
		1.436E-06	0.262	3.000
		1.146E-06	0.437	5.000
		8.269E-07	0.874	10.000
		6.743E-07	1.311	15.000
		5.810E-07	1.748	20.000
		5.250E-07	2.185	25.000
		4.819E-07	2.622	30.000
		4.474E-07	3.059	35.000
		4.187E-07	3.496	40.000
		3.918E-07	3.933	45.000
		3.687E-07	4.370	50.000
		3.487E-07	4.807	55.000
		3.310E-07	5.244	60.000
		3.094E-07	5.680	65.000
		2.812E-07	6.117	70.000
		2.569E-07	6.554	75.000
		2.327E-07	6.991	80.000
		1.962E-07	7.428	85.000
		1.078E-06	0.5	5.72

ANNUAL AVERAGE = 1.20E-08

K= 14 FIVEXQ(K)= 1.078E-06 FIVEPR(K)= 5.721

FUMIGATION X/Q AT THE BOUNDARY: 1.52E-05

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	9.368E-01	7.317E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
0.667	2.082	6.005	16.423	63.481	96.423	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 681 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE SE SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	6.0	0.04	3000.	0.	131.	505.2	1000.0	0.0	0.000E+00	0.000E+00	1.038E-07			
A	8.9	0.06	3000.	0.	131.	505.2	1000.0	0.0	0.000E+00	0.000E+00	7.011E-08			
A	26.5	0.02	3000.	0.	131.	505.2	1000.0	0.0	0.000E+00	0.000E+00	2.358E-08			
B	3.6	0.08	3000.	0.	131.	379.9	363.6	0.0	0.000E+00	0.000E+00	5.975E-07			
B	6.0	0.04	3000.	0.	131.	379.9	363.6	0.0	0.000E+00	0.000E+00	3.585E-07			
B	8.9	0.19	3000.	0.	131.	379.9	363.6	0.0	0.000E+00	0.000E+00	2.422E-07			
B	11.6	0.08	3000.	0.	131.	379.9	363.6	0.0	0.000E+00	0.000E+00	1.867E-07			
C	3.6	0.06	3000.	0.	131.	288.5	166.2	0.0	0.000E+00	0.000E+00	1.344E-06			
C	6.0	0.55	3000.	0.	131.	288.5	166.2	0.0	0.000E+00	0.000E+00	8.066E-07			
C	8.9	0.74	3000.	0.	131.	288.5	166.2	0.0	0.000E+00	0.000E+00	5.450E-07			
C	11.6	0.59	3000.	0.	131.	288.5	166.2	0.0	0.000E+00	0.000E+00	4.201E-07			
C	26.5	0.13	3000.	0.	131.	288.5	166.2	0.0	0.000E+00	0.000E+00	1.833E-07			
D	0.2	0.00	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05			
D	1.7	0.76	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06			
D	3.6	4.10	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06			
D	6.0	11.52	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07			
D	8.9	22.08	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07			
D	11.6	11.54	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07			
D	26.5	3.91	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07			
E	0.3	0.01	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06			
E	1.8	0.83	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06			
E	3.9	3.61	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07			
E	6.5	11.03	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07			
E	9.6	13.83	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07			
E	12.5	1.89	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07			
E	28.5	0.13	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08			
F	0.3	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06			
F	1.8	0.55	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07			
F	3.9	2.00	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07			
F	6.5	3.78	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07			
F	9.6	1.91	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07			
G	1.8	0.28	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08			
G	3.9	1.49	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08			

Calculation No. PM-1055 Revision 0**Attachment J****Page 682 of 1411**

G	6.5	1.95	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	0.19	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 683 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

SE SECTOR BOUNDARY DISTANCE = 3000.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.
THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.
THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.224E-06	1.344E-06	1.262E-06	1.038E-06	8.066E-07	6.875E-07	6.226E-07
0.002	0.008	0.014	0.779	0.843	1.671	5.772	6.324	6.877	18.392
0.00019	0.00084	0.00154	0.08551	0.09251	0.18347	0.63365	0.69430	0.75494	2.01917
5.975E-07	5.890E-07	5.450E-07	4.207E-07	4.201E-07	3.585E-07	3.534E-07	3.243E-07	3.208E-07	2.422E-07
18.477	22.089	22.833	44.908	45.503	45.545	56.572	68.109	70.106	70.297
2.02850	2.42503	2.50667	4.93016	4.99547	5.00014	6.21072	7.47728	7.69654	7.71753
2.388E-07	1.925E-07	1.867E-07	1.841E-07	1.833E-07	1.415E-07	1.301E-07	1.038E-07	8.032E-08	7.011E-08
84.129	87.911	87.996	89.887	90.014	93.923	95.836	95.878	96.006	96.069
9.23600	9.65119	9.66052	9.86812	9.88211	10.31130	10.52122	10.52589	10.53988	10.54688
6.449E-08	3.010E-08	2.358E-08	1.806E-08	1.220E-08					
96.346	97.833	97.854	99.809	100.000					
10.57720	10.74048	10.74281	10.95740	10.97840					

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (2)= 2.017

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (4)= 4.992

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (5)= 7.693
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (6)= 9.233

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
15	1	-11.07050	-16.85513	-1.25144
15	2	-14.28938	-15.76828	-0.72133
15	3	-14.34482	-16.37957	-1.03110
15	4	-14.68275	-16.70270	-1.22745
15	5	-14.95230	-19.18667	-2.96931
15	6	-15.24768	NUMXQ(K)= 6	
		2.210E-06	0.110	1.000
		1.435E-06	0.329	3.000
		1.155E-06	0.549	5.000
		8.421E-07	1.098	10.000
		6.908E-07	1.647	15.000
		6.071E-07	2.196	20.000
		5.576E-07	2.745	25.000
		5.132E-07	3.294	30.000
		4.774E-07	3.842	35.000
		4.477E-07	4.391	40.000
		4.224E-07	4.940	45.000
		3.970E-07	5.489	50.000
		3.744E-07	6.038	55.000
		3.546E-07	6.587	60.000
		3.370E-07	7.136	65.000
		3.212E-07	7.685	70.000
		2.881E-07	8.234	75.000
		2.594E-07	8.783	80.000
		1.202E-06	0.5	4.55

ANNUAL AVERAGE = 1.59E-08

K= 15 FIVEXQ(K)= 1.202E-06 FIVEPR(K)= 4.554

FUMIGATION X/Q AT THE BOUNDARY: 1.52E-05

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	9.368E-01	7.317E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
0.127	0.531	2.613	10.863	64.767	96.091	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 685 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE SSE SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN HT	EFF PLUME HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS						CA=1292.SQ.METERS					
A	3.6	0.02	3000.	0.	131.	505.2	1000.0	0.0	0.000E+00	0.000E+00	1.729E-07
A	6.0	0.17	3000.	0.	131.	505.2	1000.0	0.0	0.000E+00	0.000E+00	1.038E-07
A	8.9	0.32	3000.	0.	131.	505.2	1000.0	0.0	0.000E+00	0.000E+00	7.011E-08
A	11.6	0.02	3000.	0.	131.	505.2	1000.0	0.0	0.000E+00	0.000E+00	5.404E-08
A	26.5	0.02	3000.	0.	131.	505.2	1000.0	0.0	0.000E+00	0.000E+00	2.358E-08
B	3.6	0.06	3000.	0.	131.	379.9	363.6	0.0	0.000E+00	0.000E+00	5.975E-07
B	6.0	0.48	3000.	0.	131.	379.9	363.6	0.0	0.000E+00	0.000E+00	3.585E-07
B	8.9	0.71	3000.	0.	131.	379.9	363.6	0.0	0.000E+00	0.000E+00	2.422E-07
B	11.6	0.11	3000.	0.	131.	379.9	363.6	0.0	0.000E+00	0.000E+00	1.867E-07
C	3.6	0.48	3000.	0.	131.	288.5	166.2	0.0	0.000E+00	0.000E+00	1.344E-06
C	6.0	2.16	3000.	0.	131.	288.5	166.2	0.0	0.000E+00	0.000E+00	8.066E-07
C	8.9	2.01	3000.	0.	131.	288.5	166.2	0.0	0.000E+00	0.000E+00	5.450E-07
C	11.6	0.37	3000.	0.	131.	288.5	166.2	0.0	0.000E+00	0.000E+00	4.201E-07
D	0.2	0.00	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05
D	1.7	1.08	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06
D	3.6	8.31	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06
D	6.0	20.04	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07
D	8.9	19.82	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07
D	11.6	5.23	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07
D	26.5	1.36	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07
E	0.3	0.01	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06
E	1.8	0.73	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06
E	3.9	4.38	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07
E	6.5	11.10	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07
E	9.6	10.11	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07
E	12.5	0.93	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07
E	28.5	0.22	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08
F	0.3	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06
F	1.8	0.48	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07
F	3.9	2.09	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07
F	6.5	2.72	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07
F	9.6	0.69	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07
F	12.5	0.11	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.003E-07

G	1.8	0.41	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	1.27	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	1.84	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	0.11	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08
G	28.5	0.02	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	4.104E-09

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 687 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

SSE SECTOR BOUNDARY DISTANCE = 3000.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.224E-06	1.344E-06	1.262E-06	1.038E-06	8.066E-07	6.875E-07	6.226E-07
0.002	0.008	0.013	1.093	1.568	2.302	10.617	12.776	13.251	33.292
0.00026	0.00083	0.00142	0.11805	0.16936	0.24867	1.14669	1.37994	1.43126	3.59584
5.975E-07	5.890E-07	5.450E-07	4.207E-07	4.201E-07	3.585E-07	3.534E-07	3.243E-07	3.208E-07	2.422E-07
33.356	37.740	39.749	59.573	59.940	60.416	71.516	76.742	78.836	79.549
3.60284	4.07634	4.29327	6.43452	6.47418	6.52549	7.72441	8.28888	8.51513	8.59211
2.388E-07	1.925E-07	1.867E-07	1.841E-07	1.729E-07	1.415E-07	1.301E-07	1.038E-07	1.003E-07	8.032E-08
89.656	92.377	92.485	93.413	93.435	94.795	95.487	95.659	95.767	95.983
9.68373	9.97763	9.98929	10.08959	10.09192	10.23887	10.31351	10.33217	10.34383	10.36716
7.011E-08	6.449E-08	5.404E-08	3.010E-08	2.358E-08	1.806E-08	1.220E-08	4.104E-09		
96.307	96.717	96.739	98.013	98.035	99.870	99.978	100.000		
10.40215	10.44647	10.44880	10.58642	10.58875	10.78701	10.79868	10.80101		

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (2)= 3.593
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (4)= 6.470

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (5)= 8.512
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (6)= 9.680
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (7)= 10.087

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
16	1	-11.07050	-16.39345	-1.16890
16	2	-14.28938	-16.01698	-0.95975
16	3	-14.34482	-16.95189	-1.49635
16	4	-14.68275	-17.50211	-1.85919
16	5	-14.95230	-20.61899	-4.13186
16	6	-15.24768	-29.74677	-11.15336
16	7	-15.50797	NUMXQ(K)= 7	
		2.739E-06	0.108	1.000
		1.831E-06	0.324	3.000
		1.495E-06	0.540	5.000
		1.114E-06	1.080	10.000
		9.262E-07	1.620	15.000
		8.072E-07	2.160	20.000
		7.224E-07	2.700	25.000
		6.577E-07	3.240	30.000
		6.091E-07	3.780	35.000
		5.655E-07	4.320	40.000
		5.199E-07	4.860	45.000
		4.815E-07	5.401	50.000
		4.485E-07	5.941	55.000
		4.197E-07	6.481	60.000
		3.886E-07	7.021	65.000
		3.614E-07	7.561	70.000
		3.374E-07	8.101	75.000
		3.104E-07	8.641	80.000
		2.702E-07	9.181	85.000
		2.331E-07	9.721	90.000
		1.543E-06	0.5	4.63

ANNUAL AVERAGE = 2.19E-08

K= 16 FIVEXQ(K)= 1.543E-06 FIVEPR(K)= 4.629

FUMIGATION X/Q AT THE BOUNDARY: 1.52E-05

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	9.368E-01	7.317E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
0.561	1.922	6.932	13.028	68.876	96.350	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 689 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE ALL SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)
CLASS	METER/SEC	PERCENT	METERS	METERS			METERS		METERS	METERS	METERS	MEANDER BLDG WAKE USED
AT 131.4 METERS												
CA=1292.SQ.METERS												
A	1.7	0.01	3000.	0.			131.		505.2	1000.0	0.0	0.000E+00 0.000E+00 3.706E-07
A	3.6	0.51	3000.	0.			131.		505.2	1000.0	0.0	0.000E+00 0.000E+00 1.729E-07
A	6.0	0.53	3000.	0.			131.		505.2	1000.0	0.0	0.000E+00 0.000E+00 1.038E-07
A	8.9	0.28	3000.	0.			131.		505.2	1000.0	0.0	0.000E+00 0.000E+00 7.011E-08
A	11.6	0.06	3000.	0.			131.		505.2	1000.0	0.0	0.000E+00 0.000E+00 5.404E-08
A	26.5	0.03	3000.	0.			131.		505.2	1000.0	0.0	0.000E+00 0.000E+00 2.358E-08
B	1.7	0.05	3000.	0.			131.		379.9	363.6	0.0	0.000E+00 0.000E+00 1.280E-06
B	3.6	0.47	3000.	0.			131.		379.9	363.6	0.0	0.000E+00 0.000E+00 5.975E-07
B	6.0	0.54	3000.	0.			131.		379.9	363.6	0.0	0.000E+00 0.000E+00 3.585E-07
B	8.9	0.44	3000.	0.			131.		379.9	363.6	0.0	0.000E+00 0.000E+00 2.422E-07
B	11.6	0.12	3000.	0.			131.		379.9	363.6	0.0	0.000E+00 0.000E+00 1.867E-07
B	26.5	0.03	3000.	0.			131.		379.9	363.6	0.0	0.000E+00 0.000E+00 8.148E-08
C	1.7	0.08	3000.	0.			131.		288.5	166.2	0.0	0.000E+00 0.000E+00 2.881E-06
C	3.6	0.77	3000.	0.			131.		288.5	166.2	0.0	0.000E+00 0.000E+00 1.344E-06
C	6.0	1.33	3000.	0.			131.		288.5	166.2	0.0	0.000E+00 0.000E+00 8.066E-07
C	8.9	1.04	3000.	0.			131.		288.5	166.2	0.0	0.000E+00 0.000E+00 5.450E-07
C	11.6	0.30	3000.	0.			131.		288.5	166.2	0.0	0.000E+00 0.000E+00 4.201E-07
C	26.5	0.13	3000.	0.			131.		288.5	166.2	0.0	0.000E+00 0.000E+00 1.833E-07
D	0.2	0.00	4000.	0.			131.		263.4	78.0	0.0	0.000E+00 0.000E+00 1.556E-05
D	1.7	2.07	4000.	0.			131.		263.4	78.0	0.0	0.000E+00 0.000E+00 2.224E-06
D	3.6	9.39	4000.	0.			131.		263.4	78.0	0.0	0.000E+00 0.000E+00 1.038E-06
D	6.0	15.72	4000.	0.			131.		263.4	78.0	0.0	0.000E+00 0.000E+00 6.226E-07
D	8.9	12.23	4000.	0.			131.		263.4	78.0	0.0	0.000E+00 0.000E+00 4.207E-07
D	11.6	4.24	4000.	0.			131.		263.4	78.0	0.0	0.000E+00 0.000E+00 3.243E-07
D	26.5	1.39	4000.	0.			131.		263.4	78.0	0.0	0.000E+00 0.000E+00 1.415E-07
E	0.3	0.01	9000.	0.			131.		389.6	74.2	0.0	0.000E+00 0.000E+00 8.835E-06
E	1.8	1.97	9000.	0.			131.		389.6	74.2	0.0	0.000E+00 0.000E+00 1.262E-06
E	3.9	8.90	9000.	0.			131.		389.6	74.2	0.0	0.000E+00 0.000E+00 5.890E-07
E	6.5	13.85	9000.	0.			131.		389.6	74.2	0.0	0.000E+00 0.000E+00 3.534E-07
E	9.6	9.53	9000.	0.			131.		389.6	74.2	0.0	0.000E+00 0.000E+00 2.388E-07
E	12.5	1.29	9000.	0.			131.		389.6	74.2	0.0	0.000E+00 0.000E+00 1.841E-07
E	28.5	0.23	9000.	0.			131.		389.6	74.2	0.0	0.000E+00 0.000E+00 8.032E-08
F	0.3	0.01	90000.	0.			131.		1000.0	92.1	0.0	0.000E+00 0.000E+00 4.813E-06
F	1.8	1.01	90000.	0.			131.		1000.0	92.1	0.0	0.000E+00 0.000E+00 6.875E-07

Calculation No. PM-1055 Revision 0
Attachment J
Page 690 of 1411

F	3.9	3.14	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07
F	6.5	3.52	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07
F	9.6	1.55	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07
F	12.5	0.16	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.003E-07
F	28.5	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.375E-08
G	1.8	0.43	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	1.17	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	1.14	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	0.31	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08
G	12.5	0.01	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	9.405E-09
G	28.5	0.00	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	4.104E-09

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 691 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

DIRECTION-INDEPENDENT (S.R.P 2.3.4) MODEL.

MINIMUM BOUNDARY DISTANCE = 3000.0 METERS.

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED:

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.881E-06	2.224E-06	1.344E-06	1.280E-06	1.262E-06	1.038E-06	8.066E-07
0.005	0.019	0.030	0.107	2.174	2.939	2.986	4.952	14.343	15.672
0.00467	0.01866	0.03032	0.10730	2.17391	2.93898	2.98563	4.95195	14.34269	15.67223
6.875E-07	6.226E-07	5.975E-07	5.890E-07	5.450E-07	4.207E-07	4.201E-07	3.706E-07	3.585E-07	3.534E-07
16.682	32.401	32.872	41.768	42.811	55.041	55.344	55.351	55.894	69.740
16.68221	32.40110	32.87226	41.76851	42.81115	55.04058	55.34380	55.35080	55.89428	69.74014
3.243E-07	3.208E-07	2.422E-07	2.388E-07	1.925E-07	1.867E-07	1.841E-07	1.833E-07	1.729E-07	1.415E-07
73.981	77.123	77.563	87.089	90.607	90.728	92.023	92.149	92.662	94.050
73.98067	77.12259	77.56344	87.08946	90.60691	90.72820	92.02275	92.14870	92.66186	94.04971
1.301E-07	1.038E-07	1.003E-07	8.148E-08	8.032E-08	7.011E-08	6.449E-08	5.404E-08	4.375E-08	3.010E-08
95.603	96.135	96.296	96.331	96.559	96.837	97.271	97.329	97.341	98.514
95.60317	96.13499	96.29594	96.33092	96.55951	96.83708	97.27094	97.32925	97.34091	98.51417
2.358E-08	1.806E-08	1.220E-08	9.405E-09	4.104E-09					
98.542	99.678	99.986	99.995	100.000					
98.54216	99.67810	99.98599	99.99532	99.99998					

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS

Calculation No. PM-1055 Revision 0

Attachment J

Page 692 of 1411

SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

3.452E-06	1.000	1.000
2.258E-06	3.000	3.000
1.803E-06	5.000	5.000
1.276E-06	10.000	10.000
1.018E-06	15.000	15.000
8.952E-07	20.000	20.000
8.016E-07	25.000	25.000
7.259E-07	30.000	30.000
6.622E-07	35.000	35.000
6.070E-07	40.000	40.000
5.589E-07	45.000	45.000
5.158E-07	50.000	50.000
4.761E-07	55.000	55.000
4.388E-07	60.000	60.000
4.033E-07	65.000	65.000
3.690E-07	70.000	70.000
3.352E-07	75.000	75.000
2.976E-07	80.000	80.000
2.566E-07	85.000	85.000
2.075E-07	90.000	90.000
1.803E-06	5.0	5.00

K= 17 FIVEXQ(K)= 1.803E-06 FIVEPR(K)= 5.000

FUMIGATION X/Q AT THE BOUNDARY: 1.52E-05

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	9.368E-01	7.317E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
1.416	3.074	6.718	16.125	61.163	96.935	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 693 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

FIVE PERCENT OVERALL SITE LIMIT

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.881E-06	2.224E-06	1.344E-06	1.280E-06	1.262E-06	1.038E-06	8.066E-07
0.005	0.019	0.030	0.107	2.174	2.939	2.986	4.952	14.343	15.672
0.00467	0.01866	0.03032	0.10730	2.17391	2.93898	2.98563	4.95195	14.34270	15.67224
6.875E-07	6.226E-07	5.975E-07	5.890E-07	5.450E-07	4.207E-07	4.201E-07	3.706E-07	3.585E-07	3.534E-07
16.682	32.401	32.872	41.769	42.811	55.041	55.344	55.351	55.894	69.740
16.68222	32.40110	32.87227	41.76852	42.81116	55.04059	55.34381	55.35081	55.89429	69.74016
3.243E-07	3.208E-07	2.422E-07	2.388E-07	1.925E-07	1.867E-07	1.841E-07	1.833E-07	1.729E-07	1.415E-07
73.981	77.123	77.563	87.089	90.607	90.728	92.023	92.149	92.662	94.050
73.98068	77.12260	77.56346	87.08949	90.60693	90.72823	92.02279	92.14875	92.66190	94.04974
1.301E-07	1.038E-07	1.003E-07	8.148E-08	8.032E-08	7.011E-08	6.449E-08	5.404E-08	4.375E-08	3.010E-08
95.603	96.135	96.296	96.331	96.560	96.837	97.271	97.329	97.341	98.514
95.60320	96.13503	96.29597	96.33096	96.55956	96.83711	97.27095	97.32925	97.34092	98.51418
2.358E-08	1.806E-08	1.220E-08	9.405E-09	4.104E-09					
98.542	99.678	99.986	99.995	100.000					
98.54217	99.67809	99.98599	99.99532	99.99999					

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS

Calculation No. PM-1055 Revision 0

SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

Attachment J

Page 694 of 1411

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
18	1	-11.07050	-14.79329	-0.95274
18	2	-13.77855	-14.48178	-0.66027
18	3	-14.34482	-14.47745	-0.63940
18	4	-14.95230	-14.38701	-0.76119
18	5	-15.24768	-14.19785	-0.92848
18	6	-15.51202	NUMXQ(K) = 6	
		3.452E-06	1.000	1.000
		2.258E-06	3.000	3.000
		1.803E-06	5.000	5.000
		1.276E-06	10.000	10.000
		1.018E-06	15.000	15.000
		8.952E-07	20.000	20.000
		8.016E-07	25.000	25.000
		7.259E-07	30.000	30.000
		6.622E-07	35.000	35.000
		6.070E-07	40.000	40.000
		5.589E-07	45.000	45.000
		5.158E-07	50.000	50.000
		4.761E-07	55.000	55.000
		4.388E-07	60.000	60.000
		4.033E-07	65.000	65.000
		3.690E-07	70.000	70.000
		3.352E-07	75.000	75.000
		2.976E-07	80.000	80.000
		2.566E-07	85.000	85.000
		2.075E-07	90.000	90.000
		1.803E-06	5.0	5.00

K= 18 FIVEXQ(K) = 1.803E-06 FIVEPR(K) = 5.000

K	HIGHPR	PR	GRNDVT(K)
1	-2.72372	0.32276	6.21119
2	-1.62492	5.20893	3.52599
3	-2.63716	0.41802	3.10868
4	-2.57624	0.49942	3.53145
5	-2.59196	0.47715	4.76778
6	-2.68629	0.36126	4.27759
7	-2.74725	0.30049	5.37148
8	-2.84056	0.22518	5.07527
9	-2.77212	0.27847	10.00153
10	-2.92641	0.17146	5.86355
11	-2.93666	0.16589	4.96796
12	-3.01506	0.12847	4.95848
13	-2.97677	0.14566	7.82046
14	-2.94898	0.15942	8.73919
15	-2.88466	0.19592	10.97840
16	-2.69338	0.35366	10.80101

K	HOURS (K)	TOTHR
1	28.27370	28.27370
2	456.30200	484.57570
3	36.61849	521.19420
4	43.74879	564.94300
5	41.79861	606.74160
6	31.64670	638.38830
7	26.32300	664.71130
8	19.72580	684.43710
9	24.39370	708.83080
10	15.01978	723.85060
11	14.53211	738.38270
12	11.25413	749.63680
13	12.75998	762.39680
14	13.96507	776.36190
15	17.16263	793.52450
16	30.98046	824.50500

K	FIVEXQ	SVANN	SLTIME	TIMINT	I	TIME	XQT
1	1.479E-06	1.428E-08	-0.5535	-13.0402	1	8.0	-14.19107
					2	16.0	-14.57469
					3	72.0	-15.40712
					4	624.0	-16.60229
2	1.301E-06	1.016E-08	-0.5787	-13.1513	1	8.0	-14.35475
					2	16.0	-14.75589
					3	72.0	-15.62633
					4	624.0	-16.87607
3	1.591E-06	1.159E-08	-0.5870	-12.9442	1	8.0	-14.16475
					2	16.0	-14.57160
					3	72.0	-15.45444
					4	624.0	-16.72198
4	1.769E-06	1.449E-08	-0.5730	-12.8480	1	8.0	-14.03953
					2	16.0	-14.43672
					3	72.0	-15.29859
					4	624.0	-16.53602
5	1.735E-06	1.635E-08	-0.5563	-12.8788	1	8.0	-14.03557
					2	16.0	-14.42116
					3	72.0	-15.25785
					4	624.0	-16.45914
6	1.543E-06	1.328E-08	-0.5671	-12.9886	1	8.0	-14.16792
					2	16.0	-14.56101
					3	72.0	-15.41399
					4	624.0	-16.63866
7	1.443E-06	1.256E-08	-0.5658	-13.0563	1	8.0	-14.23289
					2	16.0	-14.62507
					3	72.0	-15.47607

Calculation No. PM-1055 Revision 0

Attachment J

Page 696 of 1411

8	1.283E-06	9.739E-09	-0.5820	-13.1633	4	624.0	-16.69790
					1	8.0	-14.37356
					2	16.0	-14.77700
					3	72.0	-15.65242
					4	624.0	-16.90932
9	1.400E-06	1.665E-08	-0.5286	-13.1124	1	8.0	-14.21153
					2	16.0	-14.57790
					3	72.0	-15.37289
					4	624.0	-16.51431
10	1.155E-06	9.035E-09	-0.5785	-13.2700	1	8.0	-14.47308
					2	16.0	-14.87410
					3	72.0	-15.74428
					4	624.0	-16.99365
11	1.119E-06	7.497E-09	-0.5969	-13.2897	1	8.0	-14.53101
					2	16.0	-14.94477
					3	72.0	-15.84259
					4	624.0	-17.13165
12	1.008E-06	6.167E-09	-0.6078	-13.3864	1	8.0	-14.65024
					2	16.0	-15.07153
					3	72.0	-15.98569
					4	624.0	-17.29819
13	1.064E-06	1.020E-08	-0.5542	-13.3696	1	8.0	-14.52205
					2	16.0	-14.90621
					3	72.0	-15.73980
					4	624.0	-16.93664
14	1.078E-06	1.200E-08	-0.5364	-13.3688	1	8.0	-14.48428
					2	16.0	-14.85610
					3	72.0	-15.66293
					4	624.0	-16.82135
15	1.202E-06	1.590E-08	-0.5159	-13.2735	1	8.0	-14.34635
					2	16.0	-14.70396
					3	72.0	-15.47995
					4	624.0	-16.59407
16	1.543E-06	2.188E-08	-0.5075	-13.0303	1	8.0	-14.08565
					2	16.0	-14.43743
					3	72.0	-15.20076
					4	624.0	-16.29673
17	1.803E-06	2.188E-08	-0.5261	-12.8611	1	8.0	-13.95522
					2	16.0	-14.31992
					3	72.0	-15.11128
					4	624.0	-16.24749
18	1.803E-06	2.188E-08	-0.5261	-12.8611	1	8.0	-13.95522

2	16.0	-14.31992
3	72.0	-15.11128
4	624.0	-16.24749

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 698 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

RELATIVE CONCENTRATION (X/Q) VALUES (SEC/CUBIC METER)

VERSUS

AVERAGING TIME

HOURS PER YEAR MAX

0-2 HR X/Q IS

EXCEEDED

DOWNWIND

DOWNWIND DISTANCE SECTOR (METERS)	0-2 HOURS	0-8 HOURS	8-24 HOURS	1-4 DAYS	4-30 DAYS	ANNUAL AVERAGE	IN SECTOR	DOWNWIND SECTOR
S 3000.	1.48E-06	6.87E-07	4.68E-07	2.04E-07	6.16E-08	1.43E-08	28.3	S
SSW 3000.	1.30E-06	5.83E-07	3.90E-07	1.64E-07	4.69E-08	1.02E-08	456.3	SSW
SW 3000.	1.59E-06	7.05E-07	4.69E-07	1.94E-07	5.47E-08	1.16E-08	36.6	SW
WSW 3000.	1.77E-06	7.99E-07	5.37E-07	2.27E-07	6.58E-08	1.45E-08	43.7	WSW
W 3000.	1.74E-06	8.02E-07	5.46E-07	2.36E-07	7.11E-08	1.64E-08	41.8	W
WNW 3000.	1.54E-06	7.03E-07	4.74E-07	2.02E-07	5.94E-08	1.33E-08	31.6	WNW
NW 3000.	1.44E-06	6.59E-07	4.45E-07	1.90E-07	5.60E-08	1.26E-08	26.3	NW
NNW 3000.	1.28E-06	5.72E-07	3.82E-07	1.59E-07	4.53E-08	9.74E-09	19.7	NNW
N 3000.	1.40E-06	6.73E-07	4.67E-07	2.11E-07	6.73E-08	1.67E-08	24.4	N
NNE 3000.	1.16E-06	5.18E-07	3.47E-07	1.45E-07	4.17E-08	9.03E-09	15.0	NNE
NE 3000.	1.12E-06	4.89E-07	3.23E-07	1.32E-07	3.63E-08	7.50E-09	14.5	NE
ENE 3000.	1.01E-06	4.34E-07	2.85E-07	1.14E-07	3.07E-08	6.17E-09	11.3	ENE
E 3000.	1.06E-06	4.93E-07	3.36E-07	1.46E-07	4.41E-08	1.02E-08	12.8	E
ESE 3000.	1.08E-06	5.12E-07	3.53E-07	1.58E-07	4.95E-08	1.20E-08	14.0	ESE
SE 3000.	1.20E-06	5.88E-07	4.11E-07	1.89E-07	6.21E-08	1.59E-08	17.2	SE
SSE 3000.	1.54E-06	7.63E-07	5.37E-07	2.50E-07	8.36E-08	2.19E-08	31.0	SSE
MAX X/Q	1.77E-06					TOTAL HOURS AROUND SITE:	824.5	
SRP 2.3.4 3000.	1.80E-06	8.70E-07	6.04E-07	2.74E-07	8.79E-08	2.19E-08		
SITE LIMIT	1.80E-06	8.70E-07	6.04E-07	2.74E-07	8.79E-08	2.19E-08		

THE FIVE-PERCENT-FOR-THE-ENTIRE-SITE X/Q IS LIMITING.

X/Q VALUES (SEC/CUBIC METER) FOR FUMIGATION AT THE BOUNDARY:

DOWNWIND DISTANCE FUMIGATION

SECTOR (METERS)	X/Q
S 3000.	1.52E-05
SSW 3000.	1.52E-05
SW 3000.	1.52E-05
WSW 3000.	1.52E-05
W 3000.	1.52E-05
WNW 3000.	1.52E-05
NW 3000.	1.52E-05
NNW 3000.	1.52E-05
N 3000.	1.52E-05
NNE 3000.	1.52E-05
NE 3000.	1.52E-05
ENE 3000.	1.52E-05
E 3000.	1.52E-05

Calculation No. PM-1055 Revision 0**Attachment J****Page 699 of 1411**

ESE	3000.	1.52E-05
SE	3000.	1.52E-05
SSE	3000.	1.52E-05

****NOTE**:** VALUES ON THIS PAGE ARE APPROXIMATIONS ONLY.
CHECK THE REASONABLENESS OF THE ENVELOPES
COMPUTED FOR THE 0-2 HOUR VALUES. FOR ANY
FAULTY ENVELOPES,, ADJUST THE ABOVE VALUES.

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 700 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE S SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	3.6	0.23	4000.	0.	131.	655.0	1000.0	0.0	0.000E+00	0.000E+00	1.334E-07			
A	8.9	0.08	4000.	0.	131.	655.0	1000.0	0.0	0.000E+00	0.000E+00	5.407E-08			
A	11.6	0.08	4000.	0.	131.	655.0	1000.0	0.0	0.000E+00	0.000E+00	4.168E-08			
B	3.6	0.49	4000.	0.	131.	492.6	497.9	0.0	0.000E+00	0.000E+00	3.469E-07			
B	6.0	0.15	4000.	0.	131.	492.6	497.9	0.0	0.000E+00	0.000E+00	2.082E-07			
B	8.9	0.38	4000.	0.	131.	492.6	497.9	0.0	0.000E+00	0.000E+00	1.406E-07			
B	11.6	0.04	4000.	0.	131.	492.6	497.9	0.0	0.000E+00	0.000E+00	1.084E-07			
C	3.6	1.16	4000.	0.	131.	374.1	216.1	0.0	0.000E+00	0.000E+00	9.062E-07			
C	6.0	1.58	4000.	0.	131.	374.1	216.1	0.0	0.000E+00	0.000E+00	5.437E-07			
C	8.9	0.68	4000.	0.	131.	374.1	216.1	0.0	0.000E+00	0.000E+00	3.674E-07			
C	11.6	0.15	4000.	0.	131.	374.1	216.1	0.0	0.000E+00	0.000E+00	2.832E-07			
C	26.5	0.04	4000.	0.	131.	374.1	216.1	0.0	0.000E+00	0.000E+00	1.236E-07			
D	0.2	0.01	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05			
D	1.7	2.22	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06			
D	3.6	12.39	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06			
D	6.0	19.57	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07			
D	8.9	14.87	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07			
D	11.6	2.74	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07			
D	26.5	0.56	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07			
E	0.3	0.02	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06			
E	1.8	2.25	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06			
E	3.9	8.83	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07			
E	6.5	13.78	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07			
E	9.6	5.86	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07			
E	12.5	0.86	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07			
E	28.5	0.26	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08			
F	0.3	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06			
F	1.8	0.98	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07			
F	3.9	3.72	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07			
F	6.5	3.04	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07			
F	9.6	0.15	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07			
F	12.5	0.04	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.003E-07			
G	1.8	0.41	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08			

G	3.9	1.77	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	0.60	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	0.04	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 702 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

S SECTOR BOUNDARY DISTANCE = 4000.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.224E-06	1.262E-06	1.038E-06	9.062E-07	6.875E-07	6.226E-07	5.890E-07
0.005	0.021	0.032	2.248	4.501	16.894	18.058	19.034	38.600	47.425
0.00031	0.00131	0.00201	0.13963	0.27958	1.04931	1.12162	1.18226	2.39751	2.94565
5.437E-07	4.207E-07	3.674E-07	3.534E-07	3.469E-07	3.243E-07	3.208E-07	2.832E-07	2.388E-07	2.082E-07
49.002	63.873	64.549	78.332	78.820	81.561	85.279	85.429	91.288	91.438
3.04362	3.96730	4.00928	4.86532	4.89564	5.06592	5.29684	5.30617	5.67004	5.67937
1.925E-07	1.841E-07	1.415E-07	1.406E-07	1.334E-07	1.301E-07	1.236E-07	1.084E-07	1.003E-07	8.032E-08
94.480	95.343	95.907	96.282	96.507	96.658	96.695	96.733	96.770	97.033
5.86831	5.92195	5.95694	5.98027	5.99426	6.00359	6.00592	6.00826	6.01059	6.02692
6.449E-08	5.407E-08	4.168E-08	3.010E-08	1.806E-08	1.220E-08				
97.446	97.521	97.597	99.362	99.962	100.000				
6.05258	6.05724	6.06190	6.17153	6.20885	6.21119				

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 1.048
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 2.943

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (4) = 4.862
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (5) = 5.293
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (6) = 5.666
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (7) = 5.918

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
1	1	-11.07050	-16.60723	-1.22524
1	2	-13.77855	-16.89560	-1.35015
1	3	-14.34482	-18.52547	-2.21285
1	4	-14.85564	-18.73314	-2.33807
1	5	-14.95230	-29.14655	-8.77772
1	6	-15.24768	-34.20506	-11.97239
1	7	-15.50797	NUMXQ(K) = 7	
		3.206E-06	0.062	1.000
		2.143E-06	0.186	3.000
		1.753E-06	0.311	5.000
		1.312E-06	0.621	10.000
		1.096E-06	0.932	15.000
		9.512E-07	1.242	20.000
		8.453E-07	1.553	25.000
		7.654E-07	1.863	30.000
		7.023E-07	2.174	35.000
		6.507E-07	2.484	40.000
		6.076E-07	2.795	45.000
		5.594E-07	3.106	50.000
		5.090E-07	3.416	55.000
		4.663E-07	3.727	60.000
		4.297E-07	4.037	65.000
		3.979E-07	4.348	70.000
		3.701E-07	4.658	75.000
		3.451E-07	4.969	80.000
		3.221E-07	5.280	85.000
		2.541E-07	5.590	90.000
		1.440E-06	0.5	8.05

ANNUAL AVERAGE = 1.62E-08

K= 1 FIVEXQ(K) = 1.440E-06 FIVEPR(K) = 8.050

FUMIGATION X/Q AT THE BOUNDARY: 1.17E-05

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	9.658E-01	8.311E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
0.376	1.427	5.032	12.967	65.322	97.183	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 704 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE SSW SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	3.6	0.60	4000.	0.	131.		655.0	1000.0	0.0	0.000E+00	0.000E+00	1.334E-07		
A	6.0	0.60	4000.	0.	131.		655.0	1000.0	0.0	0.000E+00	0.000E+00	8.002E-08		
A	8.9	0.26	4000.	0.	131.		655.0	1000.0	0.0	0.000E+00	0.000E+00	5.407E-08		
A	11.6	0.13	4000.	0.	131.		655.0	1000.0	0.0	0.000E+00	0.000E+00	4.168E-08		
B	1.7	0.13	4000.	0.	131.		492.6	497.9	0.0	0.000E+00	0.000E+00	7.434E-07		
B	3.6	1.52	4000.	0.	131.		492.6	497.9	0.0	0.000E+00	0.000E+00	3.469E-07		
B	6.0	0.99	4000.	0.	131.		492.6	497.9	0.0	0.000E+00	0.000E+00	2.082E-07		
B	8.9	0.20	4000.	0.	131.		492.6	497.9	0.0	0.000E+00	0.000E+00	1.406E-07		
B	11.6	0.13	4000.	0.	131.		492.6	497.9	0.0	0.000E+00	0.000E+00	1.084E-07		
C	1.7	0.33	4000.	0.	131.		374.1	216.1	0.0	0.000E+00	0.000E+00	1.942E-06		
C	3.6	1.46	4000.	0.	131.		374.1	216.1	0.0	0.000E+00	0.000E+00	9.062E-07		
C	6.0	1.26	4000.	0.	131.		374.1	216.1	0.0	0.000E+00	0.000E+00	5.437E-07		
C	8.9	0.53	4000.	0.	131.		374.1	216.1	0.0	0.000E+00	0.000E+00	3.674E-07		
C	11.6	0.07	4000.	0.	131.		374.1	216.1	0.0	0.000E+00	0.000E+00	2.832E-07		
C	26.5	0.26	4000.	0.	131.		374.1	216.1	0.0	0.000E+00	0.000E+00	1.236E-07		
D	0.2	0.01	4000.	0.	131.		263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05		
D	1.7	3.84	4000.	0.	131.		263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06		
D	3.6	13.96	4000.	0.	131.		263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06		
D	6.0	23.09	4000.	0.	131.		263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07		
D	8.9	10.19	4000.	0.	131.		263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07		
D	11.6	1.79	4000.	0.	131.		263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07		
D	26.5	0.46	4000.	0.	131.		263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07		
E	0.3	0.02	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06		
E	1.8	2.91	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06		
E	3.9	10.85	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07		
E	6.5	13.30	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07		
E	9.6	2.51	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07		
E	12.5	0.53	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07		
E	28.5	0.07	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08		
F	0.3	0.01	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06		
F	1.8	1.26	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07		
F	3.9	2.51	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07		
F	6.5	1.65	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07		
F	9.6	0.07	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07		

G	1.8	0.93	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	1.26	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	0.33	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 706 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

SSW SECTOR BOUNDARY DISTANCE = 4000.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.224E-06	1.942E-06	1.262E-06	1.038E-06	9.062E-07	7.434E-07	6.875E-07
0.009	0.029	0.044	3.881	4.211	7.122	21.080	22.536	22.668	23.925
0.00031	0.00104	0.00155	0.13683	0.14850	0.25113	0.74329	0.79461	0.79927	0.84359
6.226E-07	5.890E-07	5.437E-07	4.207E-07	3.674E-07	3.534E-07	3.469E-07	3.243E-07	3.208E-07	2.832E-07
47.012	57.861	59.118	69.305	69.835	83.131	84.653	86.439	88.953	89.019
1.65764	2.04017	2.08449	2.44370	2.46236	2.93120	2.98485	3.04782	3.13646	3.13879
2.388E-07	2.082E-07	1.925E-07	1.841E-07	1.415E-07	1.406E-07	1.334E-07	1.301E-07	1.236E-07	1.084E-07
91.533	92.525	94.179	94.708	95.171	95.369	95.965	96.031	96.295	96.428
3.22743	3.26242	3.32073	3.33939	3.35572	3.36272	3.38371	3.38604	3.39537	3.40004
8.032E-08	8.002E-08	6.449E-08	5.407E-08	4.168E-08	3.010E-08	1.806E-08			
96.494	97.089	98.015	98.280	98.412	99.669	100.000			
3.40237	3.42336	3.45602	3.46535	3.47001	3.51433	3.52599			

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.137
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 0.742

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (4)= 2.038
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (5)= 2.982
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (6)= 3.134
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (7)= 3.336

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
2	1	-11.07050	-16.83622	-1.27489
2	2	-13.01641	-17.09323	-1.36067
2	3	-13.77855	-17.31472	-1.45159
2	4	-14.34482	-21.00876	-3.25712
2	5	-14.87415	-21.58800	-3.56467
2	6	-14.95230	-51.87828	-19.83645
2	7	-15.50797	NUMXQ(K)= 7	
		3.663E-06	0.035	1.000
		2.455E-06	0.106	3.000
		1.999E-06	0.176	5.000
		1.475E-06	0.353	10.000
		1.223E-06	0.529	15.000
		1.065E-06	0.705	20.000
		9.479E-07	0.881	25.000
		8.587E-07	1.058	30.000
		7.884E-07	1.234	35.000
		7.311E-07	1.410	40.000
		6.832E-07	1.587	45.000
		6.425E-07	1.763	50.000
		6.072E-07	1.939	55.000
		5.608E-07	2.116	60.000
		5.027E-07	2.292	65.000
		4.538E-07	2.468	70.000
		4.120E-07	2.644	75.000
		3.761E-07	2.821	80.000
		3.447E-07	2.997	85.000
		2.894E-07	3.173	90.000
		1.256E-06	0.5	14.18

ANNUAL AVERAGE = 1.11E-08

K= 2 FIVEXQ(K)= 1.256E-06 FIVEPR(K)=14.180

FUMIGATION X/Q AT THE BOUNDARY: 1.17E-05

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	9.658E-01	8.311E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
1.588	4.565	8.467	13.973	67.300	97.486	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 708 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE SW SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN HT	EFF PLUME HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS						CA=1292.SQ.METERS					
A	3.6	1.73	4000.	0.	131.	655.0	1000.0	0.0	0.000E+00	0.000E+00	1.334E-07
A	6.0	1.50	4000.	0.	131.	655.0	1000.0	0.0	0.000E+00	0.000E+00	8.002E-08
A	8.9	0.68	4000.	0.	131.	655.0	1000.0	0.0	0.000E+00	0.000E+00	5.407E-08
B	1.7	0.15	4000.	0.	131.	492.6	497.9	0.0	0.000E+00	0.000E+00	7.434E-07
B	3.6	1.35	4000.	0.	131.	492.6	497.9	0.0	0.000E+00	0.000E+00	3.469E-07
B	6.0	0.98	4000.	0.	131.	492.6	497.9	0.0	0.000E+00	0.000E+00	2.082E-07
B	8.9	0.15	4000.	0.	131.	492.6	497.9	0.0	0.000E+00	0.000E+00	1.406E-07
B	11.6	0.08	4000.	0.	131.	492.6	497.9	0.0	0.000E+00	0.000E+00	1.084E-07
C	1.7	0.90	4000.	0.	131.	374.1	216.1	0.0	0.000E+00	0.000E+00	1.942E-06
C	3.6	2.10	4000.	0.	131.	374.1	216.1	0.0	0.000E+00	0.000E+00	9.062E-07
C	6.0	0.68	4000.	0.	131.	374.1	216.1	0.0	0.000E+00	0.000E+00	5.437E-07
C	8.9	0.30	4000.	0.	131.	374.1	216.1	0.0	0.000E+00	0.000E+00	3.674E-07
D	0.2	0.02	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05
D	1.7	8.10	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06
D	3.6	17.86	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06
D	6.0	18.83	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07
D	8.9	6.38	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07
D	11.6	0.98	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07
D	26.5	0.90	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07
E	0.3	0.02	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06
E	1.8	2.70	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06
E	3.9	11.25	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07
E	6.5	11.71	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07
E	9.6	1.95	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07
E	12.5	0.60	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07
E	28.5	0.08	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08
F	0.3	0.02	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06
F	1.8	1.65	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07
F	3.9	2.55	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07
F	6.5	0.98	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07
F	9.6	0.08	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07
G	1.8	0.83	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	1.65	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08

G	6.5	0.30	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
---	-----	------	--------	----	------	--------	------	-----	-----------	-----------	-----------

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 710 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1 96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

SW SECTOR BOUNDARY DISTANCE = 4000.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.224E-06	1.942E-06	1.262E-06	1.038E-06	9.062E-07	7.434E-07	6.875E-07
0.018	0.038	0.057	8.160	9.060	11.762	29.619	31.720	31.870	33.521
0.00057	0.00117	0.00176	0.25367	0.28166	0.36563	0.92077	0.98608	0.99075	1.04206
6.226E-07	5.890E-07	5.437E-07	4.207E-07	3.674E-07	3.534E-07	3.469E-07	3.243E-07	3.208E-07	2.388E-07
52.354	63.609	64.284	70.662	70.962	82.667	84.018	84.993	87.545	89.495
1.62753	1.97741	1.99840	2.19666	2.20599	2.56987	2.61185	2.64218	2.72148	2.78213
2.082E-07	1.925E-07	1.841E-07	1.415E-07	1.406E-07	1.334E-07	1.301E-07	1.084E-07	8.032E-08	8.002E-08
90.471	91.446	92.047	92.947	93.097	94.823	94.898	94.973	95.048	96.549
2.81245	2.84277	2.86143	2.88942	2.89409	2.94774	2.95007	2.95240	2.95474	3.00139
6.449E-08	5.407E-08	3.010E-08	1.806E-08						
97.374	98.049	99.700	100.000						
3.02704	3.04804	3.09935	3.10868						

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE (2) =	0.253
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE (3) =	0.920

Calculation No. PM-1055 Revision 0

Attachment J

Page 711 of 1411

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 1.975
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 2.719
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(6)= 2.945

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
3	1	-11.07050	-16.45404	-1.22654
3	2	-13.01641	-17.81539	-1.71227
3	3	-13.77855	-18.24778	-1.89567
3	4	-14.34482	-23.60605	-4.49819
3	5	-14.95230	-63.37848	-25.17179
3	6	-15.83020	NUMXQ(K)= 6	

4.753E-06	0.031	1.000
3.246E-06	0.093	3.000
2.687E-06	0.155	5.000
1.985E-06	0.311	10.000
1.572E-06	0.466	15.000
1.324E-06	0.622	20.000
1.154E-06	0.777	25.000
1.028E-06	0.933	30.000
9.215E-07	1.088	35.000
8.364E-07	1.243	40.000
7.668E-07	1.399	45.000
7.086E-07	1.554	50.000
6.591E-07	1.710	55.000
6.164E-07	1.865	60.000
5.658E-07	2.021	65.000
4.925E-07	2.176	70.000
4.322E-07	2.332	75.000
3.820E-07	2.487	80.000
3.398E-07	2.642	85.000
2.370E-07	2.798	90.000
1.509E-06	0.5	16.08

ANNUAL AVERAGE = 1.25E-08

K= 3 FIVEXQ(K)= 1.509E-06 FIVEPR(K)=16.084

FUMIGATION X/Q AT THE BOUNDARY: 1.17E-05

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	9.658E-01	8.311E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
3.902	6.603	10.580	15.851	68.917	97.224	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 712 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE WSW SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	3.6	2.58	4000.	0.	131.		655.0	1000.0	0.0	0.000E+00	0.000E+00	1.334E-07		
A	6.0	1.92	4000.	0.	131.		655.0	1000.0	0.0	0.000E+00	0.000E+00	8.002E-08		
A	8.9	1.19	4000.	0.	131.		655.0	1000.0	0.0	0.000E+00	0.000E+00	5.407E-08		
A	11.6	0.07	4000.	0.	131.		655.0	1000.0	0.0	0.000E+00	0.000E+00	4.168E-08		
B	1.7	0.59	4000.	0.	131.		492.6	497.9	0.0	0.000E+00	0.000E+00	7.434E-07		
B	3.6	1.65	4000.	0.	131.		492.6	497.9	0.0	0.000E+00	0.000E+00	3.469E-07		
B	6.0	0.99	4000.	0.	131.		492.6	497.9	0.0	0.000E+00	0.000E+00	2.082E-07		
B	8.9	0.07	4000.	0.	131.		492.6	497.9	0.0	0.000E+00	0.000E+00	1.406E-07		
C	1.7	0.99	4000.	0.	131.		374.1	216.1	0.0	0.000E+00	0.000E+00	1.942E-06		
C	3.6	2.44	4000.	0.	131.		374.1	216.1	0.0	0.000E+00	0.000E+00	9.062E-07		
C	6.0	1.12	4000.	0.	131.		374.1	216.1	0.0	0.000E+00	0.000E+00	5.437E-07		
C	8.9	0.20	4000.	0.	131.		374.1	216.1	0.0	0.000E+00	0.000E+00	3.674E-07		
D	0.2	0.02	4000.	0.	131.		263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05		
D	1.7	7.86	4000.	0.	131.		263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06		
D	3.6	22.19	4000.	0.	131.		263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06		
D	6.0	18.36	4000.	0.	131.		263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07		
D	8.9	4.43	4000.	0.	131.		263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07		
D	11.6	0.73	4000.	0.	131.		263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07		
D	26.5	0.13	4000.	0.	131.		263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07		
E	0.3	0.03	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06		
E	1.8	4.03	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06		
E	3.9	14.46	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07		
E	6.5	6.67	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07		
E	9.6	0.73	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07		
E	12.5	0.26	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07		
E	28.5	0.07	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08		
F	0.3	0.02	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06		
F	1.8	1.72	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07		
F	3.9	1.92	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07		
F	6.5	0.53	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07		
G	1.8	0.66	90000.	0.	131.		1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08		
G	3.9	1.25	90000.	0.	131.		1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08		
G	6.5	0.13	90000.	0.	131.		1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08		

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 713 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

WSW SECTOR BOUNDARY DISTANCE = 4000.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.
THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.
THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.224E-06	1.942E-06	1.262E-06	1.038E-06	9.062E-07	7.434E-07	6.875E-07
0.018	0.046	0.066	7.926	8.917	12.946	35.139	37.583	38.177	39.894
0.00063	0.00164	0.00234	0.27991	0.31490	0.45718	1.24091	1.32721	1.34821	1.40885
6.226E-07	5.890E-07	5.437E-07	4.207E-07	3.674E-07	3.534E-07	3.469E-07	3.243E-07	3.208E-07	2.388E-07
58.256	72.721	73.844	78.270	78.468	85.139	86.790	87.517	89.432	90.159
2.05729	2.56812	2.60777	2.76405	2.77105	3.00663	3.06494	3.09060	3.15825	3.18390
2.082E-07	1.925E-07	1.841E-07	1.415E-07	1.406E-07	1.334E-07	8.032E-08	8.002E-08	6.449E-08	5.407E-08
91.149	91.678	91.942	92.074	92.140	94.716	94.782	96.697	97.358	98.547
3.21889	3.23755	3.24688	3.25155	3.25388	3.34485	3.34718	3.41482	3.43815	3.48013
4.168E-08	3.010E-08	1.806E-08							
98.613	99.868	100.000							
3.48247	3.52678	3.53145							

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (2) = 0.280
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (3) = 1.239

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 2.566
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 3.155
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(6)= 3.342

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
4	1	-11.07050	-16.39203	-1.21828
4	2	-13.01641	-17.03007	-1.44855
4	3	-13.77855	-18.07572	-1.91439
4	4	-14.34482	-27.43738	-6.71803
4	5	-14.95230	-78.51459	-34.20189
4	6	-15.83020	NUMXQ(K)= 6	
		4.712E-06	0.035	1.000
		3.215E-06	0.106	3.000
		2.659E-06	0.177	5.000
		1.990E-06	0.353	10.000
		1.629E-06	0.530	15.000
		1.406E-06	0.706	20.000
		1.250E-06	0.883	25.000
		1.132E-06	1.059	30.000
		1.040E-06	1.236	35.000
		9.421E-07	1.413	40.000
		8.616E-07	1.589	45.000
		7.945E-07	1.766	50.000
		7.374E-07	1.942	55.000
		6.883E-07	2.119	60.000
		6.455E-07	2.295	65.000
		6.077E-07	2.472	70.000
		5.387E-07	2.649	75.000
		4.463E-07	2.825	80.000
		3.732E-07	3.002	85.000
		2.914E-07	3.178	90.000
		1.677E-06	0.5	14.16

ANNUAL AVERAGE = 1.54E-08

K= 4 FIVEXQ(K)= 1.677E-06 FIVEPR(K)=14.158

FUMIGATION X/Q AT THE BOUNDARY: 1.17E-05

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	9.658E-01	8.311E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
5.746	9.049	13.804	17.985	71.702	97.952	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 715 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE W SECTOR.

CLASS	METER/SEC	FREQUENCY PERCENT	DISTANCE METERS	TERRAIN METERS	HT EFF METERS	PLUME HT METERS	SIGMA-Y METERS	SIGMA-Z METERS	MEANDER-SY METERS	** CHI/Q VALUES (SEC/CUBIC METER)	MEANDER	BLDG WAKE	USED
AT 131.4 METERS										CA=1292.SQ.METERS			
A	1.7	0.15	4000.	0.	131.	655.0	1000.0	0.0	0.000E+00	0.000E+00	2.858E-07		
A	3.6	4.26	4000.	0.	131.	655.0	1000.0	0.0	0.000E+00	0.000E+00	1.334E-07		
A	6.0	2.25	4000.	0.	131.	655.0	1000.0	0.0	0.000E+00	0.000E+00	8.002E-08		
A	8.9	0.34	4000.	0.	131.	655.0	1000.0	0.0	0.000E+00	0.000E+00	5.407E-08		
B	1.7	0.24	4000.	0.	131.	492.6	497.9	0.0	0.000E+00	0.000E+00	7.434E-07		
B	3.6	2.74	4000.	0.	131.	492.6	497.9	0.0	0.000E+00	0.000E+00	3.469E-07		
B	6.0	0.59	4000.	0.	131.	492.6	497.9	0.0	0.000E+00	0.000E+00	2.082E-07		
B	8.9	0.05	4000.	0.	131.	492.6	497.9	0.0	0.000E+00	0.000E+00	1.406E-07		
C	1.7	0.05	4000.	0.	131.	374.1	216.1	0.0	0.000E+00	0.000E+00	1.942E-06		
C	3.6	2.45	4000.	0.	131.	374.1	216.1	0.0	0.000E+00	0.000E+00	9.062E-07		
C	6.0	0.68	4000.	0.	131.	374.1	216.1	0.0	0.000E+00	0.000E+00	5.437E-07		
C	8.9	0.15	4000.	0.	131.	374.1	216.1	0.0	0.000E+00	0.000E+00	3.674E-07		
C	11.6	0.05	4000.	0.	131.	374.1	216.1	0.0	0.000E+00	0.000E+00	2.832E-07		
D	0.2	0.01	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05		
D	1.7	5.63	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06		
D	3.6	21.28	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06		
D	6.0	16.19	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07		
D	8.9	6.46	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07		
D	11.6	1.57	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07		
D	26.5	0.39	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07		
E	0.3	0.02	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06		
E	1.8	2.94	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06		
E	3.9	13.85	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07		
E	6.5	7.88	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07		
E	9.6	2.84	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07		
E	12.5	0.59	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07		
E	28.5	0.98	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08		
F	0.3	0.02	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06		
F	1.8	1.52	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07		
F	3.9	1.66	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07		
F	6.5	0.64	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07		
F	28.5	0.20	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.375E-08		
G	1.8	0.64	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08		

G	3.9	0.64	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	0.10	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 717 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

W SECTOR BOUNDARY DISTANCE = 4000.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.
THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.
THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.224E-06	1.942E-06	1.262E-06	1.038E-06	9.062E-07	7.434E-07	6.875E-07
0.013	0.034	0.051	5.677	5.726	8.661	29.943	32.389	32.634	34.150
0.00061	0.00160	0.00244	0.27068	0.27301	0.41296	1.42761	1.54424	1.55590	1.62821
6.226E-07	5.890E-07	5.437E-07	4.207E-07	3.674E-07	3.534E-07	3.469E-07	3.243E-07	3.208E-07	2.858E-07
50.344	64.189	64.874	71.331	71.478	79.355	82.094	83.660	85.323	85.470
2.40027	3.06038	3.09303	3.40093	3.40792	3.78346	3.91408	3.98872	4.06803	4.07502
2.832E-07	2.388E-07	2.082E-07	1.925E-07	1.841E-07	1.415E-07	1.406E-07	1.334E-07	8.032E-08	8.002E-08
85.519	88.356	88.943	89.579	90.167	90.558	90.607	94.863	95.842	98.092
4.07736	4.21264	4.24063	4.27096	4.29895	4.31761	4.31994	4.52287	4.56952	4.67682
6.449E-08	5.407E-08	4.375E-08	3.010E-08	1.806E-08					
98.728	99.070	99.266	99.902	100.000					
4.70714	4.72347	4.73280	4.76312	4.76779					

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.270
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 1.426

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 3.057
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 4.065
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(6)= 4.519

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
5	1	-11.07050	-16.41263	-1.22091
5	2	-13.01641	-16.59972	-1.28817
5	3	-13.77855	-17.68273	-1.78268
5	4	-14.34482	-23.15024	-4.70272
5	5	-14.95230	-45.63967	-17.60370
5	6	-15.83020	NUMXQ(K)= 6	
		4.208E-06	0.048	1.000
		2.842E-06	0.143	3.000
		2.338E-06	0.238	5.000
		1.743E-06	0.477	10.000
		1.450E-06	0.715	15.000
		1.266E-06	0.954	20.000
		1.136E-06	1.192	25.000
		1.036E-06	1.430	30.000
		9.290E-07	1.669	35.000
		8.434E-07	1.907	40.000
		7.732E-07	2.146	45.000
		7.144E-07	2.384	50.000
		6.643E-07	2.622	55.000
		6.210E-07	2.861	60.000
		5.738E-07	3.099	65.000
		4.911E-07	3.337	70.000
		4.241E-07	3.576	75.000
		3.692E-07	3.814	80.000
		3.235E-07	4.053	85.000
		2.067E-07	4.291	90.000
		1.706E-06	0.5	10.49

ANNUAL AVERAGE = 1.77E-08

K= 5 FIVEXQ(K)= 1.706E-06 FIVEPR(K)=10.487

FUMIGATION X/Q AT THE BOUNDARY: 1.17E-05

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	9.658E-01	8.311E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
6.996	10.616	13.992	18.021	69.549	98.630	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 719 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1 96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE WNW SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	3.6	2.40	4000.	0.	131.	655.0	1000.0	0.0	0.000E+00	0.000E+00	1.334E-07			
A	6.0	2.40	4000.	0.	131.	655.0	1000.0	0.0	0.000E+00	0.000E+00	8.002E-08			
A	8.9	0.16	4000.	0.	131.	655.0	1000.0	0.0	0.000E+00	0.000E+00	5.407E-08			
A	11.6	0.05	4000.	0.	131.	655.0	1000.0	0.0	0.000E+00	0.000E+00	4.168E-08			
A	26.5	0.05	4000.	0.	131.	655.0	1000.0	0.0	0.000E+00	0.000E+00	1.819E-08			
B	3.6	1.58	4000.	0.	131.	492.6	497.9	0.0	0.000E+00	0.000E+00	3.469E-07			
B	6.0	1.36	4000.	0.	131.	492.6	497.9	0.0	0.000E+00	0.000E+00	2.082E-07			
B	8.9	0.11	4000.	0.	131.	492.6	497.9	0.0	0.000E+00	0.000E+00	1.406E-07			
B	11.6	0.05	4000.	0.	131.	492.6	497.9	0.0	0.000E+00	0.000E+00	1.084E-07			
C	3.6	3.54	4000.	0.	131.	374.1	216.1	0.0	0.000E+00	0.000E+00	9.062E-07			
C	6.0	1.42	4000.	0.	131.	374.1	216.1	0.0	0.000E+00	0.000E+00	5.437E-07			
C	8.9	0.22	4000.	0.	131.	374.1	216.1	0.0	0.000E+00	0.000E+00	3.674E-07			
C	11.6	0.11	4000.	0.	131.	374.1	216.1	0.0	0.000E+00	0.000E+00	2.832E-07			
D	0.2	0.01	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05			
D	1.7	4.69	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06			
D	3.6	16.58	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06			
D	6.0	16.79	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07			
D	8.9	7.63	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07			
D	11.6	1.42	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07			
D	26.5	0.11	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07			
E	0.3	0.02	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06			
E	1.8	3.27	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06			
E	3.9	10.91	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07			
E	6.5	14.01	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07			
E	9.6	3.44	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07			
E	12.5	1.15	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07			
E	28.5	0.22	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08			
F	0.3	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06			
F	1.8	1.25	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07			
F	3.9	2.84	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07			
F	6.5	1.31	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07			
F	9.6	0.11	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07			
F	28.5	0.05	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.375E-08			

G	1.8	0.27	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	0.33	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	0.11	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 721 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

WNW SECTOR BOUNDARY DISTANCE = 4000.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.224E-06	1.262E-06	1.038E-06	9.062E-07	6.875E-07	6.226E-07	5.890E-07
0.011	0.034	0.048	4.738	8.010	24.586	28.131	29.385	46.180	57.086
0.00045	0.00145	0.00207	0.20267	0.34262	1.05170	1.20332	1.25697	1.97538	2.44189
5.437E-07	4.207E-07	3.674E-07	3.534E-07	3.469E-07	3.243E-07	3.208E-07	2.832E-07	2.388E-07	2.082E-07
58.503	66.137	66.356	80.370	81.951	83.369	86.204	86.313	89.749	91.112
2.50254	2.82909	2.83842	3.43788	3.50552	3.56617	3.68746	3.69212	3.83907	3.89738
1.925E-07	1.841E-07	1.415E-07	1.406E-07	1.334E-07	1.301E-07	1.084E-07	8.032E-08	8.002E-08	6.449E-08
92.420	93.566	93.675	93.784	96.183	96.292	96.347	96.565	98.964	99.237
3.95337	4.00235	4.00701	4.01168	4.11431	4.11897	4.12131	4.13064	4.23327	4.24493
5.407E-08	4.375E-08	4.168E-08	3.010E-08	1.819E-08	1.806E-08				
99.400	99.455	99.509	99.836	99.891	100.000				
4.25193	4.25426	4.25659	4.27059	4.27292	4.27759				

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (2)= 0.202

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (3)= 1.050

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (4)= 2.439
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (5)= 3.502
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (6)= 3.684
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (7)= 3.999
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (8)= 4.111

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
6	1	-11.07050	-16.59230	-1.24408
6	2	-13.01641	-16.88327	-1.34531
6	3	-13.77855	-17.65210	-1.67845
6	4	-14.34482	-20.91147	-3.33259
6	5	-14.87415	-21.02014	-3.39257
6	6	-14.95230	-41.27074	-14.71482
6	7	-15.50797	-59.43034	-25.08697
6	8	-15.83020	NUMXQ(K)= 8	
		3.941E-06	0.043	1.000
		2.651E-06	0.128	3.000
		2.173E-06	0.214	5.000
		1.600E-06	0.428	10.000
		1.324E-06	0.642	15.000
		1.151E-06	0.856	20.000
		1.027E-06	1.069	25.000
		9.132E-07	1.283	30.000
		8.251E-07	1.497	35.000
		7.544E-07	1.711	40.000
		6.961E-07	1.925	45.000
		6.469E-07	2.139	50.000
		6.049E-07	2.353	55.000
		5.486E-07	2.567	60.000
		4.889E-07	2.780	65.000
		4.387E-07	2.994	70.000
		3.962E-07	3.208	75.000
		3.598E-07	3.422	80.000
		3.279E-07	3.636	85.000
		2.398E-07	3.850	90.000
		1.489E-06	0.5	11.69

ANNUAL AVERAGE = 1.43E-08

K= 6 FIVEXQ(K)= 1.489E-06 FIVEPR(K)=11.689

FUMIGATION X/Q AT THE BOUNDARY: 1.17E-05

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	9.658E-01	8.311E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
5.071	8.179	13.469	19.045	66.278	99.291	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 723 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1 96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE NW SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN HT	EFF PLUME HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS						CA=1292.SQ.METERS					
A	3.6	0.17	4000.	0.	131.	655.0	1000.0	0.0	0.000E+00	0.000E+00	1.334E-07
A	6.0	0.87	4000.	0.	131.	655.0	1000.0	0.0	0.000E+00	0.000E+00	8.002E-08
A	8.9	0.56	4000.	0.	131.	655.0	1000.0	0.0	0.000E+00	0.000E+00	5.407E-08
B	1.7	0.09	4000.	0.	131.	492.6	497.9	0.0	0.000E+00	0.000E+00	7.434E-07
B	3.6	0.43	4000.	0.	131.	492.6	497.9	0.0	0.000E+00	0.000E+00	3.469E-07
B	6.0	1.17	4000.	0.	131.	492.6	497.9	0.0	0.000E+00	0.000E+00	2.082E-07
B	8.9	0.35	4000.	0.	131.	492.6	497.9	0.0	0.000E+00	0.000E+00	1.406E-07
B	11.6	0.04	4000.	0.	131.	492.6	497.9	0.0	0.000E+00	0.000E+00	1.084E-07
C	3.6	0.61	4000.	0.	131.	374.1	216.1	0.0	0.000E+00	0.000E+00	9.062E-07
C	6.0	2.69	4000.	0.	131.	374.1	216.1	0.0	0.000E+00	0.000E+00	5.437E-07
C	8.9	0.48	4000.	0.	131.	374.1	216.1	0.0	0.000E+00	0.000E+00	3.674E-07
D	0.2	0.00	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05
D	1.7	1.95	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06
D	3.6	14.72	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06
D	6.0	20.76	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07
D	8.9	6.99	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07
D	11.6	0.61	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07
D	26.5	0.30	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07
E	0.3	0.02	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06
E	1.8	2.65	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06
E	3.9	14.98	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07
E	6.5	15.16	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07
E	9.6	4.26	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07
E	12.5	0.69	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07
E	28.5	0.52	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08
F	0.3	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06
F	1.8	1.22	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07
F	3.9	3.52	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07
F	6.5	2.08	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07
F	9.6	0.30	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07
G	1.8	0.17	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	1.22	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	0.35	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08

G	9.6	0.04	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08
---	-----	------	--------	----	------	--------	------	-----	-----------	-----------	-----------

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 725 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

NW SECTOR BOUNDARY DISTANCE = 4000.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.224E-06	1.262E-06	1.038E-06	9.062E-07	7.434E-07	6.875E-07	6.226E-07
0.004	0.023	0.037	1.991	4.640	19.361	19.969	20.056	21.272	42.029
0.00024	0.00125	0.00200	0.10697	0.24925	1.03998	1.07263	1.07730	1.14261	2.25756
5.890E-07	5.437E-07	4.207E-07	3.674E-07	3.534E-07	3.469E-07	3.243E-07	3.208E-07	2.388E-07	2.082E-07
57.010	59.702	66.694	67.171	82.326	82.761	83.368	86.886	91.141	92.314
3.06228	3.20689	3.58243	3.60809	4.42214	4.44546	4.47812	4.66705	4.89564	4.95862
1.925E-07	1.841E-07	1.415E-07	1.406E-07	1.334E-07	1.301E-07	1.084E-07	8.032E-08	8.002E-08	6.449E-08
94.398	95.093	95.397	95.744	95.918	96.222	96.265	96.787	97.655	97.829
5.07058	5.10790	5.12423	5.14289	5.15222	5.16855	5.17088	5.19887	5.24552	5.25485
5.407E-08	3.010E-08	1.806E-08	1.220E-08						
98.393	99.609	99.957	100.000						
5.28517	5.35048	5.36914	5.37148						

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 1.039
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 3.059

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 4.419
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 4.663
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(6)= 5.104

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
7	1	-11.07050	-16.54423	-1.19621
7	2	-13.77855	-16.75471	-1.28724
7	3	-14.34482	-20.03426	-3.03901
7	4	-14.85564	-21.27771	-3.76871
7	5	-14.95230	-36.36005	-12.75486
7	6	-15.50797	NUMXQ(K) = 6	

3.266E-06	0.054	1.000
2.215E-06	0.161	3.000
1.825E-06	0.269	5.000
1.382E-06	0.537	10.000
1.162E-06	0.806	15.000
1.021E-06	1.074	20.000
9.147E-07	1.343	25.000
8.337E-07	1.611	30.000
7.693E-07	1.880	35.000
7.166E-07	2.149	40.000
6.722E-07	2.417	45.000
6.342E-07	2.686	50.000
6.011E-07	2.954	55.000
5.497E-07	3.223	60.000
4.928E-07	3.491	65.000
4.447E-07	3.760	70.000
4.036E-07	4.029	75.000
3.682E-07	4.297	80.000
3.338E-07	4.566	85.000
2.586E-07	4.834	90.000
1.423E-06	0.5	9.31

ANNUAL AVERAGE = 1.43E-08

K= 7 FIVEXQ(K)= 1.423E-06 FIVEPR(K)= 9.308

FUMIGATION X/Q AT THE BOUNDARY: 1.17E-05

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	9.658E-01	8.311E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
1.607	3.691	7.469	14.605	59.944	98.220	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 727 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE NNW SECTOR.

STABILITY CLASS	WINDSPEED METER/SEC	FREQUENCY PERCENT	DISTANCE METERS	TERRAIN METERS	HT METERS	EFF PLUME METERS	SIGMA-Y METERS	SIGMA-Z METERS	MEANDER-SY METERS	** CHI/Q VALUES (SEC/CUBIC METER)		
										MEANDER	BLDG WAKE	USED
AT 131.4 METERS										CA=1292.SQ.METERS		
A	3.6	0.09	4000.	0.	131.	131.	655.0	1000.0	0.0	0.000E+00	0.000E+00	1.334E-07
A	6.0	0.09	4000.	0.	131.	131.	655.0	1000.0	0.0	0.000E+00	0.000E+00	8.002E-08
B	3.6	0.14	4000.	0.	131.	131.	492.6	497.9	0.0	0.000E+00	0.000E+00	3.469E-07
B	6.0	0.37	4000.	0.	131.	131.	492.6	497.9	0.0	0.000E+00	0.000E+00	2.082E-07
B	8.9	0.37	4000.	0.	131.	131.	492.6	497.9	0.0	0.000E+00	0.000E+00	1.406E-07
B	11.6	0.05	4000.	0.	131.	131.	492.6	497.9	0.0	0.000E+00	0.000E+00	1.084E-07
C	3.6	0.55	4000.	0.	131.	131.	374.1	216.1	0.0	0.000E+00	0.000E+00	9.062E-07
C	6.0	1.01	4000.	0.	131.	131.	374.1	216.1	0.0	0.000E+00	0.000E+00	5.437E-07
C	8.9	0.46	4000.	0.	131.	131.	374.1	216.1	0.0	0.000E+00	0.000E+00	3.674E-07
C	11.6	0.05	4000.	0.	131.	131.	374.1	216.1	0.0	0.000E+00	0.000E+00	2.832E-07
D	0.2	0.00	4000.	0.	131.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05
D	1.7	1.61	4000.	0.	131.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06
D	3.6	11.17	4000.	0.	131.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06
D	6.0	21.42	4000.	0.	131.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07
D	8.9	5.42	4000.	0.	131.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07
D	11.6	0.51	4000.	0.	131.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07
D	26.5	0.32	4000.	0.	131.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07
E	0.3	0.02	9000.	0.	131.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06
E	1.8	2.71	9000.	0.	131.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06
E	3.9	14.29	9000.	0.	131.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07
E	6.5	20.36	9000.	0.	131.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07
E	9.6	7.58	9000.	0.	131.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07
E	12.5	0.51	9000.	0.	131.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07
E	28.5	0.09	9000.	0.	131.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08
F	0.3	0.02	90000.	0.	131.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06
F	1.8	1.47	90000.	0.	131.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07
F	3.9	4.14	90000.	0.	131.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07
F	6.5	3.63	90000.	0.	131.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07
F	9.6	0.37	90000.	0.	131.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07
G	1.8	0.41	90000.	0.	131.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	0.46	90000.	0.	131.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	0.28	90000.	0.	131.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	0.05	90000.	0.	131.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 728 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

NNW SECTOR BOUNDARY DISTANCE = 4000.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.224E-06	1.262E-06	1.038E-06	9.062E-07	6.875E-07	6.226E-07	5.890E-07
0.004	0.023	0.040	1.648	4.360	15.528	16.079	17.550	38.967	53.260
0.00018	0.00116	0.00203	0.08366	0.22128	0.78809	0.81608	0.89072	1.97767	2.70309
5.437E-07	4.207E-07	3.674E-07	3.534E-07	3.469E-07	3.243E-07	3.208E-07	2.832E-07	2.388E-07	2.082E-07
54.271	59.694	60.154	80.514	80.651	81.157	85.293	85.339	92.922	93.290
2.75441	3.02964	3.05297	4.08628	4.09327	4.11893	4.32886	4.33119	4.71606	4.73472
1.925E-07	1.841E-07	1.415E-07	1.406E-07	1.334E-07	1.301E-07	1.084E-07	8.032E-08	8.002E-08	6.449E-08
96.921	97.426	97.748	98.116	98.208	98.575	98.621	98.713	98.805	99.219
4.91899	4.94465	4.96097	4.97963	4.98430	5.00296	5.00529	5.00996	5.01462	5.03561
3.010E-08	1.806E-08	1.220E-08							
99.678	99.954	100.000							
5.05894	5.07293	5.07527							

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (2) = 2.700
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (3) = 4.083

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 4.325
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 4.712

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
8	1	-11.07050	-16.68017	-1.21206
8	2	-14.34482	-19.64730	-2.75201
8	3	-14.85564	-21.08134	-3.57563
8	4	-14.95230	-27.38730	-7.25447
8	5	-15.24768	NUMXQ(K)= 5	
		3.061E-06	0.051	1.000
		2.069E-06	0.152	3.000
		1.703E-06	0.254	5.000
		1.286E-06	0.508	10.000
		1.081E-06	0.761	15.000
		9.500E-07	1.015	20.000
		8.569E-07	1.269	25.000
		7.858E-07	1.523	30.000
		7.290E-07	1.776	35.000
		6.823E-07	2.030	40.000
		6.427E-07	2.284	45.000
		6.088E-07	2.538	50.000
		5.668E-07	2.791	55.000
		5.103E-07	3.045	60.000
		4.626E-07	3.299	65.000
		4.219E-07	3.553	70.000
		3.868E-07	3.806	75.000
		3.563E-07	4.060	80.000
		3.227E-07	4.314	85.000
		2.668E-07	4.568	90.000
		1.294E-06	0.5	9.85

ANNUAL AVERAGE = 1.17E-08

K= 8 FIVEXQ(K)= 1.294E-06 FIVEPR(K)= 9.852

FUMIGATION X/Q AT THE BOUNDARY: 1.17E-05

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	9.658E-01	8.311E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
0.184	1.103	3.171	12.793	53.241	98.805	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 730 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE N SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	6.0	0.28	4000.	0.	131.	655.0	1000.0	0.0	0.000E+00	0.000E+00	8.002E-08			
A	8.9	0.16	4000.	0.	131.	655.0	1000.0	0.0	0.000E+00	0.000E+00	5.407E-08			
B	3.6	0.07	4000.	0.	131.	492.6	497.9	0.0	0.000E+00	0.000E+00	3.469E-07			
B	6.0	0.58	4000.	0.	131.	492.6	497.9	0.0	0.000E+00	0.000E+00	2.082E-07			
B	8.9	0.72	4000.	0.	131.	492.6	497.9	0.0	0.000E+00	0.000E+00	1.406E-07			
B	11.6	0.12	4000.	0.	131.	492.6	497.9	0.0	0.000E+00	0.000E+00	1.084E-07			
B	26.5	0.02	4000.	0.	131.	492.6	497.9	0.0	0.000E+00	0.000E+00	4.731E-08			
C	3.6	0.44	4000.	0.	131.	374.1	216.1	0.0	0.000E+00	0.000E+00	9.062E-07			
C	6.0	1.68	4000.	0.	131.	374.1	216.1	0.0	0.000E+00	0.000E+00	5.437E-07			
C	8.9	1.56	4000.	0.	131.	374.1	216.1	0.0	0.000E+00	0.000E+00	3.674E-07			
C	11.6	0.21	4000.	0.	131.	374.1	216.1	0.0	0.000E+00	0.000E+00	2.832E-07			
C	26.5	0.02	4000.	0.	131.	374.1	216.1	0.0	0.000E+00	0.000E+00	1.236E-07			
D	0.2	0.00	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05			
D	1.7	0.96	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06			
D	3.6	7.00	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06			
D	6.0	16.51	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07			
D	8.9	11.24	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07			
D	11.6	2.31	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07			
D	26.5	0.68	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07			
E	0.3	0.01	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06			
E	1.8	1.63	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06			
E	3.9	10.14	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07			
E	6.5	20.78	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07			
E	9.6	12.03	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07			
E	12.5	1.49	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07			
E	28.5	0.14	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08			
F	0.3	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06			
F	1.8	0.54	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07			
F	3.9	3.13	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07			
F	6.5	3.03	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07			
F	9.6	1.03	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07			
G	1.8	0.40	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08			
G	3.9	0.79	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08			

G	6.5	0.23	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	0.05	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 732 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

N SECTOR BOUNDARY DISTANCE = 4000.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.224E-06	1.262E-06	1.038E-06	9.062E-07	6.875E-07	6.226E-07	5.890E-07
0.002	0.014	0.020	0.976	2.609	9.605	10.048	10.585	27.096	37.241
0.00022	0.00138	0.00200	0.09763	0.26091	0.96067	1.00498	1.05863	2.71006	3.72471
5.437E-07	4.207E-07	3.674E-07	3.534E-07	3.469E-07	3.243E-07	3.208E-07	2.832E-07	2.388E-07	2.082E-07
38.921	50.162	51.724	72.504	72.574	74.883	78.008	78.218	90.252	90.835
3.89265	5.01692	5.17320	7.25148	7.25848	7.48940	7.80196	7.82295	9.02653	9.08485
1.925E-07	1.841E-07	1.415E-07	1.406E-07	1.301E-07	1.236E-07	1.084E-07	8.032E-08	8.002E-08	6.449E-08
93.866	95.359	96.035	96.758	97.784	97.808	97.924	98.064	98.344	98.741
9.38807	9.53736	9.60500	9.67731	9.77994	9.78227	9.79393	9.80793	9.83592	9.87557
5.407E-08	4.731E-08	3.010E-08	1.806E-08	1.220E-08					
98.904	98.927	99.720	99.953	100.000					
9.89190	9.89423	9.97354	9.99686	10.00153					

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 3.721
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 7.248

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (4)= 7.798
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (5)= 9.023
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (6)= 9.534

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
9	1	-11.07050	-16.42253	-1.16466
9	2	-14.34482	-17.13700	-1.56516
9	3	-14.85564	-18.48535	-2.49021
9	4	-14.95230	-20.22770	-3.71827
9	5	-15.24768	-26.57732	-8.45915
9	6	-15.50797	NUMXQ(K) = 6	
		2.698E-06	0.100	1.000
		1.810E-06	0.300	3.000
		1.482E-06	0.500	5.000
		1.108E-06	1.000	10.000
		9.239E-07	1.500	15.000
		8.068E-07	2.000	20.000
		7.233E-07	2.500	25.000
		6.596E-07	3.000	30.000
		6.087E-07	3.501	35.000
		5.594E-07	4.001	40.000
		5.130E-07	4.501	45.000
		4.740E-07	5.001	50.000
		4.406E-07	5.501	55.000
		4.116E-07	6.001	60.000
		3.862E-07	6.501	65.000
		3.637E-07	7.001	70.000
		3.380E-07	7.501	75.000
		3.051E-07	8.001	80.000
		2.700E-07	8.501	85.000
		2.402E-07	9.001	90.000
		1.482E-06	0.5	5.00

ANNUAL AVERAGE = 1.94E-08

K= 9 FIVEXQ(K)= 1.482E-06 FIVEPR(K)= 4.999

FUMIGATION X/Q AT THE BOUNDARY: 1.17E-05

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	9.658E-01	8.311E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
0.443	1.959	5.877	13.603	52.296	98.531	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 734 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE NNE SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER BLDG WAKE USED
AT 131.4 METERS												
CA=1292.SQ.METERS												
A	3.6	0.08	4000.	0.	131.	655.0	1000.0	0.0	0.000E+00	0.000E+00	1.334E-07	
A	6.0	0.28	4000.	0.	131.	655.0	1000.0	0.0	0.000E+00	0.000E+00	8.002E-08	
A	8.9	0.12	4000.	0.	131.	655.0	1000.0	0.0	0.000E+00	0.000E+00	5.407E-08	
B	3.6	0.16	4000.	0.	131.	492.6	497.9	0.0	0.000E+00	0.000E+00	3.469E-07	
B	6.0	0.56	4000.	0.	131.	492.6	497.9	0.0	0.000E+00	0.000E+00	2.082E-07	
B	8.9	0.36	4000.	0.	131.	492.6	497.9	0.0	0.000E+00	0.000E+00	1.406E-07	
B	11.6	0.08	4000.	0.	131.	492.6	497.9	0.0	0.000E+00	0.000E+00	1.084E-07	
C	3.6	0.20	4000.	0.	131.	374.1	216.1	0.0	0.000E+00	0.000E+00	9.062E-07	
C	6.0	1.47	4000.	0.	131.	374.1	216.1	0.0	0.000E+00	0.000E+00	5.437E-07	
C	8.9	0.95	4000.	0.	131.	374.1	216.1	0.0	0.000E+00	0.000E+00	3.674E-07	
D	0.2	0.00	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05	
D	1.7	0.91	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06	
D	3.6	7.60	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06	
D	6.0	16.91	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07	
D	8.9	6.60	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07	
D	11.6	0.64	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07	
D	26.5	0.36	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07	
E	0.3	0.02	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06	
E	1.8	2.23	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06	
E	3.9	12.73	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07	
E	6.5	22.95	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07	
E	9.6	9.07	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07	
E	12.5	0.76	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07	
E	28.5	0.16	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08	
F	0.3	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06	
F	1.8	1.27	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07	
F	3.9	5.61	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07	
F	6.5	4.42	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07	
F	9.6	0.91	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07	
F	12.5	0.12	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.003E-07	
G	1.8	0.36	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08	
G	3.9	1.23	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08	
G	6.5	0.84	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08	

G	9.6	0.04	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08
---	-----	------	--------	----	------	--------	------	-----	-----------	-----------	-----------

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 736 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

NNE SECTOR BOUNDARY DISTANCE = 4000.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED:

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.224E-06	1.262E-06	1.038E-06	9.062E-07	6.875E-07	6.226E-07	5.890E-07
0.002	0.018	0.033	0.948	3.175	10.773	10.972	12.245	29.152	41.881
0.00012	0.00105	0.00191	0.05556	0.18618	0.63169	0.64336	0.71800	1.70932	2.45573
5.437E-07	4.207E-07	3.674E-07	3.534E-07	3.469E-07	3.243E-07	3.208E-07	2.388E-07	2.082E-07	1.925E-07
43.353	49.957	50.911	73.864	74.024	74.660	80.269	89.339	89.896	94.311
2.54203	2.92923	2.98521	4.33108	4.34041	4.37773	4.70661	5.23843	5.27109	5.53000
1.841E-07	1.415E-07	1.406E-07	1.334E-07	1.301E-07	1.084E-07	1.003E-07	8.032E-08	8.002E-08	6.449E-08
95.067	95.425	95.783	95.863	96.778	96.857	96.977	97.136	97.414	97.772
5.57431	5.59531	5.61630	5.62097	5.67461	5.67928	5.68628	5.69561	5.71193	5.73293
5.407E-08	3.010E-08	1.806E-08	1.220E-08						
97.892	99.125	99.960	100.000						
5.73992	5.81223	5.86121	5.86355						

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (2) = 2.453

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (3) = 4.328

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 4.703
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 5.235
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(6)= 5.526

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
10	1	-11.07050	-16.69114	-1.19222
10	2	-14.34482	-18.30038	-2.00991
10	3	-14.85564	-19.04784	-2.44603
10	4	-14.95230	-24.49152	-5.69724
10	5	-15.24768	-28.35438	-8.07802
10	6	-15.46313	NUMXQ(K)= 6	
		2.702E-06	0.059	1.000
		1.830E-06	0.176	3.000
		1.506E-06	0.293	5.000
		1.138E-06	0.586	10.000
		9.563E-07	0.880	15.000
		8.406E-07	1.173	20.000
		7.580E-07	1.466	25.000
		6.949E-07	1.759	30.000
		6.445E-07	2.052	35.000
		6.029E-07	2.345	40.000
		5.536E-07	2.639	45.000
		5.049E-07	2.932	50.000
		4.638E-07	3.225	55.000
		4.287E-07	3.518	60.000
		3.983E-07	3.811	65.000
		3.718E-07	4.104	70.000
		3.472E-07	4.398	75.000
		3.221E-07	4.691	80.000
		2.742E-07	4.984	85.000
		2.319E-07	5.277	90.000
		1.216E-06	0.5	8.53

ANNUAL AVERAGE = 1.09E-08

K= 10 FIVEXQ(K)= 1.216E-06 FIVEPR(K)= 8.527

FUMIGATION X/Q AT THE BOUNDARY: 1.17E-05

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	9.658E-01	8.311E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
0.477	1.631	4.256	16.603	49.623	97.534	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 738 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE NE SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	3.6	0.09	4000.	0.	131.	655.0	1000.0	0.0	0.000E+00	0.000E+00	1.334E-07			
A	6.0	0.23	4000.	0.	131.	655.0	1000.0	0.0	0.000E+00	0.000E+00	8.002E-08			
A	8.9	0.09	4000.	0.	131.	655.0	1000.0	0.0	0.000E+00	0.000E+00	5.407E-08			
B	3.6	0.14	4000.	0.	131.	492.6	497.9	0.0	0.000E+00	0.000E+00	3.469E-07			
B	6.0	0.61	4000.	0.	131.	492.6	497.9	0.0	0.000E+00	0.000E+00	2.082E-07			
B	8.9	0.28	4000.	0.	131.	492.6	497.9	0.0	0.000E+00	0.000E+00	1.406E-07			
B	11.6	0.05	4000.	0.	131.	492.6	497.9	0.0	0.000E+00	0.000E+00	1.084E-07			
C	3.6	0.33	4000.	0.	131.	374.1	216.1	0.0	0.000E+00	0.000E+00	9.062E-07			
C	6.0	1.41	4000.	0.	131.	374.1	216.1	0.0	0.000E+00	0.000E+00	5.437E-07			
C	8.9	0.99	4000.	0.	131.	374.1	216.1	0.0	0.000E+00	0.000E+00	3.674E-07			
C	11.6	0.19	4000.	0.	131.	374.1	216.1	0.0	0.000E+00	0.000E+00	2.832E-07			
C	26.5	0.05	4000.	0.	131.	374.1	216.1	0.0	0.000E+00	0.000E+00	1.236E-07			
D	0.2	0.00	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05			
D	1.7	1.50	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06			
D	3.6	7.28	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06			
D	6.0	13.48	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07			
D	8.9	5.92	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07			
D	11.6	0.75	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07			
D	26.5	0.14	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07			
E	0.3	0.02	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06			
E	1.8	2.77	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06			
E	3.9	13.19	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07			
E	6.5	16.62	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07			
E	9.6	10.14	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07			
E	12.5	0.85	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07			
E	28.5	0.09	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08			
F	0.3	0.02	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06			
F	1.8	1.50	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07			
F	3.9	7.32	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07			
F	6.5	7.37	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07			
F	9.6	1.83	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07			
G	1.8	0.28	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08			
G	3.9	1.69	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08			

G	6.5	2.39	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	0.38	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 740 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

NE SECTOR BOUNDARY DISTANCE = 4000.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.224E-06	1.262E-06	1.038E-06	9.062E-07	6.875E-07	6.226E-07	5.890E-07
0.003	0.023	0.040	1.543	4.313	11.591	11.919	13.422	26.897	40.090
0.00017	0.00115	0.00201	0.07665	0.21427	0.57581	0.59214	0.66678	1.33621	1.99165
5.437E-07	4.207E-07	3.674E-07	3.534E-07	3.469E-07	3.243E-07	3.208E-07	2.832E-07	2.388E-07	2.082E-07
41.499	47.414	48.400	65.021	65.162	65.913	73.238	73.425	83.567	84.177
2.06163	2.35553	2.40451	3.23022	3.23722	3.27454	3.63842	3.64775	4.15157	4.18189
1.925E-07	1.841E-07	1.415E-07	1.406E-07	1.334E-07	1.301E-07	1.236E-07	1.084E-07	8.032E-08	8.002E-08
91.549	92.394	92.535	92.816	92.910	94.741	94.788	94.835	94.929	95.164
4.54810	4.59009	4.59708	4.61108	4.61574	4.70671	4.70904	4.71138	4.71604	4.72770
6.449E-08	5.407E-08	3.010E-08	1.806E-08	1.220E-08					
95.446	95.540	97.230	99.624	100.000					
4.74170	4.74636	4.83034	4.94929	4.96795					

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2) = 1.990

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3) = 3.635

Calculation No. PM-1055 Revision 0

Attachment J

Page 741 of 1411

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 4.148
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 4.545

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
11	1	-11.07050	-16.94310	-1.26381
11	2	-14.34482	-19.12573	-2.32544
11	3	-14.95230	-23.65204	-4.84751
11	4	-15.24768	-23.92830	-5.00685
11	5	-15.46313	NUMXQ(K)= 5	
		2.811E-06	0.050	1.000
		1.870E-06	0.149	3.000
		1.527E-06	0.248	5.000
		1.140E-06	0.497	10.000
		9.512E-07	0.745	15.000
		8.320E-07	0.994	20.000
		7.474E-07	1.242	25.000
		6.830E-07	1.490	30.000
		6.318E-07	1.739	35.000
		5.897E-07	1.987	40.000
		5.267E-07	2.236	45.000
		4.747E-07	2.484	50.000
		4.315E-07	2.732	55.000
		3.950E-07	2.981	60.000
		3.637E-07	3.229	65.000
		3.365E-07	3.478	70.000
		3.044E-07	3.726	75.000
		2.635E-07	3.974	80.000
		2.295E-07	4.223	85.000
		2.005E-07	4.471	90.000
		1.137E-06	0.5	10.06

ANNUAL AVERAGE = 8.98E-09

K= 11 FIVEXQ(K)= 1.137E-06 FIVEPR(K)=10.065

FUMIGATION X/Q AT THE BOUNDARY: 1.17E-05

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	9.658E-01	8.311E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
0.423	1.502	4.460	22.507	51.573	95.258	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 742 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE ENE SECTOR.

STABILITY CLASS	WINDSPEED METER/SEC	FREQUENCY PERCENT	DISTANCE METERS	TERRAIN METERS	HT METERS	EFF. PLUME METERS	SIGMA-Y METERS	SIGMA-Z METERS	MEANDER-SY METERS	** CHI/Q VALUES (SEC/CUBIC METER)		
										MEANDER	BLDG WAKE	USED
AT 131.4 METERS										CA=1292.SQ.METERS		
A	6.0	0.33	4000.	0.	131.	655.0	1000.0	0.0	0.000E+00	0.000E+00	8.002E-08	
A	8.9	0.14	4000.	0.	131.	655.0	1000.0	0.0	0.000E+00	0.000E+00	5.407E-08	
A	11.6	0.09	4000.	0.	131.	655.0	1000.0	0.0	0.000E+00	0.000E+00	4.168E-08	
A	26.5	0.09	4000.	0.	131.	655.0	1000.0	0.0	0.000E+00	0.000E+00	1.819E-08	
B	3.6	0.05	4000.	0.	131.	492.6	497.9	0.0	0.000E+00	0.000E+00	3.469E-07	
B	6.0	0.38	4000.	0.	131.	492.6	497.9	0.0	0.000E+00	0.000E+00	2.082E-07	
B	8.9	0.89	4000.	0.	131.	492.6	497.9	0.0	0.000E+00	0.000E+00	1.406E-07	
B	11.6	0.09	4000.	0.	131.	492.6	497.9	0.0	0.000E+00	0.000E+00	1.084E-07	
B	26.5	0.05	4000.	0.	131.	492.6	497.9	0.0	0.000E+00	0.000E+00	4.731E-08	
C	3.6	0.14	4000.	0.	131.	374.1	216.1	0.0	0.000E+00	0.000E+00	9.062E-07	
C	6.0	1.22	4000.	0.	131.	374.1	216.1	0.0	0.000E+00	0.000E+00	5.437E-07	
C	8.9	1.46	4000.	0.	131.	374.1	216.1	0.0	0.000E+00	0.000E+00	3.674E-07	
C	11.6	0.19	4000.	0.	131.	374.1	216.1	0.0	0.000E+00	0.000E+00	2.832E-07	
C	26.5	0.05	4000.	0.	131.	374.1	216.1	0.0	0.000E+00	0.000E+00	1.236E-07	
D	0.2	0.00	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05	
D	1.7	0.71	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06	
D	3.6	6.02	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06	
D	6.0	9.93	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07	
D	8.9	8.94	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07	
D	11.6	1.03	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07	
D	26.5	0.28	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07	
E	0.3	0.02	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06	
E	1.8	2.54	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06	
E	3.9	8.80	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07	
E	6.5	13.97	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07	
E	9.6	12.75	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07	
E	12.5	1.41	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07	
E	28.5	0.05	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08	
F	0.3	0.02	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06	
F	1.8	1.55	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07	
F	3.9	5.50	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07	
F	6.5	8.33	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07	
F	9.6	5.13	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07	
F	12.5	0.85	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.003E-07	

G	1.8	0.85	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	1.60	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	3.29	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	1.22	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08
G	12.5	0.05	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	9.405E-09

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 744 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

ENE SECTOR BOUNDARY DISTANCE = 4000.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.
THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.
THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.224E-06	1.262E-06	1.038E-06	9.062E-07	6.875E-07	6.226E-07	5.890E-07
0.002	0.020	0.038	0.743	3.283	9.305	9.446	10.998	20.924	29.721
0.00008	0.00098	0.00186	0.03685	0.16281	0.46137	0.46837	0.54534	1.03751	1.47369
5.437E-07	4.207E-07	3.674E-07	3.534E-07	3.469E-07	3.243E-07	3.208E-07	2.832E-07	2.388E-07	2.082E-07
30.944	39.881	41.340	55.311	55.358	56.393	61.897	62.085	74.833	75.209
1.53433	1.97751	2.04982	2.74258	2.74491	2.79623	3.06913	3.07846	3.71058	3.72924
1.925E-07	1.841E-07	1.415E-07	1.406E-07	1.301E-07	1.236E-07	1.084E-07	1.003E-07	8.032E-08	8.002E-08
83.536	84.947	85.229	86.123	91.250	91.297	91.391	92.238	92.285	92.615
4.14210	4.21207	4.22607	4.27038	4.52463	4.52696	4.53163	4.57361	4.57595	4.59227
6.449E-08	5.407E-08	4.731E-08	4.168E-08	3.010E-08	1.819E-08	1.806E-08	1.220E-08	9.405E-09	
93.461	93.602	93.649	93.744	95.343	95.437	98.730	99.953	100.000	
4.63426	4.64126	4.64359	4.64825	4.72756	4.73222	4.89550	4.95615	4.95848	

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (2) = 0.001

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (3) = 0.461

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (4)= 1.472
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (5)= 3.066
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (6)= 3.707
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (7)= 4.139
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (8)= 4.209

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
12	1	-11.07050	-16.19649	-1.06775
12	2	-11.63677	-17.12516	-1.28522
12	3	-13.77855	-17.23676	-1.32808
12	4	-14.34482	-18.66225	-1.98272
12	5	-14.95230	-21.42127	-3.45722
12	6	-15.24768	-22.80731	-4.23341
12	7	-15.46313	-25.38305	-5.71814
12	8	-15.50797	NUMXQ(K)= 8	

2.516E-06	0.050	1.000
1.662E-06	0.149	3.000
1.352E-06	0.248	5.000
1.004E-06	0.496	10.000
8.300E-07	0.744	15.000
7.211E-07	0.992	20.000
6.443E-07	1.240	25.000
5.847E-07	1.488	30.000
5.174E-07	1.735	35.000
4.644E-07	1.983	40.000
4.214E-07	2.231	45.000
3.857E-07	2.479	50.000
3.555E-07	2.727	55.000
3.297E-07	2.975	60.000
2.976E-07	3.223	65.000
2.652E-07	3.471	70.000
2.378E-07	3.719	75.000
2.096E-07	3.967	80.000
1.000E-06	0.5	10.08

ANNUAL AVERAGE = 7.34E-09

K= 12 FIVEXQ(K)= 1.000E-06 FIVEPR(K)=10.084

FUMIGATION X/Q AT THE BOUNDARY: 1.17E-05

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	9.658E-01	8.311E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
0.659	2.117	5.175	26.549	53.458	92.991	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 746 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE E SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	3.6	0.03	4000.	0.	131.		655.0	1000.0	0.0	0.000E+00	0.000E+00	1.334E-07		
A	6.0	0.24	4000.	0.	131.		655.0	1000.0	0.0	0.000E+00	0.000E+00	8.002E-08		
A	8.9	0.63	4000.	0.	131.		655.0	1000.0	0.0	0.000E+00	0.000E+00	5.407E-08		
A	11.6	0.42	4000.	0.	131.		655.0	1000.0	0.0	0.000E+00	0.000E+00	4.168E-08		
A	26.5	0.06	4000.	0.	131.		655.0	1000.0	0.0	0.000E+00	0.000E+00	1.819E-08		
B	3.6	0.12	4000.	0.	131.		492.6	497.9	0.0	0.000E+00	0.000E+00	3.469E-07		
B	6.0	0.63	4000.	0.	131.		492.6	497.9	0.0	0.000E+00	0.000E+00	2.082E-07		
B	8.9	0.81	4000.	0.	131.		492.6	497.9	0.0	0.000E+00	0.000E+00	1.406E-07		
B	11.6	0.36	4000.	0.	131.		492.6	497.9	0.0	0.000E+00	0.000E+00	1.084E-07		
B	26.5	0.18	4000.	0.	131.		492.6	497.9	0.0	0.000E+00	0.000E+00	4.731E-08		
C	3.6	0.15	4000.	0.	131.		374.1	216.1	0.0	0.000E+00	0.000E+00	9.062E-07		
C	6.0	1.25	4000.	0.	131.		374.1	216.1	0.0	0.000E+00	0.000E+00	5.437E-07		
C	8.9	1.67	4000.	0.	131.		374.1	216.1	0.0	0.000E+00	0.000E+00	3.674E-07		
C	11.6	0.86	4000.	0.	131.		374.1	216.1	0.0	0.000E+00	0.000E+00	2.832E-07		
C	26.5	0.39	4000.	0.	131.		374.1	216.1	0.0	0.000E+00	0.000E+00	1.236E-07		
D	0.2	0.00	4000.	0.	131.		263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05		
D	1.7	0.78	4000.	0.	131.		263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06		
D	3.6	4.21	4000.	0.	131.		263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06		
D	6.0	8.98	4000.	0.	131.		263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07		
D	8.9	11.78	4000.	0.	131.		263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07		
D	11.6	6.71	4000.	0.	131.		263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07		
D	26.5	2.68	4000.	0.	131.		263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07		
E	0.3	0.01	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06		
E	1.8	1.61	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06		
E	3.9	5.16	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07		
E	6.5	11.78	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07		
E	9.6	15.99	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07		
E	12.5	2.33	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07		
E	28.5	0.27	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08		
F	0.3	0.01	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06		
F	1.8	0.89	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07		
F	3.9	2.54	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07		
F	6.5	5.91	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07		
F	9.6	5.01	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07		

Calculation No. PM-1055 Revision 0**Attachment J****Page 747 of 1411**

F	12.5	0.72	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.003E-07
G	1.8	0.39	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	1.19	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	2.06	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	1.16	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08
G	12.5	0.03	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	9.405E-09
G	28.5	0.03	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	4.104E-09

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 748 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

E SECTOR BOUNDARY DISTANCE = 4000.0 METERS
BUILDING WAKE CREDIT IS NOT INCLUDED.
CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.
THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.
THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.224E-06	1.262E-06	1.038E-06	9.062E-07	6.875E-07	6.226E-07	5.890E-07
0.002	0.013	0.024	0.799	2.410	6.615	6.764	7.659	16.637	21.796
0.00014	0.00103	0.00184	0.06249	0.18844	0.51733	0.52899	0.59897	1.30106	1.70458
5.437E-07	4.207E-07	3.674E-07	3.534E-07	3.469E-07	3.243E-07	3.208E-07	2.832E-07	2.388E-07	2.082E-07
23.049	34.830	36.501	48.282	48.401	55.112	57.647	58.512	74.499	75.125
1.80255	2.72390	2.85452	3.77587	3.78520	4.31001	4.50828	4.57592	5.82616	5.87514
1.925E-07	1.841E-07	1.415E-07	1.406E-07	1.334E-07	1.301E-07	1.236E-07	1.084E-07	1.003E-07	8.032E-08
81.031	83.357	86.041	86.847	86.877	91.887	92.275	92.633	93.349	93.617
6.33698	6.51892	6.72884	6.79182	6.79415	7.18602	7.21634	7.24433	7.30031	7.32130
8.002E-08	6.449E-08	5.407E-08	4.731E-08	4.168E-08	3.010E-08	1.819E-08	1.806E-08	1.220E-08	9.405E-09
93.856	94.244	94.870	95.049	95.466	96.659	96.719	98.777	99.940	99.970
7.33996	7.37029	7.41927	7.43326	7.46592	7.55922	7.56389	7.72483	7.81580	7.81813
4.104E-09									
100.000									
7.82046									

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS

Calculation No. PM-1055 Revision 0

SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

Attachment J

Page 749 of 1411

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (2)= 1.703
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (3)= 4.505
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (4)= 5.822
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (5)= 6.515
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (6)= 7.182

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
13	1	-11.07050	-17.04510	-1.27406
13	2	-14.34482	-17.37762	-1.43095
13	3	-14.95230	-18.95640	-2.36244
13	4	-15.24768	-22.42273	-4.57048
13	5	-15.50797	-25.89736	-6.86713
13	6	-15.85517	NUMXQ(K) = 6	
		2.226E-06	0.078	1.000
		1.452E-06	0.235	3.000
		1.173E-06	0.391	5.000
		8.612E-07	0.782	10.000
		7.102E-07	1.173	15.000
		6.155E-07	1.564	20.000
		5.437E-07	1.955	25.000
		4.876E-07	2.346	30.000
		4.436E-07	2.737	35.000
		4.079E-07	3.128	40.000
		3.782E-07	3.519	45.000
		3.530E-07	3.910	50.000
		3.312E-07	4.301	55.000
		3.067E-07	4.692	60.000
		2.800E-07	5.083	65.000
		2.569E-07	5.474	70.000
		2.352E-07	5.865	75.000
		2.026E-07	6.256	80.000
		1.718E-07	6.647	85.000
		1.401E-07	7.038	90.000
		1.054E-06	0.5	6.39

ANNUAL AVERAGE = 1.16E-08

K= 13 FIVEXQ(K)= 1.054E-06 FIVEPR(K)= 6.393

FUMIGATION X/Q AT THE BOUNDARY: 1.17E-05

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	9.658E-01	8.311E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
1.372	3.460	7.785	22.857	57.994	95.138	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 750 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE ESE SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	6.0	0.24	4000.	0.	131.		655.0	1000.0	0.0	0.000E+00	0.000E+00	8.002E-08		
A	8.9	0.24	4000.	0.	131.		655.0	1000.0	0.0	0.000E+00	0.000E+00	5.407E-08		
A	11.6	0.05	4000.	0.	131.		655.0	1000.0	0.0	0.000E+00	0.000E+00	4.168E-08		
A	26.5	0.13	4000.	0.	131.		655.0	1000.0	0.0	0.000E+00	0.000E+00	1.819E-08		
B	3.6	0.08	4000.	0.	131.		492.6	497.9	0.0	0.000E+00	0.000E+00	3.469E-07		
B	6.0	0.24	4000.	0.	131.		492.6	497.9	0.0	0.000E+00	0.000E+00	2.082E-07		
B	8.9	0.53	4000.	0.	131.		492.6	497.9	0.0	0.000E+00	0.000E+00	1.406E-07		
B	11.6	0.37	4000.	0.	131.		492.6	497.9	0.0	0.000E+00	0.000E+00	1.084E-07		
B	26.5	0.19	4000.	0.	131.		492.6	497.9	0.0	0.000E+00	0.000E+00	4.731E-08		
C	3.6	0.13	4000.	0.	131.		374.1	216.1	0.0	0.000E+00	0.000E+00	9.062E-07		
C	6.0	0.69	4000.	0.	131.		374.1	216.1	0.0	0.000E+00	0.000E+00	5.437E-07		
C	8.9	1.57	4000.	0.	131.		374.1	216.1	0.0	0.000E+00	0.000E+00	3.674E-07		
C	11.6	0.80	4000.	0.	131.		374.1	216.1	0.0	0.000E+00	0.000E+00	2.832E-07		
C	26.5	0.72	4000.	0.	131.		374.1	216.1	0.0	0.000E+00	0.000E+00	1.236E-07		
D	0.2	0.00	4000.	0.	131.		263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05		
D	1.7	1.01	4000.	0.	131.		263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06		
D	3.6	2.59	4000.	0.	131.		263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06		
D	6.0	9.48	4000.	0.	131.		263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07		
D	8.9	17.99	4000.	0.	131.		263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07		
D	11.6	11.96	4000.	0.	131.		263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07		
D	26.5	4.03	4000.	0.	131.		263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07		
E	0.3	0.01	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06		
E	1.8	0.96	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06		
E	3.9	3.68	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07		
E	6.5	9.45	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07		
E	9.6	15.56	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07		
E	12.5	2.96	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07		
E	28.5	0.32	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08		
F	0.3	0.01	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06		
F	1.8	0.75	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07		
F	3.9	1.76	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07		
F	6.5	3.74	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07		
F	9.6	3.68	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07		
F	12.5	0.48	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	1.003E-07		

G	1.8	0.37	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	0.93	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	1.17	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	1.04	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08
G	12.5	0.05	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	9.405E-09

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 752 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

ESE SECTOR BOUNDARY DISTANCE = 4000.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.224E-06	1.262E-06	1.038E-06	9.062E-07	6.875E-07	6.226E-07	5.890E-07
0.002	0.009	0.018	1.032	1.993	4.582	4.715	5.463	14.938	18.621
0.00020	0.00080	0.00155	0.09019	0.17416	0.40041	0.41208	0.47739	1.30543	1.62732
5.437E-07	4.207E-07	3.674E-07	3.534E-07	3.469E-07	3.243E-07	3.208E-07	2.832E-07	2.388E-07	2.082E-07
19.315	37.304	38.879	48.327	48.407	60.365	62.126	62.927	78.488	78.728
1.68797	3.26009	3.39771	4.22342	4.23042	5.27539	5.42934	5.49931	6.85917	6.88017
1.925E-07	1.841E-07	1.415E-07	1.406E-07	1.301E-07	1.236E-07	1.084E-07	1.003E-07	8.032E-08	8.002E-08
82.464	85.427	89.457	89.991	93.674	94.395	94.769	95.249	95.569	95.810
7.20672	7.46563	7.81784	7.86449	8.18638	8.24936	8.28201	8.32400	8.35199	8.37298
6.449E-08	5.407E-08	4.731E-08	4.168E-08	3.010E-08	1.819E-08	1.806E-08	1.220E-08	9.405E-09	
96.183	96.423	96.610	96.664	97.598	97.731	98.906	99.947	100.000	
8.40564	8.42663	8.44296	8.44762	8.52926	8.54092	8.64355	8.73452	8.73919	

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (2)= 0.090
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (3)= 3.257

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (4)= 5.426
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (5)= 6.855
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (6)= 7.462
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (7)= 8.183

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
14	1	-11.07050	-17.09216	-1.30589
14	2	-13.01641	-17.08651	-1.30408
14	3	-14.68142	-16.76853	-1.13166
14	4	-14.95230	-18.96078	-2.49762
14	5	-15.24768	-23.95891	-5.85962
14	6	-15.50797	-25.65541	-7.03592
14	7	-15.85517	NUMXQ(K)= 7	
		2.251E-06	0.087	1.000
		1.448E-06	0.262	3.000
		1.161E-06	0.437	5.000
		8.426E-07	0.874	10.000
		6.897E-07	1.311	15.000
		5.943E-07	1.748	20.000
		5.272E-07	2.185	25.000
		4.766E-07	2.622	30.000
		4.365E-07	3.059	35.000
		4.060E-07	3.496	40.000
		3.819E-07	3.933	45.000
		3.612E-07	4.370	50.000
		3.431E-07	4.807	55.000
		3.271E-07	5.244	60.000
		3.034E-07	5.680	65.000
		2.765E-07	6.117	70.000
		2.532E-07	6.554	75.000
		2.253E-07	6.991	80.000
		1.869E-07	7.428	85.000
		1.514E-07	7.865	90.000
		1.093E-06	0.5	5.72

ANNUAL AVERAGE = 1.37E-08

K= 14 FIVEXQ(K)= 1.093E-06 FIVEPR(K)= 5.721

FUMIGATION X/Q AT THE BOUNDARY: 1.17E-05

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	9.658E-01	8.311E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
0.667	2.082	6.005	16.423	63.481	96.423	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 754 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE SE SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN HT	EFF PLUME HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS						CA=1292.SQ.METERS					
A	6.0	0.04	4000.	0.	131.	655.0	1000.0	0.0	0.000E+00	0.000E+00	8.002E-08
A	8.9	0.06	4000.	0.	131.	655.0	1000.0	0.0	0.000E+00	0.000E+00	5.407E-08
A	26.5	0.02	4000.	0.	131.	655.0	1000.0	0.0	0.000E+00	0.000E+00	1.819E-08
B	3.6	0.08	4000.	0.	131.	492.6	497.9	0.0	0.000E+00	0.000E+00	3.469E-07
B	6.0	0.04	4000.	0.	131.	492.6	497.9	0.0	0.000E+00	0.000E+00	2.082E-07
B	8.9	0.19	4000.	0.	131.	492.6	497.9	0.0	0.000E+00	0.000E+00	1.406E-07
B	11.6	0.08	4000.	0.	131.	492.6	497.9	0.0	0.000E+00	0.000E+00	1.084E-07
C	3.6	0.06	4000.	0.	131.	374.1	216.1	0.0	0.000E+00	0.000E+00	9.062E-07
C	6.0	0.55	4000.	0.	131.	374.1	216.1	0.0	0.000E+00	0.000E+00	5.437E-07
C	8.9	0.74	4000.	0.	131.	374.1	216.1	0.0	0.000E+00	0.000E+00	3.674E-07
C	11.6	0.59	4000.	0.	131.	374.1	216.1	0.0	0.000E+00	0.000E+00	2.832E-07
C	26.5	0.13	4000.	0.	131.	374.1	216.1	0.0	0.000E+00	0.000E+00	1.236E-07
D	0.2	0.00	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05
D	1.7	0.76	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06
D	3.6	4.10	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06
D	6.0	11.52	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07
D	8.9	22.08	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07
D	11.6	11.54	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07
D	26.5	3.91	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07
E	0.3	0.01	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06
E	1.8	0.83	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06
E	3.9	3.61	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07
E	6.5	11.03	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07
E	9.6	13.83	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07
E	12.5	1.89	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07
E	28.5	0.13	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08
F	0.3	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06
F	1.8	0.55	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07
F	3.9	2.00	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07
F	6.5	3.78	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07
F	9.6	1.91	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07
G	1.8	0.28	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	1.49	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08

G	6.5	1.95	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	0.19	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 756 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

SE SECTOR BOUNDARY DISTANCE = 4000.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.224E-06	1.262E-06	1.038E-06	9.062E-07	6.875E-07	6.226E-07	5.890E-07
0.002	0.008	0.014	0.779	1.607	5.708	5.772	6.324	17.840	21.452
0.00019	0.00084	0.00154	0.08551	0.17648	0.62665	0.63365	0.69430	1.95853	2.35505
5.437E-07	4.207E-07	3.674E-07	3.534E-07	3.469E-07	3.243E-07	3.208E-07	2.832E-07	2.388E-07	2.082E-07
22.004	44.079	44.823	55.850	55.935	67.472	69.469	70.064	83.895	83.938
2.41570	4.83919	4.92083	6.13141	6.14074	7.40730	7.62656	7.69187	9.21034	9.21501
1.925E-07	1.841E-07	1.415E-07	1.406E-07	1.301E-07	1.236E-07	1.084E-07	8.032E-08	8.002E-08	6.449E-08
87.720	89.610	93.520	93.711	95.623	95.751	95.836	95.963	96.006	96.282
9.63020	9.83779	10.26698	10.28797	10.49790	10.51189	10.52122	10.53522	10.53988	10.57021
5.407E-08	3.010E-08	1.819E-08	1.806E-08	1.220E-08					
96.346	97.833	97.854	99.809	100.000					
10.57720	10.74048	10.74281	10.95741	10.97840					

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (2)= 2.353

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (3)= 4.836

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (4)= 7.623
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (5)= 9.207
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (6)= 9.835

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
15	1	-11.07050	-16.81099	-1.24189
15	2	-14.34482	-16.40273	-1.03630
15	3	-14.68142	-16.63680	-1.17722
15	4	-14.95230	-19.06417	-2.87360
15	5	-15.24768	-24.56874	-7.01824
15	6	-15.50797	NUMXQ(K) = 6	
		2.244E-06	0.110	1.000
		1.461E-06	0.329	3.000
		1.178E-06	0.549	5.000
		8.610E-07	1.098	10.000
		7.074E-07	1.647	15.000
		6.110E-07	2.196	20.000
		5.503E-07	2.745	25.000
		5.063E-07	3.294	30.000
		4.708E-07	3.842	35.000
		4.414E-07	4.391	40.000
		4.158E-07	4.940	45.000
		3.913E-07	5.489	50.000
		3.700E-07	6.038	55.000
		3.512E-07	6.587	60.000
		3.344E-07	7.136	65.000
		3.171E-07	7.685	70.000
		2.851E-07	8.234	75.000
		2.576E-07	8.783	80.000
		2.268E-07	9.332	85.000
		1.226E-06	0.5	4.55

ANNUAL AVERAGE = 1.87E-08

K= 15 FIVEXQ(K)= 1.226E-06 FIVEPR(K)= 4.554

FUMIGATION X/Q AT THE BOUNDARY: 1.17E-05

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	9.658E-01	8.311E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
0.127	0.531	2.613	10.863	64.767	96.091	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 758 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE SSE SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	3.6	0.02	4000.	0.	131.	655.0	1000.0	0.0	0.000E+00	0.000E+00	1.334E-07			
A	6.0	0.17	4000.	0.	131.	655.0	1000.0	0.0	0.000E+00	0.000E+00	8.002E-08			
A	8.9	0.32	4000.	0.	131.	655.0	1000.0	0.0	0.000E+00	0.000E+00	5.407E-08			
A	11.6	0.02	4000.	0.	131.	655.0	1000.0	0.0	0.000E+00	0.000E+00	4.168E-08			
A	26.5	0.02	4000.	0.	131.	655.0	1000.0	0.0	0.000E+00	0.000E+00	1.819E-08			
B	3.6	0.06	4000.	0.	131.	492.6	497.9	0.0	0.000E+00	0.000E+00	3.469E-07			
B	6.0	0.48	4000.	0.	131.	492.6	497.9	0.0	0.000E+00	0.000E+00	2.082E-07			
B	8.9	0.71	4000.	0.	131.	492.6	497.9	0.0	0.000E+00	0.000E+00	1.406E-07			
B	11.6	0.11	4000.	0.	131.	492.6	497.9	0.0	0.000E+00	0.000E+00	1.084E-07			
C	3.6	0.48	4000.	0.	131.	374.1	216.1	0.0	0.000E+00	0.000E+00	9.062E-07			
C	6.0	2.16	4000.	0.	131.	374.1	216.1	0.0	0.000E+00	0.000E+00	5.437E-07			
C	8.9	2.01	4000.	0.	131.	374.1	216.1	0.0	0.000E+00	0.000E+00	3.674E-07			
C	11.6	0.37	4000.	0.	131.	374.1	216.1	0.0	0.000E+00	0.000E+00	2.832E-07			
D	0.2	0.00	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05			
D	1.7	1.08	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06			
D	3.6	8.31	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06			
D	6.0	20.04	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07			
D	8.9	19.82	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07			
D	11.6	5.23	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07			
D	26.5	1.36	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07			
E	0.3	0.01	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06			
E	1.8	0.73	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06			
E	3.9	4.38	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07			
E	6.5	11.10	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07			
E	9.6	10.11	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07			
E	12.5	0.93	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07			
E	28.5	0.22	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08			
F	0.3	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06			
F	1.8	0.48	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07			
F	3.9	2.09	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07			
F	6.5	2.72	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07			
F	9.6	0.69	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07			
F	12.5	0.11	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.003E-07			

Calculation No. PM-1055 Revision 0

Attachment J

G	1.8	0.41	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	1.27	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	1.84	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	0.11	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08
G	28.5	0.02	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	4.104E-09

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 760 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

SSE SECTOR BOUNDARY DISTANCE = 4000.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.
THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.
THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.224E-06	1.262E-06	1.038E-06	9.062E-07	6.875E-07	6.226E-07	5.890E-07
0.002	0.008	0.013	1.093	1.827	10.141	10.617	11.092	31.132	35.516
0.00026	0.00083	0.00142	0.11805	0.19735	1.09537	1.14669	1.19801	3.36259	3.83609
5.437E-07	4.207E-07	3.674E-07	3.534E-07	3.469E-07	3.243E-07	3.208E-07	2.832E-07	2.388E-07	2.082E-07
37.676	57.500	59.509	70.609	70.673	75.899	77.994	78.361	88.468	88.943
4.06934	6.21060	6.42753	7.62644	7.63344	8.19791	8.42417	8.46382	9.55544	9.60676
1.925E-07	1.841E-07	1.415E-07	1.406E-07	1.334E-07	1.301E-07	1.084E-07	1.003E-07	8.032E-08	8.002E-08
91.664	92.593	93.953	94.666	94.688	95.379	95.487	95.595	95.810	95.983
9.90065	10.00095	10.14790	10.22487	10.22721	10.30185	10.31351	10.32517	10.34850	10.36716
6.449E-08	5.407E-08	4.168E-08	3.010E-08	1.819E-08	1.806E-08	1.220E-08	4.104E-09		
96.394	96.717	96.739	98.013	98.035	99.870	99.978	100.000		
10.41148	10.44646	10.44880	10.58642	10.58875	10.78701	10.79868	10.80101		

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 3.833

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 6.207

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (4) = 7.623
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (5) = 8.421
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (6) = 9.552
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (7) = 9.998
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (8) = 10.299

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
16	1	-11.07050	-16.42751	-1.17638
16	2	-14.34482	-16.90488	-1.44602
16	3	-14.68142	-17.19148	-1.63240
16	4	-14.85564	-17.43642	-1.80358
16	5	-14.95230	-20.77856	-4.23012
16	6	-15.24768	-28.42556	-10.07868
16	7	-15.50797	-41.72990	-20.45912
16	8	-15.85517	NUMXQ(K) = 8	
		2.709E-06	0.108	1.000
		1.806E-06	0.324	3.000
		1.473E-06	0.540	5.000
		1.095E-06	1.080	10.000
		9.096E-07	1.620	15.000
		7.920E-07	2.160	20.000
		7.083E-07	2.700	25.000
		6.445E-07	3.240	30.000
		5.937E-07	3.780	35.000
		5.437E-07	4.320	40.000
		5.013E-07	4.860	45.000
		4.654E-07	5.401	50.000
		4.346E-07	5.941	55.000
		4.060E-07	6.481	60.000
		3.795E-07	7.021	65.000
		3.561E-07	7.561	70.000
		3.334E-07	8.101	75.000
		3.025E-07	8.641	80.000
		2.625E-07	9.181	85.000
		2.166E-07	9.721	90.000
		1.520E-06	0.5	4.63

ANNUAL AVERAGE = 2.43E-08

K= 16 FIVEXQ(K)= 1.520E-06 FIVEPR(K)= 4.629

FUMIGATION X/Q AT THE BOUNDARY: 1.17E-05

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	9.658E-01	8.311E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
0.561	1.922	6.932	13.028	68.876	96.350	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 762 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE ALL SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	1.7	0.01	4000.	0.	131.	655.0	1000.0	0.0	0.000E+00	0.000E+00	2.858E-07			
A	3.6	0.51	4000.	0.	131.	655.0	1000.0	0.0	0.000E+00	0.000E+00	1.334E-07			
A	6.0	0.53	4000.	0.	131.	655.0	1000.0	0.0	0.000E+00	0.000E+00	8.002E-08			
A	8.9	0.28	4000.	0.	131.	655.0	1000.0	0.0	0.000E+00	0.000E+00	5.407E-08			
A	11.6	0.06	4000.	0.	131.	655.0	1000.0	0.0	0.000E+00	0.000E+00	4.168E-08			
A	26.5	0.03	4000.	0.	131.	655.0	1000.0	0.0	0.000E+00	0.000E+00	1.819E-08			
B	1.7	0.05	4000.	0.	131.	492.6	497.9	0.0	0.000E+00	0.000E+00	7.434E-07			
B	3.6	0.47	4000.	0.	131.	492.6	497.9	0.0	0.000E+00	0.000E+00	3.469E-07			
B	6.0	0.54	4000.	0.	131.	492.6	497.9	0.0	0.000E+00	0.000E+00	2.082E-07			
B	8.9	0.44	4000.	0.	131.	492.6	497.9	0.0	0.000E+00	0.000E+00	1.406E-07			
B	11.6	0.12	4000.	0.	131.	492.6	497.9	0.0	0.000E+00	0.000E+00	1.084E-07			
B	26.5	0.03	4000.	0.	131.	492.6	497.9	0.0	0.000E+00	0.000E+00	4.731E-08			
C	1.7	0.08	4000.	0.	131.	374.1	216.1	0.0	0.000E+00	0.000E+00	1.942E-06			
C	3.6	0.77	4000.	0.	131.	374.1	216.1	0.0	0.000E+00	0.000E+00	9.062E-07			
C	6.0	1.33	4000.	0.	131.	374.1	216.1	0.0	0.000E+00	0.000E+00	5.437E-07			
C	8.9	1.04	4000.	0.	131.	374.1	216.1	0.0	0.000E+00	0.000E+00	3.674E-07			
C	11.6	0.30	4000.	0.	131.	374.1	216.1	0.0	0.000E+00	0.000E+00	2.832E-07			
C	26.5	0.13	4000.	0.	131.	374.1	216.1	0.0	0.000E+00	0.000E+00	1.236E-07			
D	0.2	0.00	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.556E-05			
D	1.7	2.07	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.224E-06			
D	3.6	9.39	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.038E-06			
D	6.0	15.72	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.226E-07			
D	8.9	12.23	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.207E-07			
D	11.6	4.24	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.243E-07			
D	26.5	1.39	4000.	0.	131.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.415E-07			
E	0.3	0.01	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06			
E	1.8	1.97	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06			
E	3.9	8.90	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07			
E	6.5	13.85	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07			
E	9.6	9.53	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07			
E	12.5	1.29	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07			
E	28.5	0.23	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08			
F	0.3	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06			
F	1.8	1.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07			

Calculation No. PM-1055 Revision 0
Attachment J
Page 763 of 1411

F	3.9	3.14	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07
F	6.5	3.52	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07
F	9.6	1.55	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07
F	12.5	0.16	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.003E-07
F	28.5	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.375E-08
G	1.8	0.43	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	1.17	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	1.14	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	0.31	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08
G	12.5	0.01	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	9.405E-09
G	28.5	0.00	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	4.104E-09

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 764 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

DIRECTION-INDEPENDENT (S.R.P 2.3.4) MODEL.

MINIMUM BOUNDARY DISTANCE = 4000.0 METERS.

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.224E-06	1.942E-06	1.262E-06	1.038E-06	9.062E-07	7.434E-07	6.875E-07
0.005	0.019	0.030	2.097	2.174	4.140	13.531	14.296	14.343	15.353
0.00467	0.01866	0.03032	2.09694	2.17391	4.14023	13.53097	14.29604	14.34269	15.35268
6.226E-07	5.890E-07	5.437E-07	4.207E-07	3.674E-07	3.534E-07	3.469E-07	3.243E-07	3.208E-07	2.858E-07
31.072	39.968	41.297	53.527	54.569	68.415	68.886	73.127	76.269	76.276
31.07156	39.96781	41.29735	53.52678	54.56941	68.41528	68.88644	73.12698	76.26889	76.27589
2.832E-07	2.388E-07	2.082E-07	1.925E-07	1.841E-07	1.415E-07	1.406E-07	1.334E-07	1.301E-07	1.236E-07
76.579	86.105	86.649	90.166	91.461	92.848	93.289	93.802	95.356	95.482
76.57912	86.10514	86.64862	90.16607	91.46062	92.84846	93.28931	93.80247	95.35593	95.48188
1.084E-07	1.003E-07	8.032E-08	8.002E-08	6.449E-08	5.407E-08	4.731E-08	4.375E-08	4.168E-08	3.010E-08
95.603	95.764	95.993	96.524	96.958	97.236	97.271	97.283	97.341	98.514
95.60317	95.76411	95.99270	96.52452	96.95837	97.23595	97.27094	97.28260	97.34091	98.51417
1.819E-08	1.806E-08	1.220E-08	9.405E-09	4.104E-09					
98.542	99.678	99.986	99.995	100.000					
98.54216	99.67810	99.98599	99.99532	99.99998					

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS

Calculation No. PM-1055 Revision 0

Attachment J

Page 765 of 1411

SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

3.385E-06	1.000	1.000
2.202E-06	3.000	3.000
1.753E-06	5.000	5.000
1.235E-06	10.000	10.000
9.934E-07	15.000	15.000
8.721E-07	20.000	20.000
7.799E-07	25.000	25.000
7.055E-07	30.000	30.000
6.429E-07	35.000	35.000
5.887E-07	40.000	40.000
5.434E-07	45.000	45.000
5.023E-07	50.000	50.000
4.643E-07	55.000	55.000
4.286E-07	60.000	60.000
3.946E-07	65.000	65.000
3.616E-07	70.000	70.000
3.291E-07	75.000	75.000
2.900E-07	80.000	80.000
2.482E-07	85.000	85.000
1.995E-07	90.000	90.000
1.753E-06	5.0	5.00

K= 17 FIVEXQ(K)= 1.753E-06 FIVEPR(K)= 5.000

FUMIGATION X/Q AT THE BOUNDARY: 1.17E-05

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	9.658E-01	8.311E-01	3.613E-01	2.419E-01	2.081E-01	1.693E-02
1.416	3.074	6.718	16.125	61.163	96.935	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 766 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

FIVE PERCENT OVERALL SITE LIMIT

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.556E-05	8.835E-06	4.813E-06	2.224E-06	1.942E-06	1.262E-06	1.038E-06	9.062E-07	7.434E-07	6.875E-07
0.005	0.019	0.030	2.097	2.174	4.140	13.531	14.296	14.343	15.353
0.00467	0.01866	0.03032	2.09694	2.17391	4.14023	13.53098	14.29604	14.34269	15.35268
6.226E-07	5.890E-07	5.437E-07	4.207E-07	3.674E-07	3.534E-07	3.469E-07	3.243E-07	3.208E-07	2.858E-07
31.072	39.968	41.297	53.527	54.569	68.415	68.886	73.127	76.269	76.276
31.07156	39.96781	41.29735	53.52678	54.56942	68.41528	68.88644	73.12697	76.26889	76.27589
2.832E-07	2.388E-07	2.082E-07	1.925E-07	1.841E-07	1.415E-07	1.406E-07	1.334E-07	1.301E-07	1.236E-07
76.579	86.105	86.649	90.166	91.461	92.848	93.289	93.802	95.356	95.482
76.57912	86.10514	86.64861	90.16605	91.46062	92.84846	93.28932	93.80247	95.35593	95.48189
1.084E-07	1.003E-07	8.032E-08	8.002E-08	6.449E-08	5.407E-08	4.731E-08	4.375E-08	4.168E-08	3.010E-08
95.603	95.764	95.993	96.525	96.958	97.236	97.271	97.283	97.341	98.514
95.60319	95.76413	95.99272	96.52455	96.95839	97.23595	97.27094	97.28260	97.34090	98.51416
1.819E-08	1.806E-08	1.220E-08	9.405E-09	4.104E-09					
98.542	99.678	99.986	99.995	100.000					
98.54215	99.67808	99.98598	99.99531	99.99998					

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS

Calculation No. PM-1055 Revision 0

SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

Attachment J

Page 767 of 1411

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
18	1	-11.07050	-14.84188	-0.96518
18	2	-13.77855	-14.51429	-0.66783
18	3	-14.34482	-14.50399	-0.62726
18	4	-14.95230	-14.38231	-0.79751
18	5	-15.24768	-14.25606	-0.91386
18	6	-15.50797	-13.97788	-1.11693
18	7	-15.85517	NUMXQ(K) = 7	
		3.385E-06	1.000	1.000
		2.202E-06	3.000	3.000
		1.753E-06	5.000	5.000
		1.235E-06	10.000	10.000
		9.934E-07	15.000	15.000
		8.721E-07	20.000	20.000
		7.799E-07	25.000	25.000
		7.055E-07	30.000	30.000
		6.429E-07	35.000	35.000
		5.887E-07	40.000	40.000
		5.434E-07	45.000	45.000
		5.023E-07	50.000	50.000
		4.643E-07	55.000	55.000
		4.286E-07	60.000	60.000
		3.946E-07	65.000	65.000
		3.616E-07	70.000	70.000
		3.291E-07	75.000	75.000
		2.900E-07	80.000	80.000
		2.482E-07	85.000	85.000
		1.995E-07	90.000	90.000
		1.753E-06	5.0	5.00

K= 18 FIVEXQ(K) = 1.753E-06 FIVEPR(K) = 5.000

K	HIGHPR	PR	GRNDVT(K)
1	-2.71469	0.33170	6.21119
2	-1.61710	5.29286	3.52599
3	-2.64812	0.40471	3.10868
4	-2.58808	0.48256	3.53145
5	-2.57624	0.49942	4.76778
6	-2.67759	0.37078	4.27759
7	-2.72791	0.31869	5.37148
8	-2.80439	0.25206	5.07527
9	-2.69730	0.34953	10.00153
10	-2.86025	0.21166	5.86355
11	-2.89760	0.18802	4.96796
12	-2.99098	0.13905	4.95848
13	-2.95434	0.15668	7.82046
14	-2.91809	0.17610	8.73919
15	-2.84237	0.22390	10.97840
16	-2.67467	0.37403	10.80101

K	HOURS (K)	TOTHR
1	29.05691	29.05691
2	463.65480	492.71170
3	35.45256	528.16420
4	42.27219	570.43640
5	43.74879	614.18520
6	32.48003	646.66520
7	27.91708	674.58230
8	22.08064	696.66290
9	30.61862	727.28150
10	18.54160	745.82310
11	16.47080	762.29390
12	12.18093	774.47490
13	13.72488	788.19980
14	15.42601	803.62580
15	19.61407	823.23990
16	32.76460	856.00450

K	FIVEXQ	SVANN	SLTIME	TIMINT	I	TIME	XQT
1	1.440E-06	1.622E-08	-0.5351	-13.0798	1	8.0	-14.19247
					2	16.0	-14.56334
					3	72.0	-15.36811
					4	624.0	-16.52356
2	1.256E-06	1.113E-08	-0.5635	-13.1972	1	8.0	-14.36906
					2	16.0	-14.75968
					3	72.0	-15.60730
					4	624.0	-16.82428
3	1.509E-06	1.248E-08	-0.5719	-13.0078	1	8.0	-14.19695
					2	16.0	-14.59335
					3	72.0	-15.45349
					4	624.0	-16.68844
4	1.677E-06	1.535E-08	-0.5598	-12.9102	1	8.0	-14.07426
					2	16.0	-14.46226
					3	72.0	-15.30420
					4	624.0	-16.51301
5	1.706E-06	1.767E-08	-0.5450	-12.9033	1	8.0	-14.03667
					2	16.0	-14.41446
					3	72.0	-15.23425
					4	624.0	-16.41125
6	1.489E-06	1.429E-08	-0.5541	-13.0334	1	8.0	-14.18557
					2	16.0	-14.56964
					3	72.0	-15.40304
					4	624.0	-16.59959
7	1.423E-06	1.432E-08	-0.5485	-13.0824	1	8.0	-14.22284
					2	16.0	-14.60299

8	1.294E-06	1.170E-08	-0.5613	-13.1686	3	72.0	-15.42791
					4	624.0	-16.61228
					1	8.0	-14.33574
					2	16.0	-14.72480
9	1.482E-06	1.939E-08	-0.5172	-13.0636	3	72.0	-15.56903
					4	624.0	-16.78113
					1	8.0	-14.13906
					2	16.0	-14.49755
10	1.216E-06	1.089E-08	-0.5624	-13.2299	3	72.0	-15.27543
					4	624.0	-16.39229
					1	8.0	-14.39934
					2	16.0	-14.78916
11	1.137E-06	8.981E-09	-0.5773	-13.2871	3	72.0	-15.63505
					4	624.0	-16.84953
					1	8.0	-14.48757
					2	16.0	-14.88774
12	1.000E-06	7.341E-09	-0.5861	-13.4091	3	72.0	-15.75608
					4	624.0	-17.00280
					1	8.0	-14.62781
					2	16.0	-15.03406
13	1.054E-06	1.161E-08	-0.5377	-13.3901	3	72.0	-15.91559
					4	624.0	-17.18125
					1	8.0	-14.50816
					2	16.0	-14.88084
14	1.093E-06	1.373E-08	-0.5220	-13.3651	3	72.0	-15.68952
					4	624.0	-16.85058
					1	8.0	-14.45052
					2	16.0	-14.81234
15	1.226E-06	1.866E-08	-0.4991	-13.2656	3	72.0	-15.59744
					4	624.0	-16.72466
					1	8.0	-14.30350
					2	16.0	-14.64946
16	1.520E-06	2.426E-08	-0.4935	-13.0548	3	72.0	-15.40015
					4	624.0	-16.47797
					1	8.0	-14.08095
					2	16.0	-14.42299
17	1.753E-06	2.426E-08	-0.5105	-12.9001	3	72.0	-15.16518
					4	624.0	-16.23078
					1	8.0	-13.96165
					2	16.0	-14.31550
18	1.753E-06	2.426E-08	-0.5105	-12.9001	3	72.0	-15.08333
					4	624.0	-16.18575
					1	8.0	-13.96165
					2	16.0	-14.31550

1	8.0	-13.96165
2	16.0	-14.31550
3	72.0	-15.08333
4	624.0	-16.18575

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 771 of 1411

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

RELATIVE CONCENTRATION (X/Q) VALUES (SEC/CUBIC METER)

VERSUS

AVERAGING TIME

HOURS PER YEAR MAX

0-2 HR X/Q IS

EXCEEDED

DOWNWIND DISTANCE									DOWNWIND
SECTOR	(METERS)	0-2 HOURS	0-8 HOURS	8-24 HOURS	1-4 DAYS	4-30 DAYS	ANNUAL AVERAGE	IN SECTOR	SECTOR
S	4000.	1.44E-06	6.86E-07	4.73E-07	2.12E-07	6.67E-08	1.62E-08	29.1	S
SSW	4000.	1.26E-06	5.75E-07	3.89E-07	1.67E-07	4.94E-08	1.11E-08	463.7	SSW
SW	4000.	1.51E-06	6.83E-07	4.59E-07	1.94E-07	5.65E-08	1.25E-08	35.5	SW
WSW	4000.	1.68E-06	7.72E-07	5.24E-07	2.26E-07	6.74E-08	1.54E-08	42.3	WSW
W	4000.	1.71E-06	8.02E-07	5.49E-07	2.42E-07	7.46E-08	1.77E-08	43.7	W
WNW	4000.	1.49E-06	6.91E-07	4.70E-07	2.04E-07	6.18E-08	1.43E-08	32.5	WNW
NW	4000.	1.42E-06	6.65E-07	4.55E-07	1.99E-07	6.10E-08	1.43E-08	27.9	NW
NNW	4000.	1.29E-06	5.94E-07	4.03E-07	1.73E-07	5.15E-08	1.17E-08	22.1	NNW
N	4000.	1.48E-06	7.24E-07	5.06E-07	2.32E-07	7.60E-08	1.94E-08	30.6	N
NNE	4000.	1.22E-06	5.58E-07	3.78E-07	1.62E-07	4.81E-08	1.09E-08	18.5	NNE
NE	4000.	1.14E-06	5.11E-07	3.42E-07	1.44E-07	4.13E-08	8.98E-09	16.5	NE
ENE	4000.	1.00E-06	4.44E-07	2.96E-07	1.22E-07	3.45E-08	7.34E-09	12.2	ENE
E	4000.	1.05E-06	5.00E-07	3.45E-07	1.54E-07	4.81E-08	1.16E-08	13.7	E
ESE	4000.	1.09E-06	5.30E-07	3.69E-07	1.68E-07	5.45E-08	1.37E-08	15.4	ESE
SE	4000.	1.23E-06	6.14E-07	4.34E-07	2.05E-07	6.98E-08	1.87E-08	19.6	SE
SSE	4000.	1.52E-06	7.67E-07	5.45E-07	2.59E-07	8.93E-08	2.43E-08	32.8	SSE
MAX X/Q		1.71E-06							
						TOTAL HOURS AROUND SITE:		856.0	
SRP 2.3.4	4000.	1.75E-06	8.64E-07	6.07E-07	2.81E-07	9.35E-08	2.43E-08		
SITE LIMIT		1.75E-06	8.64E-07	6.07E-07	2.81E-07	9.35E-08	2.43E-08		

THE FIVE-PERCENT-FOR-THE-ENTIRE-SITE X/Q IS LIMITING.

X/Q VALUES (SEC/CUBIC METER) FOR FUMIGATION AT THE BOUNDARY:

DOWNWIND DISTANCE FUMIGATION

SECTOR	(METERS)	X/Q
S	4000.	1.17E-05
SSW	4000.	1.17E-05
SW	4000.	1.17E-05
WSW	4000.	1.17E-05
W	4000.	1.17E-05
WNW	4000.	1.17E-05
NW	4000.	1.17E-05
NNW	4000.	1.17E-05
N	4000.	1.17E-05
NNE	4000.	1.17E-05
NE	4000.	1.17E-05
ENE	4000.	1.17E-05
E	4000.	1.17E-05

Calculation No. PM-1055 Revision 0**Attachment J****Page 772 of 1411**

ESE	4000.	1.17E-05
SE	4000.	1.17E-05
SSE	4000.	1.17E-05

****NOTE**:** VALUES ON THIS PAGE ARE APPROXIMATIONS ONLY.
CHECK THE REASONABLENESS OF THE ENVELOPES
COMPUTED FOR THE 0-2 HOUR VALUES. FOR ANY
FAULTY ENVELOPES, ADJUST THE ABOVE VALUES.

PAVAN Input**Off Gas Stack to Control Room (Tower 2 320' wind and 316'-33' Delta T Stability Class; distances of 5000 m and 6000 m)**

1 1111
Peach Bottom Stack Release
97.5 meters 10.1-96.3 meters

Peach Bottom, Tower 2 1984-1988 met data

7 1
2584. 54.3131.4 97.5

0	0	0	2	6	5	0											
0.	0.	0.	0.	3.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
6.	9.	23.	39.	87.	44.	4.	2.	0.	2.	2.	0.	1.	0.	0.	0.	1.	
0.	9.	20.	29.	46.	44.	20.	2.	12.	7.	5.	7.	8.	9.	2.	8.		
2.	4.	9.	18.	7.	3.	13.	0.	7.	3.	2.	3.	21.	9.	3.	15.		
2.	2.	0.	1.	0.	1.	0.	0.	0.	0.	0.	2.	14.	2.	0.	1.		
0.	0.	0.	0.	0.	1.	0.	0.	0.	0.	0.	2.	2.	5.	1.	1.		
0.	2.	2.	9.	5.	0.	2.	0.	0.	0.	0.	0.	0.	0.	0.	0.		
13.	23.	18.	25.	56.	29.	10.	3.	3.	4.	3.	1.	4.	3.	4.	3.		
4.	15.	13.	15.	12.	25.	27.	8.	25.	14.	13.	8.	21.	9.	2.	22.		
10.	3.	2.	1.	1.	2.	8.	8.	31.	9.	6.	19.	27.	20.	9.	33.		
1.	2.	1.	0.	0.	1.	1.	1.	5.	2.	1.	2.	12.	14.	4.	5.		
0.	0.	0.	0.	0.	0.	0.	0.	1.	0.	0.	1.	6.	7.	0.	0.		
0.	5.	12.	15.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.		
31.	22.	28.	37.	50.	65.	14.	12.	19.	5.	7.	3.	5.	5.	3.	22.		
42.	19.	9.	17.	14.	26.	62.	22.	72.	37.	30.	26.	42.	26.	26.	100.		
18.	8.	4.	3.	3.	4.	11.	10.	67.	24.	21.	31.	56.	59.	35.	93.		
4.	1.	0.	0.	1.	2.	0.	1.	9.	0.	4.	4.	29.	30.	28.	17.		
1.	4.	0.	0.	0.	0.	0.	0.	1.	0.	1.	1.	13.	27.	6.	0.		
59.	58.	108.	119.	115.	86.	45.	35.	41.	23.	32.	15.	26.	38.	36.	50.		
330.	211.	238.	336.	435.	304.	339.	243.	300.	191.	155.	128.	141.	97.	193.	385.		
521.	349.	251.	278.	331.	308.	478.	466.	708.	425.	287.	211.	301.	355.	542.	928.		
396.	154.	85.	67.	132.	140.	161.	118.	482.	166.	126.	190.	395.	674.	1039.	918.		
73.	27.	13.	11.	32.	26.	14.	11.	99.	16.	16.	22.	225.	448.	543.	242.		
15.	7.	12.	2.	8.	2.	7.	7.	29.	9.	3.	6.	90.	151.	184.	63.		
60.	44.	36.	61.	60.	60.	61.	59.	70.	56.	59.	54.	54.	36.	39.	34.		
235.	164.	150.	219.	283.	200.	345.	311.	435.	320.	281.	187.	173.	138.	170.	203.		
367.	201.	156.	101.	161.	257.	349.	443.	891.	577.	354.	297.	395.	354.	519.	514.		
156.	38.	26.	11.	58.	63.	98.	165.	516.	228.	216.	271.	536.	583.	651.	468.		
23.	8.	8.	4.	12.	21.	16.	11.	64.	19.	18.	30.	78.	111.	89.	43.		
7.	1.	1.	1.	20.	4.	12.	2.	6.	4.	2.	1.	9.	12.	6.	10.		
26.	19.	22.	26.	31.	23.	28.	32.	23.	32.	32.	33.	30.	28.	26.	22.		
99.	38.	34.	29.	34.	52.	81.	90.	134.	141.	156.	117.	85.	66.	94.	97.		
81.	25.	13.	8.	13.	24.	48.	79.	130.	111.	157.	177.	198.	140.	178.	126.		
4.	1.	1.	0.	0.	2.	7.	8.	44.	23.	39.	109.	168.	138.	90.	32.		
1.	0.	0.	0.	0.	0.	0.	0.	0.	3.	0.	18.	24.	18.	0.	5.		
0.	0.	0.	0.	4.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.		
11.	14.	11.	10.	13.	5.	4.	9.	17.	9.	6.	18.	13.	14.	13.	19.		
47.	19.	22.	19.	13.	6.	28.	10.	34.	31.	36.	34.	40.	35.	70.	59.		
16.	5.	4.	2.	2.	2.	8.	6.	10.	21.	51.	70.	69.	44.	92.	85.		
1.	0.	0.	0.	0.	0.	1.	1.	2.	1.	8.	26.	39.	39.	9.	5.		

Attachment J

[illegible]

PAVAN Output**Off Gas Stack to Control Room (Tower 2 320' wind and 316'-33' Delta T Stability Class; distances of 5000 m and 6000 m)**

Copyright (c) 1990 Ergo Computing, Inc. for Lahey

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

RUN DATE: 01/28/03

PRINTOUT OF INPUT CARDS

```
1      00010 01111 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 2      Peach Bottom
Stack Release
3      97.5 meters          10.1-96.3 meters
4
5      Peach Bottom, Tower 2 1984-1988 met data
6      0.500 2584.000 54.300 131.400 97.500
7
8      0.000 0.000 0.000 2.000 6.000 5.000 0.000
9      0.000 0.000 0.000 0.000 3.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
9      6.000 9.000 23.000 39.000 87.000 44.000 4.000 2.000 0.000 2.000 2.000 0.000 1.000 0.000 0.000 1.000
9      0.000 9.000 20.000 29.000 46.000 44.000 20.000 2.000 12.000 7.000 5.000 7.000 8.000 9.000 2.000 8.000
9      2.000 4.000 9.000 18.000 7.000 3.000 13.000 0.000 7.000 3.000 2.000 3.000 21.000 9.000 3.000 15.000
9      2.000 2.000 0.000 1.000 0.000 1.000 0.000 0.000 0.000 0.000 0.000 0.000 2.000 14.000 2.000 0.000 1.000
9      0.000 0.000 0.000 0.000 0.000 1.000 0.000 0.000 0.000 0.000 0.000 0.000 2.000 2.000 5.000 1.000 1.000
9      0.000 2.000 2.000 9.000 5.000 0.000 2.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
9      13.000 23.000 18.000 25.000 56.000 29.000 10.000 3.000 3.000 4.000 3.000 1.000 4.000 3.000 4.000 3.000
9      4.000 15.000 13.000 15.000 12.000 25.000 27.000 8.000 25.000 14.000 13.000 8.000 21.000 9.000 2.000 22.000
9      10.000 3.000 2.000 1.000 1.000 2.000 8.000 8.000 31.000 9.000 6.000 19.000 27.000 20.000 9.000 33.000
9      1.000 2.000 1.000 0.000 0.000 1.000 1.000 1.000 5.000 2.000 1.000 2.000 12.000 14.000 4.000 5.000
9      0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 1.000 0.000 0.000 1.000 6.000 7.000 0.000 0.000
9      0.000 5.000 12.000 15.000 1.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
9      31.000 22.000 28.000 37.000 50.000 65.000 14.000 12.000 19.000 5.000 7.000 3.000 5.000 5.000 3.000 22.000
9      42.000 19.000 9.000 17.000 14.000 26.000 62.000 22.000 72.000 37.000 30.000 26.000 42.000 26.000 26.000 100.000
9      18.000 8.000 4.000 3.000 3.000 4.000 11.000 10.000 67.000 24.000 21.000 31.000 56.000 59.000 35.000 93.000
9      4.000 1.000 0.000 0.000 1.000 2.000 0.000 1.000 9.000 0.000 4.000 4.000 29.000 30.000 28.000 17.000
9      1.000 4.000 0.000 0.000 0.000 0.000 0.000 0.000 1.000 0.000 1.000 1.000 13.000 27.000 6.000 0.000
9      59.000 58.000 108.000 119.000 115.000 86.000 45.000 35.000 41.000 23.000 32.000 15.000 26.000 38.000 36.000 50.000
9      330.000 211.000 238.000 336.000 435.000 304.000 339.000 243.000 300.000 191.000 155.000 128.000 141.000 97.000 193.000 385.000
9      521.000 349.000 251.000 278.000 331.000 308.000 478.000 466.000 708.000 425.000 287.000 211.000 301.000 355.000 542.000 928.000
9      396.000 154.000 85.000 67.000 132.000 140.000 161.000 118.000 482.000 166.000 126.000 190.000 395.000 674.000 *****918.000
9      73.000 27.000 13.000 11.000 32.000 26.000 14.000 11.000 99.000 16.000 16.000 22.000 225.000 448.000 543.000 242.000
9      15.000 7.000 12.000 2.000 8.000 2.000 7.000 29.000 9.000 3.000 6.000 90.000 151.000 184.000 63.000
9      60.000 44.000 36.000 61.000 60.000 60.000 61.000 59.000 70.000 56.000 59.000 54.000 54.000 36.000 39.000 34.000
9      235.000 164.000 150.000 219.000 283.000 200.000 345.000 311.000 435.000 320.000 281.000 187.000 173.000 138.000 170.000 203.000
9      367.000 201.000 156.000 101.000 161.000 257.000 349.000 443.000 891.000 577.000 354.000 297.000 395.000 354.000 519.000 514.000
9      156.000 38.000 26.000 11.000 58.000 63.000 98.000 165.000 516.000 228.000 216.000 271.000 536.000 583.000 651.000 468.000
9      23.000 8.000 8.000 4.000 12.000 21.000 16.000 11.000 64.000 19.000 18.000 30.000 78.000 111.000 89.000 43.000
9      7.000 1.000 1.000 1.000 20.000 4.000 12.000 2.000 6.000 4.000 2.000 1.000 9.000 12.000 6.000 10.000
9      26.000 19.000 22.000 26.000 31.000 23.000 28.000 32.000 23.000 32.000 32.000 33.000 30.000 28.000 26.000 22.000
9      99.000 38.000 34.000 29.000 34.000 52.000 81.000 90.000 134.000 141.000 156.000 117.000 85.000 66.000 94.000 97.000
9      81.000 25.000 13.000 8.000 13.000 24.000 48.000 79.000 130.000 111.000 157.000 177.000 198.000 140.000 178.000 126.000
```

Page 776 of 1411

[illegible]

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 01/28/03

Page 777 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION
ATMOSPHERIC STABILITY CLASS A

WIND SPEED (M/S)

TOWER RELEASE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
0.22 0.24	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.56 1.69	0.000	0.000	0.000	0.000	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.007
3.35 3.61	0.014	0.021	0.054	0.091	0.203	0.103	0.009	0.005	0.000	0.005	0.005	0.000	0.002	0.000	0.000	0.002	0.513
5.59 6.02	0.000	0.021	0.047	0.068	0.107	0.103	0.047	0.005	0.028	0.016	0.012	0.016	0.019	0.021	0.005	0.019	0.532
8.27 8.91	0.005	0.009	0.021	0.042	0.016	0.007	0.030	0.000	0.016	0.007	0.005	0.007	0.049	0.021	0.007	0.035	0.278
10.73 11.56	0.005	0.005	0.000	0.002	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.005	0.033	0.005	0.000	0.002	0.058
24.59 26.49	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.005	0.005	0.012	0.002	0.002	0.028
TOTAL	0.02	0.06	0.12	0.20	0.33	0.22	0.09	0.01	0.04	0.03	0.02	0.03	0.11	0.06	0.01	0.06	1.42

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION
ATMOSPHERIC STABILITY CLASS B

WIND SPEED (M/S)

TOWER RELEASE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
0.22 0.24	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.56 1.69	0.000	0.005	0.005	0.021	0.012	0.000	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.047
3.35 3.61	0.030	0.054	0.042	0.058	0.131	0.068	0.023	0.007	0.007	0.009	0.007	0.002	0.009	0.007	0.009	0.007	0.471
5.59 6.02	0.009	0.035	0.030	0.035	0.028	0.058	0.063	0.019	0.058	0.033	0.030	0.019	0.049	0.021	0.005	0.051	0.543
8.27 8.91	0.023	0.007	0.005	0.002	0.002	0.005	0.019	0.019	0.072	0.021	0.014	0.044	0.063	0.047	0.021	0.077	0.441
10.73 11.56	0.002	0.005	0.002	0.000	0.000	0.002	0.002	0.002	0.012	0.005	0.002	0.005	0.028	0.033	0.009	0.012	0.121
24.59 26.49	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.002	0.014	0.016	0.000	0.000	0.035
TOTAL	0.07	0.10	0.08	0.12	0.17	0.13	0.11	0.05	0.15	0.07	0.05	0.07	0.16	0.12	0.04	0.15	1.66

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION
ATMOSPHERIC STABILITY CLASS C

WIND SPEED (M/S)

TOWER RELEASE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
0.22 0.24	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.56 1.69	0.000	0.012	0.028	0.035	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.077
3.35 3.61	0.072	0.051	0.065	0.086	0.117	0.152	0.033	0.028	0.044	0.012	0.016	0.007	0.012	0.012	0.007	0.051	0.765
5.59 6.02	0.098	0.044	0.021	0.040	0.033	0.061	0.145	0.051	0.168	0.086	0.070	0.061	0.098	0.061	0.061	0.233	1.330
8.27 8.91	0.042	0.019	0.009	0.007	0.007	0.009	0.026	0.023	0.156	0.056	0.049	0.072	0.131	0.138	0.082	0.217	1.043
10.73 11.56	0.009	0.002	0.000	0.000	0.002	0.005	0.000	0.002	0.021	0.000	0.009	0.009	0.068	0.070	0.065	0.040	0.303
24.59 26.49	0.002	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.002	0.002	0.030	0.063	0.014	0.000	0.126
TOTAL	0.22	0.14	0.12	0.17	0.16	0.23	0.20	0.10	0.39	0.15	0.15	0.15	0.34	0.34	0.23	0.54	3.64

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION
ATMOSPHERIC STABILITY CLASS D

WIND SPEED (M/S)

TOWER RELEASE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
0.22 0.24	0.000	0.000	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.005
1.56 1.69	0.138	0.135	0.252	0.278	0.268	0.201	0.105	0.082	0.096	0.054	0.075	0.035	0.061	0.089	0.084	0.117	2.067

Calculation No. PM-1055 Revision 0
Attachment J
Page 778 of 1411

3.35	3.61	0.770	0.492	0.555	0.784	1.015	0.709	0.791	0.567	0.700	0.446	0.362	0.299	0.329	0.226	0.450	0.898	9.391
5.59	6.02	1.215	0.814	0.585	0.648	0.772	0.718	1.115	1.087	1.651	0.991	0.669	0.492	0.702	0.828	1.264	2.165	15.719
8.27	8.91	0.924	0.359	0.198	0.156	0.308	0.327	0.376	0.275	1.124	0.387	0.294	0.443	0.921	1.572	2.423	2.141	12.229
10.73	11.56	0.170	0.063	0.030	0.026	0.075	0.061	0.033	0.026	0.231	0.037	0.037	0.051	0.525	1.045	1.267	0.564	4.241
24.59	26.49	0.035	0.016	0.028	0.005	0.019	0.005	0.016	0.016	0.068	0.021	0.007	0.014	0.210	0.352	0.429	0.147	1.388
TOTAL		3.25	1.88	1.65	1.90	2.46	2.02	2.44	2.05	3.87	1.94	1.44	1.33	2.75	4.11	5.92	6.03	45.04

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION
ATMOSPHERIC STABILITY CLASS E
WIND SPEED (M/S)

TOWER RELEASE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
0.22 0.26	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.014
1.56 1.82	0.140	0.103	0.084	0.142	0.140	0.140	0.142	0.138	0.163	0.131	0.138	0.126	0.126	0.084	0.091	0.079	1.966
3.35 3.89	0.548	0.383	0.350	0.511	0.660	0.467	0.805	0.725	1.015	0.746	0.655	0.436	0.404	0.322	0.397	0.474	8.896
5.59 6.49	0.856	0.469	0.364	0.236	0.376	0.599	0.814	1.033	2.078	1.346	0.826	0.693	0.921	0.826	1.211	1.199	13.846
8.27 9.60	0.364	0.089	0.061	0.026	0.135	0.147	0.229	0.385	1.204	0.532	0.504	0.632	1.250	1.360	1.518	1.092	9.526
10.73 12.46	0.054	0.019	0.019	0.009	0.028	0.049	0.037	0.026	0.149	0.044	0.042	0.070	0.182	0.259	0.208	0.100	1.295
24.59 28.54	0.016	0.002	0.002	0.002	0.047	0.009	0.028	0.005	0.014	0.009	0.005	0.002	0.021	0.028	0.014	0.023	0.229
TOTAL	1.98	1.06	0.88	0.93	1.39	1.41	2.06	2.31	4.62	2.81	2.17	1.96	2.90	2.88	3.44	2.97	35.77

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION
ATMOSPHERIC STABILITY CLASS F
WIND SPEED (M/S)

TOWER RELEASE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
0.22 0.26	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.012
1.56 1.82	0.061	0.044	0.051	0.061	0.072	0.054	0.065	0.075	0.054	0.075	0.075	0.077	0.070	0.065	0.061	0.051	1.010
3.35 3.89	0.231	0.089	0.079	0.068	0.079	0.121	0.189	0.210	0.313	0.329	0.364	0.273	0.198	0.154	0.219	0.226	3.142
5.59 6.49	0.189	0.058	0.030	0.019	0.030	0.056	0.112	0.184	0.303	0.259	0.366	0.413	0.462	0.327	0.415	0.294	3.517
8.27 9.60	0.009	0.002	0.002	0.000	0.000	0.005	0.016	0.019	0.103	0.054	0.091	0.254	0.392	0.322	0.210	0.075	1.553
10.73 12.46	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.007	0.000	0.042	0.056	0.042	0.000	0.012	0.161
24.59 28.54	0.000	0.000	0.000	0.000	0.009	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.012
TOTAL	0.49	0.19	0.16	0.15	0.19	0.24	0.38	0.49	0.77	0.72	0.90	1.06	1.18	0.91	0.91	0.66	9.41

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION
ATMOSPHERIC STABILITY CLASS G
WIND SPEED (M/S)

TOWER RELEASE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
0.22 0.26	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.56 1.82	0.026	0.033	0.026	0.023	0.030	0.012	0.009	0.021	0.040	0.021	0.014	0.042	0.030	0.033	0.030	0.044	0.434
3.35 3.89	0.110	0.044	0.051	0.044	0.030	0.014	0.065	0.023	0.079	0.072	0.084	0.079	0.093	0.082	0.163	0.138	1.173
5.59 6.49	0.037	0.012	0.009	0.005	0.005	0.005	0.019	0.014	0.023	0.049	0.119	0.163	0.161	0.103	0.215	0.198	1.136
8.27 9.60	0.002	0.000	0.000	0.000	0.000	0.000	0.002	0.002	0.005	0.002	0.019	0.061	0.091	0.091	0.021	0.012	0.308
10.73 12.46	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.002	0.005	0.000	0.000	0.009
24.59 28.54	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.002	0.005
TOTAL	0.17	0.09	0.09	0.07	0.07	0.03	0.10	0.06	0.15	0.14	0.24	0.35	0.38	0.31	0.43	0.39	3.06

WIND MEASURED AT 97.5 METERS.

WIND SPEED CORRECTED TO THE RELEASE HEIGHT OF 131.4 METERS.

OVERALL WIND DIRECTION FREQUENCY

WIND DIRECTION:	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
FREQUENCY:	6.2	3.5	3.1	3.5	4.8	4.3	5.4	5.1	10.0	5.9	5.0	5.0	7.8	8.7	11.0	10.8

OVERALL WIND SPEED FREQUENCY AS MEASURED ON THE TOWER:

MAX.WIND SPEED (M/S): 0.224 1.565 3.353 5.588 8.270 10.729 24.587
 WIND SPEED FREQUENCY: 0.03 5.61 24.35 36.62 25.38 6.19 1.82

BUILDING AND RELEASE CHARACTERISTICS:

RELEASE HEIGHT: 131.40 METERS
 MIXING VOLUME COEFFICIENT: 0.50
 BUILDING CROSS-SECTIONAL AREA: 2584.00 SQUARE METERS

BOUNDARY DISTANCES (METERS) FROM THE SOURCE FOR EACH DOWNWIND SECTOR:

DOWNWIND SECTOR	S	SSW	SW	WSW	W	WNW	NW	NNW	N	NNE	NE	ENE	E	ESE	SE	SSE
BOUNDARY 1	5000.	5000.	5000.	5000.	5000.	5000.	5000.	5000.	5000.	5000.	5000.	5000.	5000.	5000.	5000.	5000.
BOUNDARY 2	6000.	6000.	6000.	6000.	6000.	6000.	6000.	6000.	6000.	6000.	6000.	6000.	6000.	6000.	6000.	6000.

DISTANCES AND TERRAIN HEIGHTS (IN METERS) AS A FUNCTION OF THE DOWNWIND SECTOR:

SECTOR	S	SSW	SW	WSW	W	WNW	NW	NNW	N	NNE	NE	ENE	E	ESE	SE	SSE
DISTANCE	500.	500.	500.	500.	500.	500.	500.	500.	500.	500.	500.	500.	500.	500.	500.	500.
ELEVATION	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

THE CONVERSION FACTOR APPLIED TO THE WIND SPEED CLASSES IS 0.447

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 780 of 1411**

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

WINDSPEEDS ADJUSTED TO 131.4 METERS.

PERCENT OF THE TIME A GIVEN WINDSPEED IS LOWER:

WINDSPEED (METER/SEC)	CUMULATIVE FREQUENCY (PERCENT)
0.24	0.00
0.26	0.03
1.69	2.23
1.82	5.64
3.61	16.78
3.89	29.99
6.02	48.11
6.49	66.61
8.91	80.60
9.60	91.99
11.56	96.71
12.46	98.18
26.49	99.76
28.54	100.00

WINDSPEED (INTERPOLATED) (METER/SEC)	CUMULATIVE FREQUENCY (PERCENT)
0.26	0.03
1.77	5.64
3.76	29.99
6.26	66.61
9.22	91.99
11.77	98.18
26.77	100.00

LOG-NORMAL INTERPOLATION PERCENTILES

WINDSPEED (METER/SEC)	CUMULATIVE FREQUENCY (PERCENT)
0.81	1.00
1.30	3.00
1.66	5.00
2.19	10.00
2.61	15.00
3.00	20.00

3.38	25.00
3.76	30.00
4.05	35.00
4.35	40.00
4.66	45.00
4.98	50.00
5.32	55.00
5.70	60.00
6.11	65.00
6.50	70.00
6.90	75.00
7.37	80.00
8.11	85.00
8.78	90.00

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 01/28/03

Page 782 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE S SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)			
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG	WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS			
A	3.6	0.23	5000.	0.	131.		801.3	1000.0	0.0	0.000E+00	0.000E+00	1.090E-07			
A	8.9	0.08	5000.	0.	131.		801.3	1000.0	0.0	0.000E+00	0.000E+00	4.420E-08			
A	11.6	0.08	5000.	0.	131.		801.3	1000.0	0.0	0.000E+00	0.000E+00	3.407E-08			
B	3.6	0.49	5000.	0.	131.		602.6	635.6	0.0	0.000E+00	0.000E+00	2.252E-07			
B	6.0	0.15	5000.	0.	131.		602.6	635.6	0.0	0.000E+00	0.000E+00	1.351E-07			
B	8.9	0.38	5000.	0.	131.		602.6	635.6	0.0	0.000E+00	0.000E+00	9.129E-08			
B	11.6	0.04	5000.	0.	131.		602.6	635.6	0.0	0.000E+00	0.000E+00	7.037E-08			
C	3.6	1.16	5000.	0.	131.		457.6	264.8	0.0	0.000E+00	0.000E+00	6.430E-07			
C	6.0	1.58	5000.	0.	131.		457.6	264.8	0.0	0.000E+00	0.000E+00	3.858E-07			
C	8.9	0.68	5000.	0.	131.		457.6	264.8	0.0	0.000E+00	0.000E+00	2.607E-07			
C	11.6	0.15	5000.	0.	131.		457.6	264.8	0.0	0.000E+00	0.000E+00	2.009E-07			
C	26.5	0.04	5000.	0.	131.		457.6	264.8	0.0	0.000E+00	0.000E+00	8.769E-08			
D	0.2	0.01	5000.	0.	131.		322.2	89.1	0.0	0.000E+00	0.000E+00	1.552E-05			
D	1.7	2.22	5000.	0.	131.		322.2	89.1	0.0	0.000E+00	0.000E+00	2.217E-06			
D	3.6	12.39	5000.	0.	131.		322.2	89.1	0.0	0.000E+00	0.000E+00	1.035E-06			
D	6.0	19.57	5000.	0.	131.		322.2	89.1	0.0	0.000E+00	0.000E+00	6.207E-07			
D	8.9	14.87	5000.	0.	131.		322.2	89.1	0.0	0.000E+00	0.000E+00	4.194E-07			
D	11.6	2.74	5000.	0.	131.		322.2	89.1	0.0	0.000E+00	0.000E+00	3.233E-07			
D	26.5	0.56	5000.	0.	131.		322.2	89.1	0.0	0.000E+00	0.000E+00	1.411E-07			
E	0.3	0.02	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06			
E	1.8	2.25	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06			
E	3.9	8.83	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07			
E	6.5	13.78	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07			
E	9.6	5.86	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07			
E	12.5	0.86	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07			
E	28.5	0.26	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08			
F	0.3	0.01	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06			
F	1.8	0.98	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07			
F	3.9	3.72	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07			
F	6.5	3.04	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07			
F	9.6	0.15	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07			
F	12.5	0.04	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	1.003E-07			
G	1.8	0.41	90000.	0.	131.		1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08			

G	3.9	1.77	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	0.60	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	0.04	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 784 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

S SECTOR BOUNDARY DISTANCE = 5000.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.552E-05	8.835E-06	4.813E-06	2.217E-06	1.262E-06	1.035E-06	6.875E-07	6.430E-07	6.207E-07	5.890E-07
0.005	0.021	0.032	2.248	4.501	16.894	17.870	19.034	38.600	47.425
0.00031	0.00131	0.00201	0.13963	0.27958	1.04931	1.10996	1.18226	2.39751	2.94565
4.194E-07	3.858E-07	3.534E-07	3.233E-07	3.208E-07	2.607E-07	2.388E-07	2.252E-07	2.009E-07	1.925E-07
62.296	63.873	77.656	80.397	84.115	84.791	90.649	91.137	91.288	94.329
3.86933	3.96730	4.82334	4.99361	5.22453	5.26651	5.63039	5.66071	5.67004	5.85898
1.841E-07	1.411E-07	1.351E-07	1.301E-07	1.090E-07	1.003E-07	9.129E-08	8.769E-08	8.032E-08	7.037E-08
95.193	95.756	95.907	96.057	96.282	96.320	96.695	96.733	96.996	97.033
5.91262	5.94761	5.95694	5.96627	5.98027	5.98260	6.00592	6.00826	6.02458	6.02692
6.449E-08	4.420E-08	3.407E-08	3.010E-08	1.806E-08	1.220E-08				
97.446	97.521	97.597	99.362	99.962	100.000				
6.05258	6.05724	6.06190	6.17153	6.20885	6.21119				

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 1.048
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 2.943

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (4) = 4.820
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (5) = 5.221
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (6) = 5.627
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (7) = 5.909
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (8) = 5.962

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
1	1	-11.07347	-16.61019	-1.22524
1	2	-13.78152	-16.88224	-1.34308
1	3	-14.34482	-18.60250	-2.25362
1	4	-14.85564	-18.99944	-2.49237
1	5	-14.95230	-27.95224	-8.00582
1	6	-15.24768	-32.14872	-10.65024
1	7	-15.50797	-134.96260	-76.45212
1	8	-15.85517	NUMXQ(K) = 8	
		3.196E-06	0.062	1.000
		2.137E-06	0.186	3.000
		1.748E-06	0.311	5.000
		1.308E-06	0.621	10.000
		1.093E-06	0.932	15.000
		9.488E-07	1.242	20.000
		8.437E-07	1.553	25.000
		7.643E-07	1.863	30.000
		7.016E-07	2.174	35.000
		6.504E-07	2.484	40.000
		6.075E-07	2.795	45.000
		5.588E-07	3.106	50.000
		5.076E-07	3.416	55.000
		4.643E-07	3.727	60.000
		4.272E-07	4.037	65.000
		3.951E-07	4.348	70.000
		3.670E-07	4.658	75.000
		3.410E-07	4.969	80.000
		3.079E-07	5.280	85.000
		2.457E-07	5.590	90.000
		1.436E-06	0.5	8.05

ANNUAL AVERAGE = 1.63E-08

K= 1 FIVEXQ(K)= 1.436E-06 FIVEPR(K)= 8.050

FUMIGATION X/Q AT THE BOUNDARY: 9.60E-06

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	9.789E-01	8.841E-01	3.613E-01	3.371E-01	2.081E-01	1.693E-02
0.376	1.427	5.032	12.967	65.322	97.183	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 01/28/03

Page 786 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1 96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE SSW SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	**	CHI/Q	VALUES (SEC/CUBIC METER)	
CLASS	METER/SEC	PERCENT	METERS	METERS			METERS		METERS	METERS	METERS		MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS			
A	3.6	0.60	5000.	0.			131.		801.3	1000.0	0.0		0.000E+00	0.000E+00	1.090E-07
A	6.0	0.60	5000.	0.			131.		801.3	1000.0	0.0		0.000E+00	0.000E+00	6.541E-08
A	8.9	0.26	5000.	0.			131.		801.3	1000.0	0.0		0.000E+00	0.000E+00	4.420E-08
A	11.6	0.13	5000.	0.			131.		801.3	1000.0	0.0		0.000E+00	0.000E+00	3.407E-08
B	1.7	0.13	5000.	0.			131.		602.6	635.6	0.0		0.000E+00	0.000E+00	4.825E-07
B	3.6	1.52	5000.	0.			131.		602.6	635.6	0.0		0.000E+00	0.000E+00	2.252E-07
B	6.0	0.99	5000.	0.			131.		602.6	635.6	0.0		0.000E+00	0.000E+00	1.351E-07
B	8.9	0.20	5000.	0.			131.		602.6	635.6	0.0		0.000E+00	0.000E+00	9.129E-08
B	11.6	0.13	5000.	0.			131.		602.6	635.6	0.0		0.000E+00	0.000E+00	7.037E-08
C	1.7	0.33	5000.	0.			131.		457.6	264.8	0.0		0.000E+00	0.000E+00	1.378E-06
C	3.6	1.46	5000.	0.			131.		457.6	264.8	0.0		0.000E+00	0.000E+00	6.430E-07
C	6.0	1.26	5000.	0.			131.		457.6	264.8	0.0		0.000E+00	0.000E+00	3.858E-07
C	8.9	0.53	5000.	0.			131.		457.6	264.8	0.0		0.000E+00	0.000E+00	2.607E-07
C	11.6	0.07	5000.	0.			131.		457.6	264.8	0.0		0.000E+00	0.000E+00	2.009E-07
C	26.5	0.26	5000.	0.			131.		457.6	264.8	0.0		0.000E+00	0.000E+00	8.769E-08
D	0.2	0.01	5000.	0.			131.		322.2	89.1	0.0		0.000E+00	0.000E+00	1.552E-05
D	1.7	3.84	5000.	0.			131.		322.2	89.1	0.0		0.000E+00	0.000E+00	2.217E-06
D	3.6	13.96	5000.	0.			131.		322.2	89.1	0.0		0.000E+00	0.000E+00	1.035E-06
D	6.0	23.09	5000.	0.			131.		322.2	89.1	0.0		0.000E+00	0.000E+00	6.207E-07
D	8.9	10.19	5000.	0.			131.		322.2	89.1	0.0		0.000E+00	0.000E+00	4.194E-07
D	11.6	1.79	5000.	0.			131.		322.2	89.1	0.0		0.000E+00	0.000E+00	3.233E-07
D	26.5	0.46	5000.	0.			131.		322.2	89.1	0.0		0.000E+00	0.000E+00	1.411E-07
E	0.3	0.02	9000.	0.			131.		389.6	74.2	0.0		0.000E+00	0.000E+00	8.835E-06
E	1.8	2.91	9000.	0.			131.		389.6	74.2	0.0		0.000E+00	0.000E+00	1.262E-06
E	3.9	10.85	9000.	0.			131.		389.6	74.2	0.0		0.000E+00	0.000E+00	5.890E-07
E	6.5	13.30	9000.	0.			131.		389.6	74.2	0.0		0.000E+00	0.000E+00	3.534E-07
E	9.6	2.51	9000.	0.			131.		389.6	74.2	0.0		0.000E+00	0.000E+00	2.388E-07
E	12.5	0.53	9000.	0.			131.		389.6	74.2	0.0		0.000E+00	0.000E+00	1.841E-07
E	28.5	0.07	9000.	0.			131.		389.6	74.2	0.0		0.000E+00	0.000E+00	8.032E-08
F	0.3	0.01	90000.	0.			131.		1000.0	92.1	0.0		0.000E+00	0.000E+00	4.813E-06
F	1.8	1.26	90000.	0.			131.		1000.0	92.1	0.0		0.000E+00	0.000E+00	6.875E-07
F	3.9	2.51	90000.	0.			131.		1000.0	92.1	0.0		0.000E+00	0.000E+00	3.208E-07
F	6.5	1.65	90000.	0.			131.		1000.0	92.1	0.0		0.000E+00	0.000E+00	1.925E-07
F	9.6	0.07	90000.	0.			131.		1000.0	92.1	0.0		0.000E+00	0.000E+00	1.301E-07

G	1.8	0.93	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	1.26	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	0.33	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 788 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1 96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

SSW SECTOR BOUNDARY DISTANCE = 5000.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED. THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR. THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.552E-05	8.835E-06	4.813E-06	2.217E-06	1.378E-06	1.262E-06	1.035E-06	6.875E-07	6.430E-07	6.207E-07
0.009	0.029	0.044	3.881	4.211	7.122	21.080	22.337	23.793	46.880
0.00031	0.00104	0.00155	0.13683	0.14850	0.25113	0.74329	0.78761	0.83892	1.65297
5.890E-07	4.825E-07	4.194E-07	3.858E-07	3.534E-07	3.233E-07	3.208E-07	2.607E-07	2.388E-07	2.252E-07
57.729	57.861	68.048	69.305	82.602	84.388	86.902	87.431	89.945	91.466
2.03551	2.04017	2.39938	2.44370	2.91254	2.97552	3.06415	3.08281	3.17145	3.22510
2.009E-07	1.925E-07	1.841E-07	1.411E-07	1.351E-07	1.301E-07	1.090E-07	9.129E-08	8.769E-08	8.032E-08
91.533	93.186	93.716	94.179	95.171	95.237	95.832	96.031	96.295	96.362
3.22743	3.28574	3.30440	3.32073	3.35572	3.35805	3.37904	3.38604	3.39537	3.39770
7.037E-08	6.541E-08	6.449E-08	4.420E-08	3.407E-08	3.010E-08	1.806E-08			
96.494	97.089	98.015	98.280	98.412	99.669	100.000			
3.40237	3.42336	3.45602	3.46535	3.47001	3.51433	3.52599			

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED. THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (2)= 0.137
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (3)= 0.742

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (4) = 2.033
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (5) = 2.910
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (6) = 3.061
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (7) = 3.222
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (8) = 3.301

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
2	1	-11.07347	-16.83918	-1.27489
2	2	-13.01938	-17.09619	-1.36067
2	3	-13.78152	-17.30774	-1.44751
2	4	-14.34482	-21.19314	-3.34569
2	5	-14.85564	-23.04319	-4.32237
2	6	-14.95230	-44.07473	-15.55797
2	7	-15.30636	-49.59945	-18.54575
2	8	-15.50797	NUMXQ(K) = 8	
		3.652E-06	0.035	1.000
		2.448E-06	0.106	3.000
		1.993E-06	0.176	5.000
		1.471E-06	0.353	10.000
		1.219E-06	0.529	15.000
		1.062E-06	0.705	20.000
		9.453E-07	0.881	25.000
		8.566E-07	1.058	30.000
		7.866E-07	1.234	35.000
		7.296E-07	1.410	40.000
		6.820E-07	1.587	45.000
		6.414E-07	1.763	50.000
		6.063E-07	1.939	55.000
		5.583E-07	2.116	60.000
		4.990E-07	2.292	65.000
		4.491E-07	2.468	70.000
		4.068E-07	2.644	75.000
		3.704E-07	2.821	80.000
		3.347E-07	2.997	85.000
		2.519E-07	3.173	90.000
		1.252E-06	0.5	14.18

ANNUAL AVERAGE = 1.10E-08

K= 2 FIVEXQ(K)= 1.252E-06 FIVEPR(K)=14.180

FUMIGATION X/Q AT THE BOUNDARY: 9.60E-06

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	9.789E-01	8.841E-01	3.613E-01	3.371E-01	2.081E-01	1.693E-02
1.588	4.565	8.467	13.973	67.300	97.486	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 01/28/03

Page 790 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1 96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE SW SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	3.6	1.73	5000.	0.	131.		801.3	1000.0	0.0	0.000E+00	0.000E+00	1.090E-07		
A	6.0	1.50	5000.	0.	131.		801.3	1000.0	0.0	0.000E+00	0.000E+00	6.541E-08		
A	8.9	0.68	5000.	0.	131.		801.3	1000.0	0.0	0.000E+00	0.000E+00	4.420E-08		
B	1.7	0.15	5000.	0.	131.		602.6	635.6	0.0	0.000E+00	0.000E+00	4.825E-07		
B	3.6	1.35	5000.	0.	131.		602.6	635.6	0.0	0.000E+00	0.000E+00	2.252E-07		
B	6.0	0.98	5000.	0.	131.		602.6	635.6	0.0	0.000E+00	0.000E+00	1.351E-07		
B	8.9	0.15	5000.	0.	131.		602.6	635.6	0.0	0.000E+00	0.000E+00	9.129E-08		
B	11.6	0.08	5000.	0.	131.		602.6	635.6	0.0	0.000E+00	0.000E+00	7.037E-08		
C	1.7	0.90	5000.	0.	131.		457.6	264.8	0.0	0.000E+00	0.000E+00	1.378E-06		
C	3.6	2.10	5000.	0.	131.		457.6	264.8	0.0	0.000E+00	0.000E+00	6.430E-07		
C	6.0	0.68	5000.	0.	131.		457.6	264.8	0.0	0.000E+00	0.000E+00	3.858E-07		
C	8.9	0.30	5000.	0.	131.		457.6	264.8	0.0	0.000E+00	0.000E+00	2.607E-07		
D	0.2	0.02	5000.	0.	131.		322.2	89.1	0.0	0.000E+00	0.000E+00	1.552E-05		
D	1.7	8.10	5000.	0.	131.		322.2	89.1	0.0	0.000E+00	0.000E+00	2.217E-06		
D	3.6	17.86	5000.	0.	131.		322.2	89.1	0.0	0.000E+00	0.000E+00	1.035E-06		
D	6.0	18.83	5000.	0.	131.		322.2	89.1	0.0	0.000E+00	0.000E+00	6.207E-07		
D	8.9	6.38	5000.	0.	131.		322.2	89.1	0.0	0.000E+00	0.000E+00	4.194E-07		
D	11.6	0.98	5000.	0.	131.		322.2	89.1	0.0	0.000E+00	0.000E+00	3.233E-07		
D	26.5	0.90	5000.	0.	131.		322.2	89.1	0.0	0.000E+00	0.000E+00	1.411E-07		
E	0.3	0.02	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06		
E	1.8	2.70	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06		
E	3.9	11.25	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07		
E	6.5	11.71	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07		
E	9.6	1.95	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07		
E	12.5	0.60	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07		
E	28.5	0.08	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08		
F	0.3	0.02	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06		
F	1.8	1.65	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07		
F	3.9	2.55	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07		
F	6.5	0.98	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07		
F	9.6	0.08	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07		
G	1.8	0.83	90000.	0.	131.		1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08		
G	3.9	1.65	90000.	0.	131.		1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08		

G	6.5	0.30	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
---	-----	------	--------	----	------	--------	------	-----	-----------	-----------	-----------

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 792 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1 96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

SW SECTOR BOUNDARY DISTANCE = 5000.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.552E-05	8.835E-06	4.813E-06	2.217E-06	1.378E-06	1.262E-06	1.035E-06	6.875E-07	6.430E-07	6.207E-07
0.018	0.038	0.057	8.160	9.060	11.762	29.619	31.270	33.371	52.204
0.00057	0.00117	0.00176	0.25367	0.28166	0.36563	0.92077	0.97209	1.03740	1.62286
5.890E-07	4.825E-07	4.194E-07	3.858E-07	3.534E-07	3.233E-07	3.208E-07	2.607E-07	2.388E-07	2.252E-07
63.459	63.609	69.987	70.662	82.367	83.343	85.894	86.194	88.145	89.495
1.97274	1.97741	2.17567	2.19666	2.56054	2.59086	2.67017	2.67950	2.74014	2.78213
1.925E-07	1.841E-07	1.411E-07	1.351E-07	1.301E-07	1.090E-07	9.129E-08	8.032E-08	7.037E-08	6.541E-08
90.471	91.071	91.972	92.947	93.022	94.748	94.898	94.973	95.048	96.549
2.81245	2.83111	2.85910	2.88942	2.89176	2.94541	2.95007	2.95240	2.95474	3.00139
6.449E-08	4.420E-08	3.010E-08	1.806E-08						
97.374	98.049	99.700	100.000						
3.02704	3.04804	3.09935	3.10868						

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED.

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.253
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 0.920

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (4)= 1.971
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (5)= 2.558
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (6)= 2.668
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (7)= 2.779
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (8)= 2.828

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
3	1	-11.07347	-16.45701	-1.22654
3	2	-13.01938	-17.81836	-1.71227
3	3	-13.78152	-18.24187	-1.89191
3	4	-14.34482	-23.93557	-4.65604
3	5	-14.85564	-25.28885	-5.34998
3	6	-14.95230	-53.33327	-19.86519
3	7	-15.30636	-66.01868	-26.49202
3	8	-15.50797	NUMXQ(K) = 8	

4.739E-06	0.031	1.000
3.237E-06	0.093	3.000
2.679E-06	0.155	5.000
1.979E-06	0.311	10.000
1.568E-06	0.466	15.000
1.320E-06	0.622	20.000
1.151E-06	0.777	25.000
1.025E-06	0.933	30.000
9.190E-07	1.088	35.000
8.343E-07	1.243	40.000
7.650E-07	1.399	45.000
7.071E-07	1.554	50.000
6.578E-07	1.710	55.000
6.152E-07	1.865	60.000
5.625E-07	2.021	65.000
4.872E-07	2.176	70.000
4.256E-07	2.332	75.000
3.746E-07	2.487	80.000
3.287E-07	2.642	85.000
2.110E-07	2.798	90.000
1.504E-06	0.5	16.08

ANNUAL AVERAGE = 1.22E-08

K= 3 FIVEXQ(K)= 1.504E-06 FIVEPR(K)=16.084

FUMIGATION X/Q AT THE BOUNDARY: 9.60E-06

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	9.789E-01	8.841E-01	3.613E-01	3.371E-01	2.081E-01	1.693E-02
3.902	6.603	10.580	15.851	68.917	97.224	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 01/28/03

Page 794 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1 96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE WSW SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)			
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG	WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS			
A	3.6	2.58	5000.	0.	131.		801.3	1000.0	0.0	0.000E+00	0.000E+00	1.090E-07			
A	6.0	1.92	5000.	0.	131.		801.3	1000.0	0.0	0.000E+00	0.000E+00	6.541E-08			
A	8.9	1.19	5000.	0.	131.		801.3	1000.0	0.0	0.000E+00	0.000E+00	4.420E-08			
A	11.6	0.07	5000.	0.	131.		801.3	1000.0	0.0	0.000E+00	0.000E+00	3.407E-08			
B	1.7	0.59	5000.	0.	131.		602.6	635.6	0.0	0.000E+00	0.000E+00	4.825E-07			
B	3.6	1.65	5000.	0.	131.		602.6	635.6	0.0	0.000E+00	0.000E+00	2.252E-07			
B	6.0	0.99	5000.	0.	131.		602.6	635.6	0.0	0.000E+00	0.000E+00	1.351E-07			
B	8.9	0.07	5000.	0.	131.		602.6	635.6	0.0	0.000E+00	0.000E+00	9.129E-08			
C	1.7	0.99	5000.	0.	131.		457.6	264.8	0.0	0.000E+00	0.000E+00	1.378E-06			
C	3.6	2.44	5000.	0.	131.		457.6	264.8	0.0	0.000E+00	0.000E+00	6.430E-07			
C	6.0	1.12	5000.	0.	131.		457.6	264.8	0.0	0.000E+00	0.000E+00	3.858E-07			
C	8.9	0.20	5000.	0.	131.		457.6	264.8	0.0	0.000E+00	0.000E+00	2.607E-07			
D	0.2	0.02	5000.	0.	131.		322.2	89.1	0.0	0.000E+00	0.000E+00	1.552E-05			
D	1.7	7.86	5000.	0.	131.		322.2	89.1	0.0	0.000E+00	0.000E+00	2.217E-06			
D	3.6	22.19	5000.	0.	131.		322.2	89.1	0.0	0.000E+00	0.000E+00	1.035E-06			
D	6.0	18.36	5000.	0.	131.		322.2	89.1	0.0	0.000E+00	0.000E+00	6.207E-07			
D	8.9	4.43	5000.	0.	131.		322.2	89.1	0.0	0.000E+00	0.000E+00	4.194E-07			
D	11.6	0.73	5000.	0.	131.		322.2	89.1	0.0	0.000E+00	0.000E+00	3.233E-07			
D	26.5	0.13	5000.	0.	131.		322.2	89.1	0.0	0.000E+00	0.000E+00	1.411E-07			
E	0.3	0.03	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06			
E	1.8	4.03	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06			
E	3.9	14.46	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07			
E	6.5	6.67	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07			
E	9.6	0.73	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07			
E	12.5	0.26	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07			
E	28.5	0.07	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08			
F	0.3	0.02	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06			
F	1.8	1.72	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07			
F	3.9	1.92	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07			
F	6.5	0.53	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07			
G	1.8	0.66	90000.	0.	131.		1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08			
G	3.9	1.25	90000.	0.	131.		1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08			
G	6.5	0.13	90000.	0.	131.		1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08			

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 795 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

WSW SECTOR BOUNDARY DISTANCE = 5000.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED. THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR. THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.552E-05	8.835E-06	4.813E-06	2.217E-06	1.378E-06	1.262E-06	1.035E-06	6.875E-07	6.430E-07	6.207E-07
0.018	0.046	0.066	7.926	8.917	12.946	35.139	36.856	39.300	57.662
0.00063	0.00164	0.00234	0.27991	0.31490	0.45718	1.24091	1.30156	1.38786	2.03630
5.890E-07	4.825E-07	4.194E-07	3.858E-07	3.534E-07	3.233E-07	3.208E-07	2.607E-07	2.388E-07	2.252E-07
72.127	72.721	77.147	78.270	84.941	85.667	87.583	87.781	88.507	90.159
2.54712	2.56812	2.72440	2.76405	2.99963	3.02529	3.09293	3.09993	3.12559	3.18390
1.925E-07	1.841E-07	1.411E-07	1.351E-07	1.090E-07	9.129E-08	8.032E-08	6.541E-08	6.449E-08	4.420E-08
90.687	90.951	91.083	92.074	94.650	94.716	94.782	96.697	97.358	98.547
3.20256	3.21189	3.21656	3.25155	3.34251	3.34485	3.34718	3.41482	3.43815	3.48013
3.407E-08	3.010E-08	1.806E-08							
98.613	99.868	100.000							
3.48247	3.52678	3.53145							

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED. THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.280
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 1.239

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (4)= 2.545
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (5)= 3.090
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (6)= 3.181

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
4	1	-11.07347	-16.39500	-1.21828
4	2	-13.01938	-17.03303	-1.44855
4	3	-13.78152	-18.10773	-1.92733
4	4	-14.34482	-28.35265	-7.17470
4	5	-14.95230	-66.28492	-27.48405
4	6	-15.30636	NUMXQ(K)= 6	
		4.698E-06	0.035	1.000
		3.205E-06	0.106	3.000
		2.651E-06	0.177	5.000
		1.984E-06	0.353	10.000
		1.625E-06	0.530	15.000
		1.402E-06	0.706	20.000
		1.246E-06	0.883	25.000
		1.129E-06	1.059	30.000
		1.037E-06	1.236	35.000
		9.387E-07	1.413	40.000
		8.580E-07	1.589	45.000
		7.907E-07	1.766	50.000
		7.336E-07	1.942	55.000
		6.844E-07	2.119	60.000
		6.415E-07	2.295	65.000
		6.037E-07	2.472	70.000
		5.221E-07	2.649	75.000
		4.270E-07	2.825	80.000
		3.528E-07	3.002	85.000
		2.301E-07	3.178	90.000
		1.672E-06	0.5	14.16

ANNUAL AVERAGE = 1.49E-08

K= 4 FIVEXQ(K)= 1.672E-06 FIVEPR(K)=14.158

FUMIGATION X/Q AT THE BOUNDARY: 9.60E-06

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	9.789E-01	8.841E-01	3.613E-01	3.371E-01	2.081E-01	1.693E-02
5.746	9.049	13.804	17.985	71.702	97.952	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 01/28/03

Page 797 of 1411

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE W SECTOR.

STABILITY CLASS	WINDSPEED METER/SEC	FREQUENCY PERCENT	DISTANCE METERS	TERRAIN METERS	HT METERS	EFF PLUME METERS	HT METERS	SIGMA-Y METERS	SIGMA-Z METERS	MEANDER-SY METERS	** CHI/Q VALUES (SEC/CUBIC METER)	MEANDER	BLDG WAKE	USED
AT 131.4 METERS											CA=1292.SQ.METERS			
A	1.7	0.15	5000.	0.	131.	801.3	1000.0	0.0	0.000E+00	0.000E+00	2.336E-07			
A	3.6	4.26	5000.	0.	131.	801.3	1000.0	0.0	0.000E+00	0.000E+00	1.090E-07			
A	6.0	2.25	5000.	0.	131.	801.3	1000.0	0.0	0.000E+00	0.000E+00	6.541E-08			
A	8.9	0.34	5000.	0.	131.	801.3	1000.0	0.0	0.000E+00	0.000E+00	4.420E-08			
B	1.7	0.24	5000.	0.	131.	602.6	635.6	0.0	0.000E+00	0.000E+00	4.825E-07			
B	3.6	2.74	5000.	0.	131.	602.6	635.6	0.0	0.000E+00	0.000E+00	2.252E-07			
B	6.0	0.59	5000.	0.	131.	602.6	635.6	0.0	0.000E+00	0.000E+00	1.351E-07			
B	8.9	0.05	5000.	0.	131.	602.6	635.6	0.0	0.000E+00	0.000E+00	9.129E-08			
C	1.7	0.05	5000.	0.	131.	457.6	264.8	0.0	0.000E+00	0.000E+00	1.378E-06			
C	3.6	2.45	5000.	0.	131.	457.6	264.8	0.0	0.000E+00	0.000E+00	6.430E-07			
C	6.0	0.68	5000.	0.	131.	457.6	264.8	0.0	0.000E+00	0.000E+00	3.858E-07			
C	8.9	0.15	5000.	0.	131.	457.6	264.8	0.0	0.000E+00	0.000E+00	2.607E-07			
C	11.6	0.05	5000.	0.	131.	457.6	264.8	0.0	0.000E+00	0.000E+00	2.009E-07			
D	0.2	0.01	5000.	0.	131.	322.2	89.1	0.0	0.000E+00	0.000E+00	1.552E-05			
D	1.7	5.63	5000.	0.	131.	322.2	89.1	0.0	0.000E+00	0.000E+00	2.217E-06			
D	3.6	21.28	5000.	0.	131.	322.2	89.1	0.0	0.000E+00	0.000E+00	1.035E-06			
D	6.0	16.19	5000.	0.	131.	322.2	89.1	0.0	0.000E+00	0.000E+00	6.207E-07			
D	8.9	6.46	5000.	0.	131.	322.2	89.1	0.0	0.000E+00	0.000E+00	4.194E-07			
D	11.6	1.57	5000.	0.	131.	322.2	89.1	0.0	0.000E+00	0.000E+00	3.233E-07			
D	26.5	0.39	5000.	0.	131.	322.2	89.1	0.0	0.000E+00	0.000E+00	1.411E-07			
E	0.3	0.02	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06			
E	1.8	2.94	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06			
E	3.9	13.85	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07			
E	6.5	7.88	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07			
E	9.6	2.84	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07			
E	12.5	0.59	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07			
E	28.5	0.98	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08			
F	0.3	0.02	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06			
F	1.8	1.52	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07			
F	3.9	1.66	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07			
F	6.5	0.64	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07			
F	28.5	0.20	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.375E-08			
G	1.8	0.64	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08			

G	3.9	0.64	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	0.10	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 799 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1 96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

W SECTOR BOUNDARY DISTANCE = 5000.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.552E-05	8.835E-06	4.813E-06	2.217E-06	1.378E-06	1.262E-06	1.035E-06	6.875E-07	6.430E-07	6.207E-07
0.013	0.034	0.051	5.677	5.726	8.661	29.943	31.459	33.906	50.099
0.00061	0.00160	0.00244	0.27068	0.27301	0.41296	1.42761	1.49992	1.61654	2.38861
5.890E-07	4.825E-07	4.194E-07	3.858E-07	3.534E-07	3.233E-07	3.208E-07	2.607E-07	2.388E-07	2.336E-07
63.944	64.189	70.646	71.331	79.208	80.773	82.437	82.584	85.421	85.568
3.04871	3.06038	3.36827	3.40092	3.77646	3.85110	3.93041	3.93741	4.07269	4.07969
2.252E-07	2.009E-07	1.925E-07	1.841E-07	1.411E-07	1.351E-07	1.090E-07	9.129E-08	8.032E-08	6.541E-08
88.307	88.356	88.992	89.579	89.971	90.558	94.814	94.863	95.842	98.092
4.21031	4.21264	4.24297	4.27096	4.28962	4.31761	4.52054	4.52287	4.56952	4.67682
6.449E-08	4.420E-08	4.375E-08	3.010E-08	1.806E-08					
98.728	99.070	99.266	99.902	100.000					
4.70714	4.72347	4.73280	4.76312	4.76778					

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.270
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 1.426

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (4)= 3.046
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (5)= 3.927
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (6)= 4.207
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (7)= 4.517

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
5	1	-11.07347	-16.41560	-1.22091
5	2	-13.01938	-16.60268	-1.28817
5	3	-13.78152	-17.68601	-1.78282
5	4	-14.34482	-24.25434	-5.28761
5	5	-14.95230	-34.39073	-11.04951
5	6	-15.30636	-52.63703	-21.61379
5	7	-16.03172	NUMXQ(K)= 7	
		4.195E-06	0.048	1.000
		2.833E-06	0.143	3.000
		2.331E-06	0.238	5.000
		1.738E-06	0.477	10.000
		1.446E-06	0.715	15.000
		1.262E-06	0.954	20.000
		1.132E-06	1.192	25.000
		1.033E-06	1.430	30.000
		9.262E-07	1.669	35.000
		8.408E-07	1.907	40.000
		7.709E-07	2.146	45.000
		7.123E-07	2.384	50.000
		6.623E-07	2.622	55.000
		6.192E-07	2.861	60.000
		5.669E-07	3.099	65.000
		4.759E-07	3.337	70.000
		4.036E-07	3.576	75.000
		3.452E-07	3.814	80.000
		2.742E-07	4.053	85.000
		1.857E-07	4.291	90.000
		1.701E-06	0.5	10.49

ANNUAL AVERAGE = 1.73E-08

K= 5 FIVEXQ(K)= 1.701E-06 FIVEPR(K)=10.487

FUMIGATION X/Q AT THE BOUNDARY: 9.60E-06

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	9.789E-01	8.841E-01	3.613E-01	3.371E-01	2.081E-01	1.693E-02
6.996	10.616	13.992	18.021	69.549	98.630	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 01/28/03

Page 801 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE WNW SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)				
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED		
AT 131.4 METERS												CA=1292.SQ.METERS				
A	3.6	2.40	5000.	0.	131.	801.3	1000.0	0.0	0.000E+00	0.000E+00	1.090E-07					
A	6.0	2.40	5000.	0.	131.	801.3	1000.0	0.0	0.000E+00	0.000E+00	6.541E-08					
A	8.9	0.16	5000.	0.	131.	801.3	1000.0	0.0	0.000E+00	0.000E+00	4.420E-08					
A	11.6	0.05	5000.	0.	131.	801.3	1000.0	0.0	0.000E+00	0.000E+00	3.407E-08					
A	26.5	0.05	5000.	0.	131.	801.3	1000.0	0.0	0.000E+00	0.000E+00	1.487E-08					
B	3.6	1.58	5000.	0.	131.	602.6	635.6	0.0	0.000E+00	0.000E+00	2.252E-07					
B	6.0	1.36	5000.	0.	131.	602.6	635.6	0.0	0.000E+00	0.000E+00	1.351E-07					
B	8.9	0.11	5000.	0.	131.	602.6	635.6	0.0	0.000E+00	0.000E+00	9.129E-08					
B	11.6	0.05	5000.	0.	131.	602.6	635.6	0.0	0.000E+00	0.000E+00	7.037E-08					
C	3.6	3.54	5000.	0.	131.	457.6	264.8	0.0	0.000E+00	0.000E+00	6.430E-07					
C	6.0	1.42	5000.	0.	131.	457.6	264.8	0.0	0.000E+00	0.000E+00	3.858E-07					
C	8.9	0.22	5000.	0.	131.	457.6	264.8	0.0	0.000E+00	0.000E+00	2.607E-07					
C	11.6	0.11	5000.	0.	131.	457.6	264.8	0.0	0.000E+00	0.000E+00	2.009E-07					
D	0.2	0.01	5000.	0.	131.	322.2	89.1	0.0	0.000E+00	0.000E+00	1.552E-05					
D	1.7	4.69	5000.	0.	131.	322.2	89.1	0.0	0.000E+00	0.000E+00	2.217E-06					
D	3.6	16.58	5000.	0.	131.	322.2	89.1	0.0	0.000E+00	0.000E+00	1.035E-06					
D	6.0	16.79	5000.	0.	131.	322.2	89.1	0.0	0.000E+00	0.000E+00	6.207E-07					
D	8.9	7.63	5000.	0.	131.	322.2	89.1	0.0	0.000E+00	0.000E+00	4.194E-07					
D	11.6	1.42	5000.	0.	131.	322.2	89.1	0.0	0.000E+00	0.000E+00	3.233E-07					
D	26.5	0.11	5000.	0.	131.	322.2	89.1	0.0	0.000E+00	0.000E+00	1.411E-07					
E	0.3	0.02	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06					
E	1.8	3.27	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06					
E	3.9	10.91	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07					
E	6.5	14.01	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07					
E	9.6	3.44	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07					
E	12.5	1.15	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07					
E	28.5	0.22	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08					
F	0.3	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06					
F	1.8	1.25	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07					
F	3.9	2.84	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07					
F	6.5	1.31	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07					
F	9.6	0.11	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07					
F	28.5	0.05	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.375E-08					

Calculation No. PM-1055 Revision 0**Attachment J****Page 802 of 1411**

G	1.8	0.27	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	0.33	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	0.11	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 01/28/03

Page 803 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

SITE EXCLUSION BOUNDARY CALCULATIONS:

WNW SECTOR BOUNDARY DISTANCE = 5000.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.552E-05	8.835E-06	4.813E-06	2.217E-06	1.262E-06	1.035E-06	6.875E-07	6.430E-07	6.207E-07	5.890E-07
0.011	0.034	0.048	4.738	8.010	24.586	25.841	29.385	46.180	57.086
0.00045	0.00145	0.00207	0.20267	0.34262	1.05170	1.10535	1.25697	1.97538	2.44189
4.194E-07	3.858E-07	3.534E-07	3.233E-07	3.208E-07	2.607E-07	2.388E-07	2.252E-07	2.009E-07	1.925E-07
64.720	66.137	80.151	81.569	84.405	84.623	88.058	89.639	89.749	91.057
2.76844	2.82909	3.42855	3.48919	3.61048	3.61981	3.76676	3.83441	3.83907	3.89505
1.841E-07	1.411E-07	1.351E-07	1.301E-07	1.090E-07	9.129E-08	8.032E-08	7.037E-08	6.541E-08	6.449E-08
92.202	92.311	93.675	93.784	96.183	96.292	96.510	96.565	98.964	99.237
3.94403	3.94870	4.00701	4.01168	4.11431	4.11897	4.12830	4.13064	4.23327	4.24493
4.420E-08	4.375E-08	3.407E-08	3.010E-08	1.806E-08	1.487E-08				
99.400	99.455	99.509	99.836	99.945	100.000				
4.25193	4.25426	4.25659	4.27059	4.27525	4.27759				

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.202
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 1.050

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (4)= 2.439
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (5)= 3.425
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (6)= 3.607
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (7)= 3.831
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (8)= 3.941
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (9)= 4.111

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
6	1	-11.07347	-16.59526	-1.24408
6	2	-13.01938	-16.88623	-1.34531
6	3	-13.78152	-17.63477	-1.66966
6	4	-14.34482	-21.10955	-3.43311
6	5	-14.85564	-22.36490	-4.12224
6	6	-14.95230	-38.04827	-12.84396
6	7	-15.30636	-42.72429	-15.48485
6	8	-15.50797	-62.35400	-26.65326
6	9	-16.03172	NUMXQ(K)= 9	

3.929E-06	0.043	1.000
2.643E-06	0.128	3.000
2.167E-06	0.214	5.000
1.595E-06	0.428	10.000
1.320E-06	0.642	15.000
1.147E-06	0.856	20.000
1.024E-06	1.069	25.000
9.111E-07	1.283	30.000
8.237E-07	1.497	35.000
7.535E-07	1.711	40.000
6.955E-07	1.925	45.000
6.466E-07	2.139	50.000
6.048E-07	2.353	55.000
5.475E-07	2.567	60.000
4.861E-07	2.780	65.000
4.349E-07	2.994	70.000
3.915E-07	3.208	75.000
3.544E-07	3.422	80.000
3.079E-07	3.636	85.000
2.188E-07	3.850	90.000

1.485E-06	0.5	11.69
-----------	-----	-------

ANNUAL AVERAGE = 1.40E-08

K= 6 FIVEXQ(K)= 1.485E-06 FIVEPR(K)=11.689

FUMIGATION X/Q AT THE BOUNDARY: 9.60E-06

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	9.789E-01	8.841E-01	3.613E-01	3.371E-01	2.081E-01	1.693E-02
5.071	8.179	13.469	19.045	66.278	99.291	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 01/28/03

Page 805 of 1411

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1 96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE NW SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)			
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG	WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS			
A	3.6	0.17	5000.	0.	131.		801.3	1000.0	0.0	0.000E+00	0.000E+00	1.090E-07			
A	6.0	0.87	5000.	0.	131.		801.3	1000.0	0.0	0.000E+00	0.000E+00	6.541E-08			
A	8.9	0.56	5000.	0.	131.		801.3	1000.0	0.0	0.000E+00	0.000E+00	4.420E-08			
B	1.7	0.09	5000.	0.	131.		602.6	635.6	0.0	0.000E+00	0.000E+00	4.825E-07			
B	3.6	0.43	5000.	0.	131.		602.6	635.6	0.0	0.000E+00	0.000E+00	2.252E-07			
B	6.0	1.17	5000.	0.	131.		602.6	635.6	0.0	0.000E+00	0.000E+00	1.351E-07			
B	8.9	0.35	5000.	0.	131.		602.6	635.6	0.0	0.000E+00	0.000E+00	9.129E-08			
B	11.6	0.04	5000.	0.	131.		602.6	635.6	0.0	0.000E+00	0.000E+00	7.037E-08			
C	3.6	0.61	5000.	0.	131.		457.6	264.8	0.0	0.000E+00	0.000E+00	6.430E-07			
C	6.0	2.69	5000.	0.	131.		457.6	264.8	0.0	0.000E+00	0.000E+00	3.858E-07			
C	8.9	0.48	5000.	0.	131.		457.6	264.8	0.0	0.000E+00	0.000E+00	2.607E-07			
D	0.2	0.00	5000.	0.	131.		322.2	89.1	0.0	0.000E+00	0.000E+00	1.552E-05			
D	1.7	1.95	5000.	0.	131.		322.2	89.1	0.0	0.000E+00	0.000E+00	2.217E-06			
D	3.6	14.72	5000.	0.	131.		322.2	89.1	0.0	0.000E+00	0.000E+00	1.035E-06			
D	6.0	20.76	5000.	0.	131.		322.2	89.1	0.0	0.000E+00	0.000E+00	6.207E-07			
D	8.9	6.99	5000.	0.	131.		322.2	89.1	0.0	0.000E+00	0.000E+00	4.194E-07			
D	11.6	0.61	5000.	0.	131.		322.2	89.1	0.0	0.000E+00	0.000E+00	3.233E-07			
D	26.5	0.30	5000.	0.	131.		322.2	89.1	0.0	0.000E+00	0.000E+00	1.411E-07			
E	0.3	0.02	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06			
E	1.8	2.65	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06			
E	3.9	14.98	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07			
E	6.5	15.16	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07			
E	9.6	4.26	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07			
E	12.5	0.69	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07			
E	28.5	0.52	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08			
F	0.3	0.01	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06			
F	1.8	1.22	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07			
F	3.9	3.52	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07			
F	6.5	2.08	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07			
F	9.6	0.30	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07			
G	1.8	0.17	90000.	0.	131.		1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08			
G	3.9	1.22	90000.	0.	131.		1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08			
G	6.5	0.35	90000.	0.	131.		1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08			

G	9.6	0.04	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08
---	-----	------	--------	----	------	--------	------	-----	-----------	-----------	-----------

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 807 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

NW SECTOR BOUNDARY DISTANCE = 5000.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.552E-05	8.835E-06	4.813E-06	2.217E-06	1.262E-06	1.035E-06	6.875E-07	6.430E-07	6.207E-07	5.890E-07
0.004	0.023	0.037	1.991	4.640	19.361	20.577	21.185	41.942	56.923
0.00024	0.00125	0.00200	0.10697	0.24925	1.03998	1.10529	1.13794	2.25289	3.05761
4.825E-07	4.194E-07	3.858E-07	3.534E-07	3.233E-07	3.208E-07	2.607E-07	2.388E-07	2.252E-07	1.925E-07
57.010	64.001	66.694	81.849	82.457	85.974	86.452	90.707	91.141	93.226
3.06228	3.43781	3.58243	4.39648	4.42914	4.61807	4.64373	4.87231	4.89564	5.00760
1.841E-07	1.411E-07	1.351E-07	1.301E-07	1.090E-07	9.129E-08	8.032E-08	7.037E-08	6.541E-08	6.449E-08
93.921	94.225	95.397	95.701	95.875	96.222	96.743	96.787	97.655	97.829
5.04492	5.06125	5.12423	5.14055	5.14989	5.16855	5.19654	5.19887	5.24552	5.25485
4.420E-08	3.010E-08	1.806E-08	1.220E-08						
98.393	99.609	99.957	100.000						
5.28517	5.35048	5.36914	5.37148						

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 1.039
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 3.055

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (4)= 4.393
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (5)= 4.614
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (6)= 4.869
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (7)= 5.041

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
7	1	-11.07347	-16.54720	-1.19621
7	2	-13.78152	-16.74663	-1.28246
7	3	-14.34482	-20.10755	-3.07705
7	4	-14.85564	-21.91845	-4.13804
7	5	-14.95230	-34.28811	-11.48588
7	6	-15.24768	-40.84837	-15.44327
7	7	-15.50797	NUMXQ(K)= 7	
		3.256E-06	0.054	1.000
		2.208E-06	0.161	3.000
		1.820E-06	0.269	5.000
		1.377E-06	0.537	10.000
		1.159E-06	0.806	15.000
		1.018E-06	1.074	20.000
		9.124E-07	1.343	25.000
		8.319E-07	1.611	30.000
		7.679E-07	1.880	35.000
		7.154E-07	2.149	40.000
		6.713E-07	2.417	45.000
		6.335E-07	2.686	50.000
		6.006E-07	2.954	55.000
		5.481E-07	3.223	60.000
		4.906E-07	3.491	65.000
		4.422E-07	3.760	70.000
		4.009E-07	4.029	75.000
		3.653E-07	4.297	80.000
		3.281E-07	4.566	85.000
		2.494E-07	4.834	90.000
		1.419E-06	0.5	9.31

ANNUAL AVERAGE = 1.45E-08

K= 7 FIVEXQ(K)= 1.419E-06 FIVEPR(K)= 9.308

FUMIGATION X/Q AT THE BOUNDARY: 9.60E-06

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	9.789E-01	8.841E-01	3.613E-01	3.371E-01	2.081E-01	1.693E-02
1.607	3.691	7.469	14.605	59.944	98.220	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 01/28/03

Page 809 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE NNW SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	3.6	0.09	5000.	0.	131.		801.3	1000.0	0.0	0.000E+00	0.000E+00	1.090E-07		
A	6.0	0.09	5000.	0.	131.		801.3	1000.0	0.0	0.000E+00	0.000E+00	6.541E-08		
B	3.6	0.14	5000.	0.	131.		602.6	635.6	0.0	0.000E+00	0.000E+00	2.252E-07		
B	6.0	0.37	5000.	0.	131.		602.6	635.6	0.0	0.000E+00	0.000E+00	1.351E-07		
B	8.9	0.37	5000.	0.	131.		602.6	635.6	0.0	0.000E+00	0.000E+00	9.129E-08		
B	11.6	0.05	5000.	0.	131.		602.6	635.6	0.0	0.000E+00	0.000E+00	7.037E-08		
C	3.6	0.55	5000.	0.	131.		457.6	264.8	0.0	0.000E+00	0.000E+00	6.430E-07		
C	6.0	1.01	5000.	0.	131.		457.6	264.8	0.0	0.000E+00	0.000E+00	3.858E-07		
C	8.9	0.46	5000.	0.	131.		457.6	264.8	0.0	0.000E+00	0.000E+00	2.607E-07		
C	11.6	0.05	5000.	0.	131.		457.6	264.8	0.0	0.000E+00	0.000E+00	2.009E-07		
D	0.2	0.00	5000.	0.	131.		322.2	89.1	0.0	0.000E+00	0.000E+00	1.552E-05		
D	1.7	1.61	5000.	0.	131.		322.2	89.1	0.0	0.000E+00	0.000E+00	2.217E-06		
D	3.6	11.17	5000.	0.	131.		322.2	89.1	0.0	0.000E+00	0.000E+00	1.035E-06		
D	6.0	21.42	5000.	0.	131.		322.2	89.1	0.0	0.000E+00	0.000E+00	6.207E-07		
D	8.9	5.42	5000.	0.	131.		322.2	89.1	0.0	0.000E+00	0.000E+00	4.194E-07		
D	11.6	0.51	5000.	0.	131.		322.2	89.1	0.0	0.000E+00	0.000E+00	3.233E-07		
D	26.5	0.32	5000.	0.	131.		322.2	89.1	0.0	0.000E+00	0.000E+00	1.411E-07		
E	0.3	0.02	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06		
E	1.8	2.71	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06		
E	3.9	14.29	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07		
E	6.5	20.36	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07		
E	9.6	7.58	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07		
E	12.5	0.51	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07		
E	28.5	0.09	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08		
F	0.3	0.02	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06		
F	1.8	1.47	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07		
F	3.9	4.14	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07		
F	6.5	3.63	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07		
F	9.6	0.37	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07		
G	1.8	0.41	90000.	0.	131.		1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08		
G	3.9	0.46	90000.	0.	131.		1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08		
G	6.5	0.28	90000.	0.	131.		1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08		
G	9.6	0.05	90000.	0.	131.		1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08		

Calculation No. PM-1055 Revision 0

Attachment J

Page 810 of 1411

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1 96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

NNW SECTOR BOUNDARY DISTANCE = 5000.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.552E-05	8.835E-06	4.813E-06	2.217E-06	1.262E-06	1.035E-06	6.875E-07	6.430E-07	6.207E-07	5.890E-07
0.004	0.023	0.040	1.648	4.360	15.528	16.999	17.550	38.967	53.260
0.00018	0.00116	0.00203	0.08366	0.22128	0.78809	0.86273	0.89072	1.97767	2.70309
4.194E-07	3.858E-07	3.534E-07	3.233E-07	3.208E-07	2.607E-07	2.388E-07	2.252E-07	2.009E-07	1.925E-07
58.683	59.694	80.054	80.559	84.696	85.155	92.739	92.876	92.922	96.553
2.97833	3.02964	4.06295	4.08861	4.29854	4.32186	4.70673	4.71373	4.71606	4.90033
1.841E-07	1.411E-07	1.351E-07	1.301E-07	1.090E-07	9.129E-08	8.032E-08	7.037E-08	6.541E-08	6.449E-08
97.059	97.380	97.748	98.116	98.208	98.575	98.667	98.713	98.805	99.219
4.92599	4.94231	4.96097	4.97963	4.98430	5.00296	5.00762	5.00996	5.01462	5.03561
3.010E-08	1.806E-08	1.220E-08							
99.678	99.954	100.000							
5.05894	5.07293	5.07527							

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 2.700
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 4.060

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 4.295
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 4.703
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(6)= 4.897

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
8	1	-11.07347	-16.67805	-1.21096
8	2	-14.34482	-19.72460	-2.79213
8	3	-14.85564	-21.24304	-3.66288
8	4	-14.95230	-26.72820	-6.85671
8	5	-15.24768	-33.85044	-11.11045
8	6	-15.46313		

NUMXQ(K)= 6

3.057E-06	0.051	1.000
2.067E-06	0.152	3.000
1.701E-06	0.254	5.000
1.285E-06	0.508	10.000
1.080E-06	0.761	15.000
9.496E-07	1.015	20.000
8.566E-07	1.269	25.000
7.856E-07	1.523	30.000
7.289E-07	1.776	35.000
6.822E-07	2.030	40.000
6.427E-07	2.284	45.000
6.088E-07	2.538	50.000
5.665E-07	2.791	55.000
5.092E-07	3.045	60.000
4.610E-07	3.299	65.000
4.199E-07	3.553	70.000
3.845E-07	3.806	75.000
3.537E-07	4.060	80.000
3.172E-07	4.314	85.000
2.634E-07	4.568	90.000

1.293E-06	0.5	9.85
-----------	-----	------

ANNUAL AVERAGE = 1.22E-08

K= 8 FIVEXQ(K)= 1.293E-06 FIVEPR(K)= 9.852

FUMIGATION X/Q AT THE BOUNDARY: 9.60E-06

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	9.789E-01	8.841E-01	3.613E-01	3.371E-01	2.081E-01	1.693E-02
0.184	1.103	3.171	12.793	53.241	98.805	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 812 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE N SECTOR.

STABILITY CLASS	WINDSPEED METER/SEC	FREQUENCY PERCENT	DISTANCE METERS	TERRAIN METERS	HT EFF METERS	PLUME HT METERS	SIGMA-Y METERS	SIGMA-Z METERS	MEANDER-SY METERS	** CHI/Q VALUES (SEC/CUBIC METER)		
										MEANDER	BLDG WAKE	USED
AT 131.4 METERS										CA=1292.SQ.METERS		
A	6.0	0.28	5000.	0.	131.	801.3	1000.0	0.0	0.000E+00	0.000E+00	6.541E-08	
A	8.9	0.16	5000.	0.	131.	801.3	1000.0	0.0	0.000E+00	0.000E+00	4.420E-08	
B	3.6	0.07	5000.	0.	131.	602.6	635.6	0.0	0.000E+00	0.000E+00	2.252E-07	
B	6.0	0.58	5000.	0.	131.	602.6	635.6	0.0	0.000E+00	0.000E+00	1.351E-07	
B	8.9	0.72	5000.	0.	131.	602.6	635.6	0.0	0.000E+00	0.000E+00	9.129E-08	
B	11.6	0.12	5000.	0.	131.	602.6	635.6	0.0	0.000E+00	0.000E+00	7.037E-08	
B	26.5	0.02	5000.	0.	131.	602.6	635.6	0.0	0.000E+00	0.000E+00	3.071E-08	
C	3.6	0.44	5000.	0.	131.	457.6	264.8	0.0	0.000E+00	0.000E+00	6.430E-07	
C	6.0	1.68	5000.	0.	131.	457.6	264.8	0.0	0.000E+00	0.000E+00	3.858E-07	
C	8.9	1.56	5000.	0.	131.	457.6	264.8	0.0	0.000E+00	0.000E+00	2.607E-07	
C	11.6	0.21	5000.	0.	131.	457.6	264.8	0.0	0.000E+00	0.000E+00	2.009E-07	
C	26.5	0.02	5000.	0.	131.	457.6	264.8	0.0	0.000E+00	0.000E+00	8.769E-08	
D	0.2	0.00	5000.	0.	131.	322.2	89.1	0.0	0.000E+00	0.000E+00	1.552E-05	
D	1.7	0.96	5000.	0.	131.	322.2	89.1	0.0	0.000E+00	0.000E+00	2.217E-06	
D	3.6	7.00	5000.	0.	131.	322.2	89.1	0.0	0.000E+00	0.000E+00	1.035E-06	
D	6.0	16.51	5000.	0.	131.	322.2	89.1	0.0	0.000E+00	0.000E+00	6.207E-07	
D	8.9	11.24	5000.	0.	131.	322.2	89.1	0.0	0.000E+00	0.000E+00	4.194E-07	
D	11.6	2.31	5000.	0.	131.	322.2	89.1	0.0	0.000E+00	0.000E+00	3.233E-07	
D	26.5	0.68	5000.	0.	131.	322.2	89.1	0.0	0.000E+00	0.000E+00	1.411E-07	
E	0.3	0.01	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06	
E	1.8	1.63	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06	
E	3.9	10.14	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07	
E	6.5	20.78	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07	
E	9.6	12.03	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07	
E	12.5	1.49	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07	
E	28.5	0.14	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08	
F	0.3	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06	
F	1.8	0.54	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07	
F	3.9	3.13	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07	
F	6.5	3.03	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07	
F	9.6	1.03	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07	
G	1.8	0.40	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08	
G	3.9	0.79	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08	

G	6.5	0.23	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	0.05	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 814 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

SITE EXCLUSION BOUNDARY CALCULATIONS:

N SECTOR BOUNDARY DISTANCE = 5000.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.552E-05	8.835E-06	4.813E-06	2.217E-06	1.262E-06	1.035E-06	6.875E-07	6.430E-07	6.207E-07	5.890E-07
0.002	0.014	0.020	0.976	2.609	9.605	10.142	10.585	27.096	37.241
0.00022	0.00138	0.00200	0.09763	0.26091	0.96067	1.01431	1.05863	2.71006	3.72471
4.194E-07	3.858E-07	3.534E-07	3.233E-07	3.208E-07	2.607E-07	2.388E-07	2.252E-07	2.009E-07	1.925E-07
48.482	50.162	70.941	73.250	76.375	77.938	89.972	90.042	90.252	93.283
4.84898	5.01692	7.09520	7.32612	7.63868	7.79496	8.99854	9.00554	9.02654	9.32976
1.841E-07	1.411E-07	1.351E-07	1.301E-07	9.129E-08	8.769E-08	8.032E-08	7.037E-08	6.541E-08	6.449E-08
94.776	95.452	96.035	97.061	97.784	97.808	97.948	98.064	98.344	98.741
9.47904	9.54669	9.60500	9.70763	9.77994	9.78227	9.79627	9.80793	9.83592	9.87557
4.420E-08	3.071E-08	3.010E-08	1.806E-08	1.220E-08					
98.904	98.927	99.720	99.953	100.000					
9.89190	9.89423	9.97354	9.99686	10.00153					

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 3.721
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 7.091

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (4) = 7.635
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (5) = 8.995
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (6) = 9.476
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (7) = 9.704

K I XQSAVE(K,I) XQINT(K,I) XQSLOP(K,I)
 9 1 -11.07347 -16.42065 -1.16361
 9 2 -14.34482 -17.23833 -1.62195
 9 3 -14.85564 -18.50069 -2.48127
 9 4 -14.95230 -19.69819 -3.31865
 9 5 -15.24768 -27.26647 -8.96216
 9 6 -15.50797 -49.41096 -25.84037
 9 7 -15.85517 NUMXQ(K) = 7

2.694E-06	0.100	1.000
1.809E-06	0.300	3.000
1.481E-06	0.500	5.000
1.108E-06	1.000	10.000
9.235E-07	1.500	15.000
8.066E-07	2.000	20.000
7.232E-07	2.500	25.000
6.595E-07	3.000	30.000
6.087E-07	3.501	35.000
5.584E-07	4.001	40.000
5.104E-07	4.501	45.000
4.703E-07	5.001	50.000
4.360E-07	5.501	55.000
4.063E-07	6.001	60.000
3.804E-07	6.501	65.000
3.574E-07	7.001	70.000
3.286E-07	7.501	75.000
2.955E-07	8.001	80.000
2.649E-07	8.501	85.000
2.384E-07	9.001	90.000

1.481E-06 0.5 5.00

ANNUAL AVERAGE = 2.00E-08

K= 9 FIVEXQ(K) = 1.481E-06 FIVEPR(K) = 4.999

FUMIGATION X/Q AT THE BOUNDARY: 9.60E-06

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	9.789E-01	8.841E-01	3.613E-01	3.371E-01	2.081E-01	1.693E-02
0.443	1.959	5.877	13.603	52.296	98.531	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 01/28/03

Page 816 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1 96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE NNE SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	3.6	0.08	5000.	0.	131.		801.3	1000.0	0.0	0.000E+00	0.000E+00	1.090E-07		
A	6.0	0.28	5000.	0.	131.		801.3	1000.0	0.0	0.000E+00	0.000E+00	6.541E-08		
A	8.9	0.12	5000.	0.	131.		801.3	1000.0	0.0	0.000E+00	0.000E+00	4.420E-08		
B	3.6	0.16	5000.	0.	131.		602.6	635.6	0.0	0.000E+00	0.000E+00	2.252E-07		
B	6.0	0.56	5000.	0.	131.		602.6	635.6	0.0	0.000E+00	0.000E+00	1.351E-07		
B	8.9	0.36	5000.	0.	131.		602.6	635.6	0.0	0.000E+00	0.000E+00	9.129E-08		
B	11.6	0.08	5000.	0.	131.		602.6	635.6	0.0	0.000E+00	0.000E+00	7.037E-08		
C	3.6	0.20	5000.	0.	131.		457.6	264.8	0.0	0.000E+00	0.000E+00	6.430E-07		
C	6.0	1.47	5000.	0.	131.		457.6	264.8	0.0	0.000E+00	0.000E+00	3.858E-07		
C	8.9	0.95	5000.	0.	131.		457.6	264.8	0.0	0.000E+00	0.000E+00	2.607E-07		
D	0.2	0.00	5000.	0.	131.		322.2	89.1	0.0	0.000E+00	0.000E+00	1.552E-05		
D	1.7	0.91	5000.	0.	131.		322.2	89.1	0.0	0.000E+00	0.000E+00	2.217E-06		
D	3.6	7.60	5000.	0.	131.		322.2	89.1	0.0	0.000E+00	0.000E+00	1.035E-06		
D	6.0	16.91	5000.	0.	131.		322.2	89.1	0.0	0.000E+00	0.000E+00	6.207E-07		
D	8.9	6.60	5000.	0.	131.		322.2	89.1	0.0	0.000E+00	0.000E+00	4.194E-07		
D	11.6	0.64	5000.	0.	131.		322.2	89.1	0.0	0.000E+00	0.000E+00	3.233E-07		
D	26.5	0.36	5000.	0.	131.		322.2	89.1	0.0	0.000E+00	0.000E+00	1.411E-07		
E	0.3	0.02	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06		
E	1.8	2.23	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06		
E	3.9	12.73	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07		
E	6.5	22.95	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07		
E	9.6	9.07	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07		
E	12.5	0.76	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07		
E	28.5	0.16	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08		
F	0.3	0.01	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06		
F	1.8	1.27	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07		
F	3.9	5.61	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07		
F	6.5	4.42	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07		
F	9.6	0.91	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07		
F	12.5	0.12	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	1.003E-07		
G	1.8	0.36	90000.	0.	131.		1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08		
G	3.9	1.23	90000.	0.	131.		1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08		
G	6.5	0.84	90000.	0.	131.		1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08		

G	9.6	0.04	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08
---	-----	------	--------	----	------	--------	------	-----	-----------	-----------	-----------

Calculation No. PM-1055 Revision 0

Attachment J

Page 818 of 1411

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

NNE SECTOR BOUNDARY DISTANCE = 5000.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.552E-05	8.835E-06	4.813E-06	2.217E-06	1.262E-06	1.035E-06	6.875E-07	6.430E-07	6.207E-07	5.890E-07
0.002	0.018	0.033	0.948	3.175	10.773	12.046	12.245	29.152	41.881
0.00012	0.00105	0.00191	0.05556	0.18618	0.63169	0.70634	0.71800	1.70932	2.45573
4.194E-07	3.858E-07	3.534E-07	3.233E-07	3.208E-07	2.607E-07	2.388E-07	2.252E-07	1.925E-07	1.841E-07
48.485	49.957	72.910	73.546	79.155	80.110	89.180	89.339	93.755	94.510
2.84293	2.92923	4.27510	4.31242	4.64130	4.69729	5.22910	5.23843	5.49734	5.54166
1.411E-07	1.351E-07	1.301E-07	1.090E-07	1.003E-07	9.129E-08	8.032E-08	7.037E-08	6.541E-08	6.449E-08
94.868	95.425	96.340	96.420	96.539	96.897	97.056	97.136	97.414	97.772
5.56265	5.59531	5.64895	5.65362	5.66062	5.68161	5.69094	5.69561	5.71193	5.73293
4.420E-08	3.010E-08	1.806E-08	1.220E-08						
97.892	99.125	99.960	100.000						
5.73992	5.81223	5.86121	5.86355						

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 2.453
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 4.272

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (4)= 4.638
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (5)= 5.225
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (6)= 5.494
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (7)= 5.538

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
10	1	-11.07347	-16.68901	-1.19114
10	2	-14.34482	-18.39806	-2.05955
10	3	-14.85564	-19.12338	-2.48124
10	4	-14.95230	-23.56408	-5.12287
10	5	-15.24768	-29.45826	-8.75367
10	6	-15.46313	-33.50119	-11.28244
10	7	-15.50797	NUMXQ(K)= 7	
		2.698E-06	0.059	1.000
		1.828E-06	0.176	3.000
		1.505E-06	0.293	5.000
		1.138E-06	0.586	10.000
		9.559E-07	0.880	15.000
		8.404E-07	1.173	20.000
		7.579E-07	1.466	25.000
		6.948E-07	1.759	30.000
		6.444E-07	2.052	35.000
		6.029E-07	2.345	40.000
		5.528E-07	2.639	45.000
		5.030E-07	2.932	50.000
		4.611E-07	3.225	55.000
		4.254E-07	3.518	60.000
		3.945E-07	3.811	65.000
		3.676E-07	4.104	70.000
		3.419E-07	4.398	75.000
		3.126E-07	4.691	80.000
		2.692E-07	4.984	85.000
		2.296E-07	5.277	90.000
		1.215E-06	0.5	8.53

ANNUAL AVERAGE = 1.15E-08

K= 10 FIVEXQ(K)= 1.215E-06 FIVEPR(K)= 8.527

FUMIGATION X/Q AT THE BOUNDARY: 9.60E-06

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	9.789E-01	8.841E-01	3.613E-01	3.371E-01	2.081E-01	1.693E-02
0.477	1.631	4.256	16.603	49.623	97.534	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 01/28/03

Page 820 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1 96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE NE SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	3.6	0.09	5000.	0.	131.		801.3	1000.0	0.0	0.000E+00	0.000E+00	1.090E-07		
A	6.0	0.23	5000.	0.	131.		801.3	1000.0	0.0	0.000E+00	0.000E+00	6.541E-08		
A	8.9	0.09	5000.	0.	131.		801.3	1000.0	0.0	0.000E+00	0.000E+00	4.420E-08		
B	3.6	0.14	5000.	0.	131.		602.6	635.6	0.0	0.000E+00	0.000E+00	2.252E-07		
B	6.0	0.61	5000.	0.	131.		602.6	635.6	0.0	0.000E+00	0.000E+00	1.351E-07		
B	8.9	0.28	5000.	0.	131.		602.6	635.6	0.0	0.000E+00	0.000E+00	9.129E-08		
B	11.6	0.05	5000.	0.	131.		602.6	635.6	0.0	0.000E+00	0.000E+00	7.037E-08		
C	3.6	0.33	5000.	0.	131.		457.6	264.8	0.0	0.000E+00	0.000E+00	6.430E-07		
C	6.0	1.41	5000.	0.	131.		457.6	264.8	0.0	0.000E+00	0.000E+00	3.858E-07		
C	8.9	0.99	5000.	0.	131.		457.6	264.8	0.0	0.000E+00	0.000E+00	2.607E-07		
C	11.6	0.19	5000.	0.	131.		457.6	264.8	0.0	0.000E+00	0.000E+00	2.009E-07		
C	26.5	0.05	5000.	0.	131.		457.6	264.8	0.0	0.000E+00	0.000E+00	8.769E-08		
D	0.2	0.00	5000.	0.	131.		322.2	89.1	0.0	0.000E+00	0.000E+00	1.552E-05		
D	1.7	1.50	5000.	0.	131.		322.2	89.1	0.0	0.000E+00	0.000E+00	2.217E-06		
D	3.6	7.28	5000.	0.	131.		322.2	89.1	0.0	0.000E+00	0.000E+00	1.035E-06		
D	6.0	13.48	5000.	0.	131.		322.2	89.1	0.0	0.000E+00	0.000E+00	6.207E-07		
D	8.9	5.92	5000.	0.	131.		322.2	89.1	0.0	0.000E+00	0.000E+00	4.194E-07		
D	11.6	0.75	5000.	0.	131.		322.2	89.1	0.0	0.000E+00	0.000E+00	3.233E-07		
D	26.5	0.14	5000.	0.	131.		322.2	89.1	0.0	0.000E+00	0.000E+00	1.411E-07		
E	0.3	0.02	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06		
E	1.8	2.77	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06		
E	3.9	13.19	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07		
E	6.5	16.62	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07		
E	9.6	10.14	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07		
E	12.5	0.85	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07		
E	28.5	0.09	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08		
F	0.3	0.02	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06		
F	1.8	1.50	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07		
F	3.9	7.32	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07		
F	6.5	7.37	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07		
F	9.6	1.83	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07		
G	1.8	0.28	90000.	0.	131.		1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08		
G	3.9	1.69	90000.	0.	131.		1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08		

G	6.5	2.39	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	0.38	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 822 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

NE SECTOR BOUNDARY DISTANCE = 5000.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.552E-05	8.835E-06	4.813E-06	2.217E-06	1.262E-06	1.035E-06	6.875E-07	6.430E-07	6.207E-07	5.890E-07
0.003	0.023	0.040	1.543	4.313	11.591	13.093	13.422	26.897	40.090
0.00017	0.00115	0.00201	0.07665	0.21427	0.57581	0.65045	0.66678	1.33621	1.99165
4.194E-07	3.858E-07	3.534E-07	3.233E-07	3.208E-07	2.607E-07	2.388E-07	2.252E-07	2.009E-07	1.925E-07
46.006	47.414	64.035	64.786	72.111	73.097	83.238	83.379	83.567	90.938
2.28555	2.35553	3.18124	3.21856	3.58243	3.63142	4.13524	4.14224	4.15157	4.51778
1.841E-07	1.411E-07	1.351E-07	1.301E-07	1.090E-07	9.129E-08	8.769E-08	8.032E-08	7.037E-08	6.541E-08
91.783	91.924	92.535	94.366	94.460	94.741	94.788	94.882	94.929	95.164
4.55976	4.56676	4.59708	4.68805	4.69272	4.70671	4.70904	4.71371	4.71604	4.72770
6.449E-08	4.420E-08	3.010E-08	1.806E-08	1.220E-08					
95.446	95.540	97.230	99.624	100.000					
4.74170	4.74636	4.83034	4.94929	4.96795					

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 1.990
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 3.579

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (4)= 4.132
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (5)= 4.514
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (6)= 4.556

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
11	1	-11.07347	-16.94075	-1.26266
11	2	-14.34482	-19.25861	-2.39007
11	3	-14.95230	-22.99686	-4.46487
11	4	-15.24768	-24.21664	-5.16767
11	5	-15.46313	-32.72462	-10.19039
11	6	-15.50797	NUMXQ(K)= 6	
		2.807E-06	0.050	1.000
		1.868E-06	0.149	3.000
		1.525E-06	0.248	5.000
		1.139E-06	0.497	10.000
		9.508E-07	0.745	15.000
		8.317E-07	0.994	20.000
		7.472E-07	1.242	25.000
		6.829E-07	1.490	30.000
		6.318E-07	1.739	35.000
		5.897E-07	1.987	40.000
		5.250E-07	2.236	45.000
		4.719E-07	2.484	50.000
		4.278E-07	2.732	55.000
		3.906E-07	2.981	60.000
		3.588E-07	3.229	65.000
		3.314E-07	3.478	70.000
		2.962E-07	3.726	75.000
		2.593E-07	3.974	80.000
		2.270E-07	4.223	85.000
		1.975E-07	4.471	90.000
		1.136E-06	0.5	10.06

ANNUAL AVERAGE = 9.46E-09

K= 11 FIVEXQ(K)= 1.136E-06 FIVEPR(K)=10.065

FUMIGATION X/Q AT THE BOUNDARY: 9.60E-06

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	9.789E-01	8.841E-01	3.613E-01	3.371E-01	2.081E-01	1.693E-02
0.423	1.502	4.460	22.507	51.573	95.258	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 824 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE ENE SECTOR.

STABILITY CLASS	WINDSPEED METER/SEC	FREQUENCY PERCENT	DISTANCE METERS	TERRAIN METERS	HT EFF METERS	PLUME HT METERS	SIGMA-Y METERS	SIGMA-Z METERS	MEANDER-SY METERS	** CHI/Q VALUES (SEC/CUBIC METER)		
										MEANDER	BLDG WAKE	USED
AT 131.4 METERS										CA=1292.SQ.METERS		
A	6.0	0.33	5000.	0.	131.	801.3	1000.0	0.0	0.000E+00	0.000E+00	6.541E-08	
A	8.9	0.14	5000.	0.	131.	801.3	1000.0	0.0	0.000E+00	0.000E+00	4.420E-08	
A	11.6	0.09	5000.	0.	131.	801.3	1000.0	0.0	0.000E+00	0.000E+00	3.407E-08	
A	26.5	0.09	5000.	0.	131.	801.3	1000.0	0.0	0.000E+00	0.000E+00	1.487E-08	
B	3.6	0.05	5000.	0.	131.	602.6	635.6	0.0	0.000E+00	0.000E+00	2.252E-07	
B	6.0	0.38	5000.	0.	131.	602.6	635.6	0.0	0.000E+00	0.000E+00	1.351E-07	
B	8.9	0.89	5000.	0.	131.	602.6	635.6	0.0	0.000E+00	0.000E+00	9.129E-08	
B	11.6	0.09	5000.	0.	131.	602.6	635.6	0.0	0.000E+00	0.000E+00	7.037E-08	
B	26.5	0.05	5000.	0.	131.	602.6	635.6	0.0	0.000E+00	0.000E+00	3.071E-08	
C	3.6	0.14	5000.	0.	131.	457.6	264.8	0.0	0.000E+00	0.000E+00	6.430E-07	
C	6.0	1.22	5000.	0.	131.	457.6	264.8	0.0	0.000E+00	0.000E+00	3.858E-07	
C	8.9	1.46	5000.	0.	131.	457.6	264.8	0.0	0.000E+00	0.000E+00	2.607E-07	
C	11.6	0.19	5000.	0.	131.	457.6	264.8	0.0	0.000E+00	0.000E+00	2.009E-07	
C	26.5	0.05	5000.	0.	131.	457.6	264.8	0.0	0.000E+00	0.000E+00	8.769E-08	
D	0.2	0.00	5000.	0.	131.	322.2	89.1	0.0	0.000E+00	0.000E+00	1.552E-05	
D	1.7	0.71	5000.	0.	131.	322.2	89.1	0.0	0.000E+00	0.000E+00	2.217E-06	
D	3.6	6.02	5000.	0.	131.	322.2	89.1	0.0	0.000E+00	0.000E+00	1.035E-06	
D	6.0	9.93	5000.	0.	131.	322.2	89.1	0.0	0.000E+00	0.000E+00	6.207E-07	
D	8.9	8.94	5000.	0.	131.	322.2	89.1	0.0	0.000E+00	0.000E+00	4.194E-07	
D	11.6	1.03	5000.	0.	131.	322.2	89.1	0.0	0.000E+00	0.000E+00	3.233E-07	
D	26.5	0.28	5000.	0.	131.	322.2	89.1	0.0	0.000E+00	0.000E+00	1.411E-07	
E	0.3	0.02	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06	
E	1.8	2.54	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06	
E	3.9	8.80	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07	
E	6.5	13.97	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07	
E	9.6	12.75	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07	
E	12.5	1.41	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07	
E	28.5	0.05	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08	
F	0.3	0.02	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06	
F	1.8	1.55	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07	
F	3.9	5.50	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07	
F	6.5	8.33	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07	
F	9.6	5.13	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07	
F	12.5	0.85	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.003E-07	

G	1.8	0.85	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	1.60	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	3.29	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	1.22	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08
G	12.5	0.05	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	9.405E-09

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 826 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

ENE SECTOR BOUNDARY DISTANCE = 5000.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.552E-05	8.835E-06	4.813E-06	2.217E-06	1.262E-06	1.035E-06	6.875E-07	6.430E-07	6.207E-07	5.890E-07
0.002	0.020	0.038	0.743	3.283	9.305	10.857	10.998	20.924	29.721
0.00008	0.00098	0.00186	0.03685	0.16281	0.46137	0.53834	0.54534	1.03751	1.47369
4.194E-07	3.858E-07	3.534E-07	3.233E-07	3.208E-07	2.607E-07	2.388E-07	2.252E-07	2.009E-07	1.925E-07
38.658	39.881	53.853	54.888	60.391	61.850	74.598	74.645	74.833	83.159
1.91687	1.97751	2.67027	2.72159	2.99449	3.06680	3.69892	3.70125	3.71058	4.12344
1.841E-07	1.411E-07	1.351E-07	1.301E-07	1.003E-07	9.129E-08	8.769E-08	8.032E-08	7.037E-08	6.541E-08
84.570	84.853	85.229	90.357	91.203	92.097	92.144	92.191	92.285	92.615
4.19341	4.20741	4.22607	4.48031	4.52230	4.56661	4.56895	4.57128	4.57594	4.59227
6.449E-08	4.420E-08	3.407E-08	3.071E-08	3.010E-08	1.806E-08	1.487E-08	1.220E-08	9.405E-09	
93.461	93.602	93.696	93.744	95.343	98.636	98.730	99.953	100.000	
4.63426	4.64126	4.64592	4.64825	4.72756	4.89084	4.89550	4.95615	4.95848	

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.001
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 0.461

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (4) = 1.472
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (5) = 2.992
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (6) = 3.696
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (7) = 4.120
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (8) = 4.190

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
12	1	-11.07347	-16.17260	-1.06216
12	2	-11.63677	-17.13276	-1.28700
12	3	-13.78152	-17.22161	-1.32112
12	4	-14.34482	-18.82116	-2.05569
12	5	-14.95230	-20.81177	-3.11339
12	6	-15.24768	-22.91409	-4.28974
12	7	-15.46313	-25.35916	-5.69744
12	8	-15.50797	NUMXQ(K) = 8	
		2.512E-06	0.050	1.000
		1.659E-06	0.149	3.000
		1.349E-06	0.248	5.000
		1.001E-06	0.496	10.000
		8.286E-07	0.744	15.000
		7.204E-07	0.992	20.000
		6.440E-07	1.240	25.000
		5.845E-07	1.488	30.000
		5.150E-07	1.735	35.000
		4.603E-07	1.983	40.000
		4.162E-07	2.231	45.000
		3.797E-07	2.479	50.000
		3.490E-07	2.727	55.000
		3.227E-07	2.975	60.000
		2.899E-07	3.223	65.000
		2.613E-07	3.471	70.000
		2.363E-07	3.719	75.000
		2.080E-07	3.967	80.000
		9.974E-07	0.5	10.08

ANNUAL AVERAGE = 7.73E-09

K= 12 FIVEXQ(K)= 9.974E-07 FIVEPR(K)=10.084

FUMIGATION X/Q AT THE BOUNDARY: 9.60E-06

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	9.789E-01	8.841E-01	3.613E-01	3.371E-01	2.081E-01	1.693E-02
0.659	2.117	5.175	26.549	53.458	92.991	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 01/28/03

Page 828 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE E SECTOR.

STABILITY CLASS	WINDSPEED METER/SEC	FREQUENCY PERCENT	DISTANCE METERS	TERRAIN METERS	HT EFF METERS	PLUME HT METERS	SIGMA-Y METERS	SIGMA-Z METERS	MEANDER-SY METERS	** CHI/Q VALUES (SEC/CUBIC METER)		
										MEANDER	BLDG WAKE	USED
AT 131.4 METERS										CA=1292.SQ.METERS		
A	3.6	0.03	5000.	0.	131.	801.3	1000.0	0.0	0.000E+00	0.000E+00	1.090E-07	
A	6.0	0.24	5000.	0.	131.	801.3	1000.0	0.0	0.000E+00	0.000E+00	6.541E-08	
A	8.9	0.63	5000.	0.	131.	801.3	1000.0	0.0	0.000E+00	0.000E+00	4.420E-08	
A	11.6	0.42	5000.	0.	131.	801.3	1000.0	0.0	0.000E+00	0.000E+00	3.407E-08	
A	26.5	0.06	5000.	0.	131.	801.3	1000.0	0.0	0.000E+00	0.000E+00	1.487E-08	
B	3.6	0.12	5000.	0.	131.	602.6	635.6	0.0	0.000E+00	0.000E+00	2.252E-07	
B	6.0	0.63	5000.	0.	131.	602.6	635.6	0.0	0.000E+00	0.000E+00	1.351E-07	
B	8.9	0.81	5000.	0.	131.	602.6	635.6	0.0	0.000E+00	0.000E+00	9.129E-08	
B	11.6	0.36	5000.	0.	131.	602.6	635.6	0.0	0.000E+00	0.000E+00	7.037E-08	
B	26.5	0.18	5000.	0.	131.	602.6	635.6	0.0	0.000E+00	0.000E+00	3.071E-08	
C	3.6	0.15	5000.	0.	131.	457.6	264.8	0.0	0.000E+00	0.000E+00	6.430E-07	
C	6.0	1.25	5000.	0.	131.	457.6	264.8	0.0	0.000E+00	0.000E+00	3.858E-07	
C	8.9	1.67	5000.	0.	131.	457.6	264.8	0.0	0.000E+00	0.000E+00	2.607E-07	
C	11.6	0.86	5000.	0.	131.	457.6	264.8	0.0	0.000E+00	0.000E+00	2.009E-07	
C	26.5	0.39	5000.	0.	131.	457.6	264.8	0.0	0.000E+00	0.000E+00	8.769E-08	
D	0.2	0.00	5000.	0.	131.	322.2	89.1	0.0	0.000E+00	0.000E+00	1.552E-05	
D	1.7	0.78	5000.	0.	131.	322.2	89.1	0.0	0.000E+00	0.000E+00	2.217E-06	
D	3.6	4.21	5000.	0.	131.	322.2	89.1	0.0	0.000E+00	0.000E+00	1.035E-06	
D	6.0	8.98	5000.	0.	131.	322.2	89.1	0.0	0.000E+00	0.000E+00	6.207E-07	
D	8.9	11.78	5000.	0.	131.	322.2	89.1	0.0	0.000E+00	0.000E+00	4.194E-07	
D	11.6	6.71	5000.	0.	131.	322.2	89.1	0.0	0.000E+00	0.000E+00	3.233E-07	
D	26.5	2.68	5000.	0.	131.	322.2	89.1	0.0	0.000E+00	0.000E+00	1.411E-07	
E	0.3	0.01	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06	
E	1.8	1.61	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06	
E	3.9	5.16	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07	
E	6.5	11.78	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07	
E	9.6	15.99	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07	
E	12.5	2.33	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07	
E	28.5	0.27	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08	
F	0.3	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06	
F	1.8	0.89	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07	
F	3.9	2.54	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07	
F	6.5	5.91	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07	
F	9.6	5.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07	

Calculation No. PM-1055 Revision 0**Attachment J****Page 829 of 1411**

F	12.5	0.72	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.003E-07
G	1.8	0.39	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	1.19	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	2.06	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	1.16	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08
G	12.5	0.03	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	9.405E-09
G	28.5	0.03	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	4.104E-09

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 830 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1 96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

E SECTOR BOUNDARY DISTANCE = 5000.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.552E-05	8.835E-06	4.813E-06	2.217E-06	1.262E-06	1.035E-06	6.875E-07	6.430E-07	6.207E-07	5.890E-07
0.002	0.013	0.024	0.799	2.410	6.615	7.510	7.659	16.637	21.796
0.00014	0.00103	0.00184	0.06249	0.18844	0.51733	0.58731	0.59897	1.30106	1.70458
4.194E-07	3.858E-07	3.534E-07	3.233E-07	3.208E-07	2.607E-07	2.388E-07	2.252E-07	2.009E-07	1.925E-07
33.578	34.830	46.612	53.322	55.858	57.528	73.515	73.634	74.499	80.404
2.62593	2.72390	3.64525	4.17006	4.36833	4.49895	5.74918	5.75851	5.82616	6.28800
1.841E-07	1.411E-07	1.351E-07	1.301E-07	1.090E-07	1.003E-07	9.129E-08	8.769E-08	8.032E-08	7.037E-08
82.731	85.415	86.041	91.052	91.082	91.798	92.603	92.991	93.259	93.617
6.46993	6.67986	6.72884	7.12071	7.12304	7.17902	7.24200	7.27232	7.29331	7.32130
6.541E-08	6.449E-08	4.420E-08	3.407E-08	3.071E-08	3.010E-08	1.806E-08	1.487E-08	1.220E-08	9.405E-09
93.856	94.244	94.870	95.287	95.466	96.659	98.717	98.777	99.940	99.970
7.33996	7.37029	7.41927	7.45192	7.46592	7.55922	7.72017	7.72483	7.81580	7.81813
4.104E-09									
100.000									
7.82046									

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS

SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2) = 1.703
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3) = 4.365
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4) = 5.745
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5) = 6.466
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(6) = 7.117

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
13	1	-11.07347	-17.04265	-1.27291
13	2	-14.34482	-17.48821	-1.48313
13	3	-14.95230	-18.74064	-2.21562
13	4	-15.24768	-22.11750	-4.35759
13	5	-15.50797	-26.11669	-6.99422
13	6	-15.85517	NUMXQ(K) = 6	
		2.223E-06	0.078	1.000
		1.451E-06	0.235	3.000
		1.172E-06	0.391	5.000
		8.609E-07	0.782	10.000
		7.101E-07	1.173	15.000
		6.154E-07	1.564	20.000
		5.422E-07	1.955	25.000
		4.843E-07	2.346	30.000
		4.391E-07	2.737	35.000
		4.025E-07	3.128	40.000
		3.721E-07	3.519	45.000
		3.464E-07	3.910	50.000
		3.243E-07	4.301	55.000
		2.976E-07	4.692	60.000
		2.731E-07	5.083	65.000
		2.520E-07	5.474	70.000
		2.286E-07	5.865	75.000
		1.983E-07	6.256	80.000
		1.670E-07	6.647	85.000
		1.357E-07	7.038	90.000
		1.054E-06	0.5	6.39

ANNUAL AVERAGE = 1.19E-08

K= 13 FIVEXQ(K)= 1.054E-06 FIVEPR(K)= 6.393

FUMIGATION X/Q AT THE BOUNDARY: 9.60E-06

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	9.789E-01	8.841E-01	3.613E-01	3.371E-01	2.081E-01	1.693E-02
1.372	3.460	7.785	22.857	57.994	95.138	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 01/28/03

Page 832 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE ESE SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	6.0	0.24	5000.	0.	131.		801.3	1000.0	0.0	0.000E+00	0.000E+00	6.541E-08		
A	8.9	0.24	5000.	0.	131.		801.3	1000.0	0.0	0.000E+00	0.000E+00	4.420E-08		
A	11.6	0.05	5000.	0.	131.		801.3	1000.0	0.0	0.000E+00	0.000E+00	3.407E-08		
A	26.5	0.13	5000.	0.	131.		801.3	1000.0	0.0	0.000E+00	0.000E+00	1.487E-08		
B	3.6	0.08	5000.	0.	131.		602.6	635.6	0.0	0.000E+00	0.000E+00	2.252E-07		
B	6.0	0.24	5000.	0.	131.		602.6	635.6	0.0	0.000E+00	0.000E+00	1.351E-07		
B	8.9	0.53	5000.	0.	131.		602.6	635.6	0.0	0.000E+00	0.000E+00	9.129E-08		
B	11.6	0.37	5000.	0.	131.		602.6	635.6	0.0	0.000E+00	0.000E+00	7.037E-08		
B	26.5	0.19	5000.	0.	131.		602.6	635.6	0.0	0.000E+00	0.000E+00	3.071E-08		
C	3.6	0.13	5000.	0.	131.		457.6	264.8	0.0	0.000E+00	0.000E+00	6.430E-07		
C	6.0	0.69	5000.	0.	131.		457.6	264.8	0.0	0.000E+00	0.000E+00	3.858E-07		
C	8.9	1.57	5000.	0.	131.		457.6	264.8	0.0	0.000E+00	0.000E+00	2.607E-07		
C	11.6	0.80	5000.	0.	131.		457.6	264.8	0.0	0.000E+00	0.000E+00	2.009E-07		
C	26.5	0.72	5000.	0.	131.		457.6	264.8	0.0	0.000E+00	0.000E+00	8.769E-08		
D	0.2	0.00	5000.	0.	131.		322.2	89.1	0.0	0.000E+00	0.000E+00	1.552E-05		
D	1.7	1.01	5000.	0.	131.		322.2	89.1	0.0	0.000E+00	0.000E+00	2.217E-06		
D	3.6	2.59	5000.	0.	131.		322.2	89.1	0.0	0.000E+00	0.000E+00	1.035E-06		
D	6.0	9.48	5000.	0.	131.		322.2	89.1	0.0	0.000E+00	0.000E+00	6.207E-07		
D	8.9	17.99	5000.	0.	131.		322.2	89.1	0.0	0.000E+00	0.000E+00	4.194E-07		
D	11.6	11.96	5000.	0.	131.		322.2	89.1	0.0	0.000E+00	0.000E+00	3.233E-07		
D	26.5	4.03	5000.	0.	131.		322.2	89.1	0.0	0.000E+00	0.000E+00	1.411E-07		
E	0.3	0.01	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06		
E	1.8	0.96	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06		
E	3.9	3.68	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07		
E	6.5	9.45	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07		
E	9.6	15.56	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07		
E	12.5	2.96	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07		
E	28.5	0.32	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08		
F	0.3	0.01	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06		
F	1.8	0.75	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07		
F	3.9	1.76	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07		
F	6.5	3.74	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07		
F	9.6	3.68	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07		
F	12.5	0.48	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	1.003E-07		

G	1.8	0.37	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	0.93	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	1.17	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	1.04	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08
G	12.5	0.05	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	9.405E-09

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 834 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1 96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

ESE SECTOR BOUNDARY DISTANCE = 5000.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.552E-05	8.835E-06	4.813E-06	2.217E-06	1.262E-06	1.035E-06	6.875E-07	6.430E-07	6.207E-07	5.890E-07
0.002	0.009	0.018	1.032	1.993	4.582	5.329	5.463	14.938	18.621
0.00020	0.00080	0.00155	0.09019	0.17416	0.40041	0.46572	0.47739	1.30543	1.62732
4.194E-07	3.858E-07	3.534E-07	3.233E-07	3.208E-07	2.607E-07	2.388E-07	2.252E-07	2.009E-07	1.925E-07
36.610	37.304	46.753	58.710	60.472	62.046	77.607	77.687	78.488	82.224
3.19944	3.26009	4.08580	5.13077	5.28472	5.42234	6.78220	6.78920	6.85917	7.18573
1.841E-07	1.411E-07	1.351E-07	1.301E-07	1.003E-07	9.129E-08	8.769E-08	8.032E-08	7.037E-08	6.541E-08
85.187	89.217	89.457	93.141	93.621	94.155	94.875	95.196	95.569	95.810
7.44464	7.79685	7.81784	8.13973	8.18172	8.22836	8.29134	8.31933	8.35199	8.37298
6.449E-08	4.420E-08	3.407E-08	3.071E-08	3.010E-08	1.806E-08	1.487E-08	1.220E-08	9.405E-09	
96.183	96.423	96.477	96.664	97.598	98.772	98.906	99.947	100.000	
8.40564	8.42663	8.43129	8.44762	8.52926	8.63189	8.64355	8.73452	8.73919	

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.090
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 3.196

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 5.281
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 6.778
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(6)= 7.441
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(7)= 8.136

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
14	1	-11.07347	-17.09512	-1.30589
14	2	-13.01938	-17.11639	-1.31270
14	3	-14.68439	-16.80129	-1.14262
14	4	-14.95230	-18.75509	-2.35001
14	5	-15.24768	-23.21138	-5.33579
14	6	-15.50797	-26.00667	-7.27196
14	7	-15.85517	NUMXQ(K)= 7	
		2.244E-06	0.087	1.000
		1.439E-06	0.262	3.000
		1.152E-06	0.437	5.000
		8.347E-07	0.874	10.000
		6.824E-07	1.311	15.000
		5.874E-07	1.748	20.000
		5.207E-07	2.185	25.000
		4.704E-07	2.622	30.000
		4.306E-07	3.059	35.000
		4.008E-07	3.496	40.000
		3.768E-07	3.933	45.000
		3.562E-07	4.370	50.000
		3.382E-07	4.807	55.000
		3.223E-07	5.244	60.000
		2.950E-07	5.680	65.000
		2.703E-07	6.117	70.000
		2.489E-07	6.554	75.000
		2.195E-07	6.991	80.000
		1.852E-07	7.428	85.000
		1.488E-07	7.865	90.000
		1.084E-06	0.5	5.72

ANNUAL AVERAGE = 1.39E-08

K= 14 FIVEXQ(K)= 1.084E-06 FIVEPR(K)= 5.721

FUMIGATION X/Q AT THE BOUNDARY: 9.60E-06

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	9.789E-01	8.841E-01	3.613E-01	3.371E-01	2.081E-01	1.693E-02
0.667	2.082	6.005	16.423	63.481	96.423	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 01/28/03

Page 836 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE SE SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	6.0	0.04	5000.	0.	131.	801.3	1000.0	0.0	0.000E+00	0.000E+00	6.541E-08			
A	8.9	0.06	5000.	0.	131.	801.3	1000.0	0.0	0.000E+00	0.000E+00	4.420E-08			
A	26.5	0.02	5000.	0.	131.	801.3	1000.0	0.0	0.000E+00	0.000E+00	1.487E-08			
B	3.6	0.08	5000.	0.	131.	602.6	635.6	0.0	0.000E+00	0.000E+00	2.252E-07			
B	6.0	0.04	5000.	0.	131.	602.6	635.6	0.0	0.000E+00	0.000E+00	1.351E-07			
B	8.9	0.19	5000.	0.	131.	602.6	635.6	0.0	0.000E+00	0.000E+00	9.129E-08			
B	11.6	0.08	5000.	0.	131.	602.6	635.6	0.0	0.000E+00	0.000E+00	7.037E-08			
C	3.6	0.06	5000.	0.	131.	457.6	264.8	0.0	0.000E+00	0.000E+00	6.430E-07			
C	6.0	0.55	5000.	0.	131.	457.6	264.8	0.0	0.000E+00	0.000E+00	3.858E-07			
C	8.9	0.74	5000.	0.	131.	457.6	264.8	0.0	0.000E+00	0.000E+00	2.607E-07			
C	11.6	0.59	5000.	0.	131.	457.6	264.8	0.0	0.000E+00	0.000E+00	2.009E-07			
C	26.5	0.13	5000.	0.	131.	457.6	264.8	0.0	0.000E+00	0.000E+00	8.769E-08			
D	0.2	0.00	5000.	0.	131.	322.2	89.1	0.0	0.000E+00	0.000E+00	1.552E-05			
D	1.7	0.76	5000.	0.	131.	322.2	89.1	0.0	0.000E+00	0.000E+00	2.217E-06			
D	3.6	4.10	5000.	0.	131.	322.2	89.1	0.0	0.000E+00	0.000E+00	1.035E-06			
D	6.0	11.52	5000.	0.	131.	322.2	89.1	0.0	0.000E+00	0.000E+00	6.207E-07			
D	8.9	22.08	5000.	0.	131.	322.2	89.1	0.0	0.000E+00	0.000E+00	4.194E-07			
D	11.6	11.54	5000.	0.	131.	322.2	89.1	0.0	0.000E+00	0.000E+00	3.233E-07			
D	26.5	3.91	5000.	0.	131.	322.2	89.1	0.0	0.000E+00	0.000E+00	1.411E-07			
E	0.3	0.01	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06			
E	1.8	0.83	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06			
E	3.9	3.61	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07			
E	6.5	11.03	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07			
E	9.6	13.83	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07			
E	12.5	1.89	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07			
E	28.5	0.13	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08			
F	0.3	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06			
F	1.8	0.55	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07			
F	3.9	2.00	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07			
F	6.5	3.78	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07			
F	9.6	1.91	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07			
G	1.8	0.28	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08			
G	3.9	1.49	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08			

G	6.5	1.95	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	0.19	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 838 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1 96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

SE SECTOR BOUNDARY DISTANCE = 5000.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.552E-05	8.835E-06	4.813E-06	2.217E-06	1.262E-06	1.035E-06	6.875E-07	6.430E-07	6.207E-07	5.890E-07
0.002	0.008	0.014	0.779	1.607	5.708	6.260	6.324	17.840	21.452
0.00019	0.00084	0.00154	0.08551	0.17648	0.62665	0.68730	0.69430	1.95853	2.35505
4.194E-07	3.858E-07	3.534E-07	3.233E-07	3.208E-07	2.607E-07	2.388E-07	2.252E-07	2.009E-07	1.925E-07
43.527	44.079	55.106	66.643	68.640	69.384	83.215	83.300	83.895	87.677
4.77855	4.83919	6.04977	7.31633	7.53559	7.61723	9.13570	9.14503	9.21034	9.62553
1.841E-07	1.411E-07	1.351E-07	1.301E-07	9.129E-08	8.769E-08	8.032E-08	7.037E-08	6.541E-08	6.449E-08
89.568	93.477	93.520	95.432	95.623	95.751	95.878	95.963	96.006	96.282
9.83313	10.26231	10.26698	10.47691	10.49790	10.51189	10.52589	10.53522	10.53988	10.57021
4.420E-08	3.010E-08	1.806E-08	1.487E-08	1.220E-08					
96.346	97.833	99.788	99.809	100.000					
10.57720	10.74048	10.95507	10.95741	10.97840					

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (2)= 2.353
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (3)= 4.775

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 7.532
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 9.132
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(6)= 9.830
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(7)= 10.474

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
15	1	-11.07347	-16.80875	-1.24076
15	2	-14.34482	-16.46040	-1.06534
15	3	-14.68439	-16.62802	-1.16589
15	4	-14.95230	-19.00974	-2.82298
15	5	-15.24768	-23.63590	-6.29437
15	6	-15.50797	-27.85695	-9.56320
15	7	-15.85517	NUMXQ(K)= 7	
		2.241E-06	0.110	1.000
		1.460E-06	0.329	3.000
		1.177E-06	0.549	5.000
		8.607E-07	1.098	10.000
		7.073E-07	1.647	15.000
		6.110E-07	2.196	20.000
		5.492E-07	2.745	25.000
		5.041E-07	3.294	30.000
		4.679E-07	3.842	35.000
		4.378E-07	4.391	40.000
		4.116E-07	4.940	45.000
		3.876E-07	5.489	50.000
		3.667E-07	6.038	55.000
		3.482E-07	6.587	60.000
		3.318E-07	7.136	65.000
		3.115E-07	7.685	70.000
		2.806E-07	8.234	75.000
		2.540E-07	8.783	80.000
		2.216E-07	9.332	85.000
		1.793E-07	9.881	90.000
		1.225E-06	0.5	4.55

ANNUAL AVERAGE = 1.90E-08

K= 15 FIVEXQ(K)= 1.225E-06 FIVEPR(K)= 4.554

FUMIGATION X/Q AT THE BOUNDARY: 9.60E-06

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	9.789E-01	8.841E-01	3.613E-01	3.371E-01	2.081E-01	1.693E-02
0.127	0.531	2.613	10.863	64.767	96.091	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 840 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1 96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE SSE SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	3.6	0.02	5000.	0.	131.	801.3	1000.0	0.0	0.000E+00	0.000E+00	1.090E-07			
A	6.0	0.17	5000.	0.	131.	801.3	1000.0	0.0	0.000E+00	0.000E+00	6.541E-08			
A	8.9	0.32	5000.	0.	131.	801.3	1000.0	0.0	0.000E+00	0.000E+00	4.420E-08			
A	11.6	0.02	5000.	0.	131.	801.3	1000.0	0.0	0.000E+00	0.000E+00	3.407E-08			
A	26.5	0.02	5000.	0.	131.	801.3	1000.0	0.0	0.000E+00	0.000E+00	1.487E-08			
B	3.6	0.06	5000.	0.	131.	602.6	635.6	0.0	0.000E+00	0.000E+00	2.252E-07			
B	6.0	0.48	5000.	0.	131.	602.6	635.6	0.0	0.000E+00	0.000E+00	1.351E-07			
B	8.9	0.71	5000.	0.	131.	602.6	635.6	0.0	0.000E+00	0.000E+00	9.129E-08			
B	11.6	0.11	5000.	0.	131.	602.6	635.6	0.0	0.000E+00	0.000E+00	7.037E-08			
C	3.6	0.48	5000.	0.	131.	457.6	264.8	0.0	0.000E+00	0.000E+00	6.430E-07			
C	6.0	2.16	5000.	0.	131.	457.6	264.8	0.0	0.000E+00	0.000E+00	3.858E-07			
C	8.9	2.01	5000.	0.	131.	457.6	264.8	0.0	0.000E+00	0.000E+00	2.607E-07			
C	11.6	0.37	5000.	0.	131.	457.6	264.8	0.0	0.000E+00	0.000E+00	2.009E-07			
D	0.2	0.00	5000.	0.	131.	322.2	89.1	0.0	0.000E+00	0.000E+00	1.552E-05			
D	1.7	1.08	5000.	0.	131.	322.2	89.1	0.0	0.000E+00	0.000E+00	2.217E-06			
D	3.6	8.31	5000.	0.	131.	322.2	89.1	0.0	0.000E+00	0.000E+00	1.035E-06			
D	6.0	20.04	5000.	0.	131.	322.2	89.1	0.0	0.000E+00	0.000E+00	6.207E-07			
D	8.9	19.82	5000.	0.	131.	322.2	89.1	0.0	0.000E+00	0.000E+00	4.194E-07			
D	11.6	5.23	5000.	0.	131.	322.2	89.1	0.0	0.000E+00	0.000E+00	3.233E-07			
D	26.5	1.36	5000.	0.	131.	322.2	89.1	0.0	0.000E+00	0.000E+00	1.411E-07			
E	0.3	0.01	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06			
E	1.8	0.73	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06			
E	3.9	4.38	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07			
E	6.5	11.10	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07			
E	9.6	10.11	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07			
E	12.5	0.93	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07			
E	28.5	0.22	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08			
F	0.3	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06			
F	1.8	0.48	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07			
F	3.9	2.09	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07			
F	6.5	2.72	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07			
F	9.6	0.69	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07			
F	12.5	0.11	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.003E-07			

Calculation No. PM-1055 Revision 0**Attachment J****Page 841 of 1411**

G	1.8	0.41	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	1.27	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	1.84	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	0.11	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08
G	28.5	0.02	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	4.104E-09

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 01/28/03

Page 842 of 1411

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

SSE SECTOR BOUNDARY DISTANCE = 5000.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.552E-05	8.835E-06	4.813E-06	2.217E-06	1.262E-06	1.035E-06	6.875E-07	6.430E-07	6.207E-07	5.890E-07
0.002	0.008	0.013	1.093	1.827	10.141	10.617	11.092	31.132	35.516
0.00026	0.00083	0.00142	0.11805	0.19735	1.09537	1.14669	1.19801	3.36259	3.83609
4.194E-07	3.858E-07	3.534E-07	3.233E-07	3.208E-07	2.607E-07	2.388E-07	2.252E-07	2.009E-07	1.925E-07
55.341	57.500	68.600	73.826	75.921	77.929	88.036	88.101	88.468	91.189
5.97735	6.21060	7.40952	7.97399	8.20024	8.41717	9.50879	9.51579	9.55544	9.84934
1.841E-07	1.411E-07	1.351E-07	1.301E-07	1.090E-07	1.003E-07	9.129E-08	8.032E-08	7.037E-08	6.541E-08
92.118	93.478	93.953	94.644	94.666	94.774	95.487	95.703	95.810	95.983
9.94964	10.09659	10.14790	10.22254	10.22488	10.23654	10.31351	10.33684	10.34850	10.36716
6.449E-08	4.420E-08	3.407E-08	3.010E-08	1.806E-08	1.487E-08	1.220E-08	4.104E-09		
96.394	96.717	96.739	98.013	99.849	99.870	99.978	100.000		
10.41148	10.44647	10.44880	10.58642	10.78468	10.78701	10.79868	10.80101		

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 3.833
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 7.406

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 8.197
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 9.505
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(6)= 9.947
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(7)= 10.220

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
16	1	-11.07347	-16.42562	-1.17531
16	2	-14.34482	-17.13437	-1.57564
16	3	-14.85564	-17.43216	-1.78155
16	4	-14.95230	-19.98394	-3.61476
16	5	-15.24768	-28.54404	-10.14792
16	6	-15.50797	-44.34973	-22.45184
16	7	-15.85517	NUMXQ(K)= 7	
		2.705E-06	0.108	1.000
		1.804E-06	0.324	3.000
		1.472E-06	0.540	5.000
		1.095E-06	1.080	10.000
		9.093E-07	1.620	15.000
		7.918E-07	2.160	20.000
		7.082E-07	2.700	25.000
		6.445E-07	3.240	30.000
		5.937E-07	3.780	35.000
		5.398E-07	4.320	40.000
		4.941E-07	4.860	45.000
		4.557E-07	5.401	50.000
		4.229E-07	5.941	55.000
		3.944E-07	6.481	60.000
		3.695E-07	7.021	65.000
		3.467E-07	7.561	70.000
		3.246E-07	8.101	75.000
		2.894E-07	8.641	80.000
		2.564E-07	9.181	85.000
		2.105E-07	9.721	90.000
		1.519E-06	0.5	4.63

ANNUAL AVERAGE = 2.40E-08

K= 16 FIVEXQ(K)= 1.519E-06 FIVEPR(K)= 4.629

FUMIGATION X/Q AT THE BOUNDARY: 9.60E-06

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	9.789E-01	8.841E-01	3.613E-01	3.371E-01	2.081E-01	1.693E-02
0.561	1.922	6.932	13.028	68.876	96.350	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 01/28/03

Page 844 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1 96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE ALL SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)
CLASS	METER/SEC	PERCENT	METERS	METERS			METERS		METERS	METERS	METERS	MEANDER BLDG WAKE USED
AT 131.4 METERS												
CA=1292.SQ.METERS												
A	1.7	0.01	5000.	0.			131.		801.3	1000.0	0.0	0.000E+00 0.000E+00 2.336E-07
A	3.6	0.51	5000.	0.			131.		801.3	1000.0	0.0	0.000E+00 0.000E+00 1.090E-07
A	6.0	0.53	5000.	0.			131.		801.3	1000.0	0.0	0.000E+00 0.000E+00 6.541E-08
A	8.9	0.28	5000.	0.			131.		801.3	1000.0	0.0	0.000E+00 0.000E+00 4.420E-08
A	11.6	0.06	5000.	0.			131.		801.3	1000.0	0.0	0.000E+00 0.000E+00 3.407E-08
A	26.5	0.03	5000.	0.			131.		801.3	1000.0	0.0	0.000E+00 0.000E+00 1.487E-08
B	1.7	0.05	5000.	0.			131.		602.6	635.6	0.0	0.000E+00 0.000E+00 4.825E-07
B	3.6	0.47	5000.	0.			131.		602.6	635.6	0.0	0.000E+00 0.000E+00 2.252E-07
B	6.0	0.54	5000.	0.			131.		602.6	635.6	0.0	0.000E+00 0.000E+00 1.351E-07
B	8.9	0.44	5000.	0.			131.		602.6	635.6	0.0	0.000E+00 0.000E+00 9.129E-08
B	11.6	0.12	5000.	0.			131.		602.6	635.6	0.0	0.000E+00 0.000E+00 7.037E-08
B	26.5	0.03	5000.	0.			131.		602.6	635.6	0.0	0.000E+00 0.000E+00 3.071E-08
C	1.7	0.08	5000.	0.			131.		457.6	264.8	0.0	0.000E+00 0.000E+00 1.378E-06
C	3.6	0.77	5000.	0.			131.		457.6	264.8	0.0	0.000E+00 0.000E+00 6.430E-07
C	6.0	1.33	5000.	0.			131.		457.6	264.8	0.0	0.000E+00 0.000E+00 3.858E-07
C	8.9	1.04	5000.	0.			131.		457.6	264.8	0.0	0.000E+00 0.000E+00 2.607E-07
C	11.6	0.30	5000.	0.			131.		457.6	264.8	0.0	0.000E+00 0.000E+00 2.009E-07
C	26.5	0.13	5000.	0.			131.		457.6	264.8	0.0	0.000E+00 0.000E+00 8.769E-08
D	0.2	0.00	5000.	0.			131.		322.2	89.1	0.0	0.000E+00 0.000E+00 1.552E-05
D	1.7	2.07	5000.	0.			131.		322.2	89.1	0.0	0.000E+00 0.000E+00 2.217E-06
D	3.6	9.39	5000.	0.			131.		322.2	89.1	0.0	0.000E+00 0.000E+00 1.035E-06
D	6.0	15.72	5000.	0.			131.		322.2	89.1	0.0	0.000E+00 0.000E+00 6.207E-07
D	8.9	12.23	5000.	0.			131.		322.2	89.1	0.0	0.000E+00 0.000E+00 4.194E-07
D	11.6	4.24	5000.	0.			131.		322.2	89.1	0.0	0.000E+00 0.000E+00 3.233E-07
D	26.5	1.39	5000.	0.			131.		322.2	89.1	0.0	0.000E+00 0.000E+00 1.411E-07
E	0.3	0.01	9000.	0.			131.		389.6	74.2	0.0	0.000E+00 0.000E+00 8.835E-06
E	1.8	1.97	9000.	0.			131.		389.6	74.2	0.0	0.000E+00 0.000E+00 1.262E-06
E	3.9	8.90	9000.	0.			131.		389.6	74.2	0.0	0.000E+00 0.000E+00 5.890E-07
E	6.5	13.85	9000.	0.			131.		389.6	74.2	0.0	0.000E+00 0.000E+00 3.534E-07
E	9.6	9.53	9000.	0.			131.		389.6	74.2	0.0	0.000E+00 0.000E+00 2.388E-07
E	12.5	1.29	9000.	0.			131.		389.6	74.2	0.0	0.000E+00 0.000E+00 1.841E-07
E	28.5	0.23	9000.	0.			131.		389.6	74.2	0.0	0.000E+00 0.000E+00 8.032E-08
F	0.3	0.01	90000.	0.			131.		1000.0	92.1	0.0	0.000E+00 0.000E+00 4.813E-06
F	1.8	1.01	90000.	0.			131.		1000.0	92.1	0.0	0.000E+00 0.000E+00 6.875E-07

Calculation No. PM-1055 Revision 0**Attachment J****Page 845 of 1411**

F	3.9	3.14	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07
F	6.5	3.52	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07
F	9.6	1.55	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07
F	12.5	0.16	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.003E-07
F	28.5	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.375E-08
G	1.8	0.43	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	1.17	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	1.14	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	0.31	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08
G	12.5	0.01	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	9.405E-09
G	28.5	0.00	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	4.104E-09

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 846 of 1411**

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

DIRECTION-INDEPENDENT (S.R.P 2.3.4) MODEL.

MINIMUM BOUNDARY DISTANCE = 5000.0 METERS.

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.552E-05	8.835E-06	4.813E-06	2.217E-06	1.378E-06	1.262E-06	1.035E-06	6.875E-07	6.430E-07	6.207E-07
0.005	0.019	0.030	2.097	2.174	4.140	13.531	14.541	15.306	31.025
0.00467	0.01866	0.03032	2.09694	2.17391	4.14023	13.53097	14.54096	15.30603	31.02491
5.890E-07	4.825E-07	4.194E-07	3.858E-07	3.534E-07	3.233E-07	3.208E-07	2.607E-07	2.388E-07	2.336E-07
39.921	39.968	52.197	53.527	67.373	71.613	74.755	75.798	85.324	85.331
39.92116	39.96781	52.19723	53.52677	67.37263	71.61317	74.75508	75.79772	85.32375	85.33074
2.252E-07	2.009E-07	1.925E-07	1.841E-07	1.411E-07	1.351E-07	1.301E-07	1.090E-07	1.003E-07	9.129E-08
85.802	86.105	89.623	90.917	92.305	92.848	94.402	94.915	95.076	95.517
85.80191	86.10514	89.62259	90.91714	92.30499	92.84847	94.40193	94.91508	95.07603	95.51688
8.769E-08	8.032E-08	7.037E-08	6.541E-08	6.449E-08	4.420E-08	4.375E-08	3.407E-08	3.071E-08	3.010E-08
95.643	95.871	95.993	96.524	96.958	97.236	97.248	97.306	97.341	98.514
95.64283	95.87141	95.99271	96.52453	96.95838	97.23595	97.24762	97.30593	97.34092	98.51418
1.806E-08	1.487E-08	1.220E-08	9.405E-09	4.104E-09					
99.650	99.678	99.986	99.995	100.000					
99.65012	99.67811	99.98600	99.99533	99.99999					

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS

Calculation No. PM-1055 Revision 0**Attachment J****Page 847 of 1411**

SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

3.494E-06	1.000	1.000
2.295E-06	3.000	3.000
1.837E-06	5.000	5.000
1.304E-06	10.000	10.000
1.035E-06	15.000	15.000
8.609E-07	20.000	20.000
7.352E-07	25.000	25.000
6.381E-07	30.000	30.000
6.060E-07	35.000	35.000
5.882E-07	40.000	40.000
5.408E-07	45.000	45.000
4.979E-07	50.000	50.000
4.584E-07	55.000	55.000
4.214E-07	60.000	60.000
3.863E-07	65.000	65.000
3.524E-07	70.000	70.000
3.190E-07	75.000	75.000
2.804E-07	80.000	80.000
2.414E-07	85.000	85.000
1.934E-07	90.000	90.000
1.837E-06	5.0	5.00

K= 17 FIVEXQ(K)= 1.837E-06 FIVEPR(K)= 5.000

FUMIGATION X/Q AT THE BOUNDARY: 9.60E-06

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	9.789E-01	8.841E-01	3.613E-01	3.371E-01	2.081E-01	1.693E-02
1.416	3.074	6.718	16.125	61.163	96.935	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 848 of 1411**

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1 96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

FIVE PERCENT OVERALL SITE LIMIT

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.
THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR..
THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.552E-05	8.835E-06	4.813E-06	2.217E-06	1.378E-06	1.262E-06	1.035E-06	6.875E-07	6.430E-07	6.207E-07
0.005	0.019	0.030	2.097	2.174	4.140	13.531	14.541	15.306	31.025
0.00467	0.01866	0.03032	2.09694	2.17391	4.14023	13.53098	14.54096	15.30603	31.02491
5.890E-07	4.825E-07	4.194E-07	3.858E-07	3.534E-07	3.233E-07	3.208E-07	2.607E-07	2.388E-07	2.336E-07
39.921	39.968	52.197	53.527	67.373	71.613	74.755	75.798	85.324	85.331
39.92117	39.96782	52.19724	53.52678	67.37266	71.61318	74.75510	75.79774	85.32377	85.33076
2.252E-07	2.009E-07	1.925E-07	1.841E-07	1.411E-07	1.351E-07	1.301E-07	1.090E-07	1.003E-07	9.129E-08
85.802	86.105	89.623	90.917	92.305	92.848	94.402	94.915	95.076	95.517
85.80193	86.10516	89.62260	90.91716	92.30501	92.84848	94.40194	94.91508	95.07603	95.51688
8.769E-08	8.032E-08	7.037E-08	6.541E-08	6.449E-08	4.420E-08	4.375E-08	3.407E-08	3.071E-08	3.010E-08
95.643	95.871	95.993	96.525	96.958	97.236	97.248	97.306	97.341	98.514
95.64285	95.87144	95.99274	96.52457	96.95840	97.23596	97.24763	97.30593	97.34092	98.51418
1.806E-08	1.487E-08	1.220E-08	9.405E-09	4.104E-09					
99.650	99.678	99.986	99.995	100.000					
99.65010	99.67809	99.98599	99.99532	99.99999					

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS.

Calculation No. PM-1055 Revision 0

SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

Attachment J

Page 849 of 1411

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
18	1	-11.07347	-14.75898	-0.94320
18	2	-14.29235	-14.40062	-0.21885
18	3	-14.34482	-14.51291	-0.65925
18	4	-14.95230	-14.43952	-0.76937
18	5	-15.24768	-14.28987	-0.91183
18	6	-15.50797	-13.96256	-1.15684
18	7	-18.48202	NUMXQ(K) = 7	
		3.494E-06	1.000	1.000
		2.295E-06	3.000	3.000
		1.837E-06	5.000	5.000
		1.304E-06	10.000	10.000
		1.035E-06	15.000	15.000
		8.609E-07	20.000	20.000
		7.352E-07	25.000	25.000
		6.381E-07	30.000	30.000
		6.060E-07	35.000	35.000
		5.882E-07	40.000	40.000
		5.408E-07	45.000	45.000
		4.979E-07	50.000	50.000
		4.584E-07	55.000	55.000
		4.214E-07	60.000	60.000
		3.863E-07	65.000	65.000
		3.524E-07	70.000	70.000
		3.190E-07	75.000	75.000
		2.804E-07	80.000	80.000
		2.414E-07	85.000	85.000
		1.934E-07	90.000	90.000
		1.837E-06	5.0	5.00

K= 18 FIVEXQ(K) = 1.837E-06 FIVEPR(K) = 5.000

K	HIGHPR	PR	GRNDVT(K)
1	-2.71468	0.33170	6.21119
2	-1.56373	5.89399	3.52599
3	-2.64812	0.40471	3.10868
4	-2.58808	0.48257	3.53145
5	-2.57624	0.49942	4.76778
6	-2.67759	0.37078	4.27759
7	-2.72791	0.31869	5.37148
8	-2.80274	0.25336	5.07527
9	-2.69558	0.35134	10.00153
10	-2.85857	0.21278	5.86355
11	-2.89601	0.18898	4.96796
12	-2.99044	0.13930	4.95848
13	-2.95276	0.15748	7.82046
14	-2.91943	0.17534	8.73919
15	-2.84075	0.22504	10.97840
16	-2.67296	0.37593	10.80101

K	HOURS (K)	TOTHR
1	29.05691	29.05691
2	516.31380	545.37070
3	35.45256	580.82320
4	42.27271	623.09590
5	43.74879	666.84470
6	32.48003	699.32480
7	27.91760	727.24240
8	22.19446	749.43680
9	30.77735	780.21420
10	18.63976	798.85390
11	16.55434	815.40830
12	12.20233	827.61060
13	13.79537	841.40590
14	15.36022	856.76620
15	19.71379	876.48000
16	32.93168	909.41170

K	FIVEXQ	SVANN	SLTIME	TIMINT	I	TIME	XQT
1	1.436E-06	1.628E-08	-0.5342	-13.0834	1	8.0	-14.19426
					2	16.0	-14.56454
					3	72.0	-15.36803
					4	624.0	-16.52164
2	1.252E-06	1.101E-08	-0.5646	-13.1994	1	8.0	-14.37346
					2	16.0	-14.76480
					3	72.0	-15.61398
					4	624.0	-16.83319
3	1.504E-06	1.215E-08	-0.5746	-13.0088	1	8.0	-14.20376
					2	16.0	-14.60208
					3	72.0	-15.46639
					4	624.0	-16.70732
4	1.672E-06	1.489E-08	-0.5631	-12.9109	1	8.0	-14.08184
					2	16.0	-14.47215
					3	72.0	-15.31910
					4	624.0	-16.53511
5	1.701E-06	1.732E-08	-0.5471	-12.9048	1	8.0	-14.04251
					2	16.0	-14.42174
					3	72.0	-15.24463
					4	624.0	-16.42610
6	1.485E-06	1.403E-08	-0.5559	-13.0350	1	8.0	-14.19111
					2	16.0	-14.57647
					3	72.0	-15.41266
					4	624.0	-16.61322
7	1.419E-06	1.453E-08	-0.5464	-13.0867	1	8.0	-14.22297
					2	16.0	-14.60172

8	1.293E-06	1.220E-08	-0.5561	-13.1728	3	72.0	-15.42356
					4	624.0	-16.60353
					1	8.0	-14.32932
					2	16.0	-14.71481
9	1.481E-06	2.002E-08	-0.5132	-13.0672	3	72.0	-15.55130
					4	624.0	-16.75229
					1	8.0	-14.13441
					2	16.0	-14.49015
10	1.215E-06	1.149E-08	-0.5559	-13.2350	3	72.0	-15.26208
					4	624.0	-16.37038
					1	8.0	-14.39098
					2	16.0	-14.77629
11	1.136E-06	9.462E-09	-0.5710	-13.2920	3	72.0	-15.61239
					4	624.0	-16.81282
					1	8.0	-14.47945
					2	16.0	-14.87526
12	9.974E-07	7.733E-09	-0.5796	-13.4164	3	72.0	-15.73413
					4	624.0	-16.96727
					1	8.0	-14.62153
					2	16.0	-15.02325
13	1.054E-06	1.189E-08	-0.5348	-13.3926	3	72.0	-15.89495
					4	624.0	-17.14651
					1	8.0	-14.50476
					2	16.0	-14.87546
14	1.084E-06	1.391E-08	-0.5195	-13.3744	3	72.0	-15.67987
					4	624.0	-16.83480
					1	8.0	-14.45480
					2	16.0	-14.81492
15	1.225E-06	1.901E-08	-0.4969	-13.2678	3	72.0	-15.59635
					4	624.0	-16.71829
					1	8.0	-14.30106
					2	16.0	-14.64546
16	1.519E-06	2.395E-08	-0.4949	-13.0547	3	72.0	-15.39279
					4	624.0	-16.46578
					1	8.0	-14.08375
					2	16.0	-14.42676
17	1.837E-06	2.395E-08	-0.5176	-12.8485	3	72.0	-15.17106
					4	624.0	-16.23969
					1	8.0	-13.92472
					2	16.0	-14.28348
18	1.837E-06	2.395E-08	-0.5176	-12.8485	3	72.0	-15.06195
					4	624.0	-16.17965
					1	8.0	-13.92472
					2	16.0	-14.28348

1	8.0	-13.92472
2	16.0	-14.28348
3	72.0	-15.06195
4	624.0	-16.17965

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 01/28/03

Page 853 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1 96.3 meters

RELATIVE CONCENTRATION (X/Q) VALUES (SEC/CUBIC METER)

VERSUS

AVERAGING TIME

HOURS PER YEAR MAX

0-2 HR X/Q IS

EXCEEDED

DOWNWIND DISTANCE SECTOR (METERS)	0-2 HOURS	0-8 HOURS	8-24 HOURS	1-4 DAYS	4-30 DAYS	ANNUAL AVERAGE	IN SECTOR	DOWNWIND SECTOR
S 5000.	1.44E-06	6.85E-07	4.73E-07	2.12E-07	6.68E-08	1.63E-08	29.1	S
SSW 5000.	1.25E-06	5.72E-07	3.87E-07	1.66E-07	4.89E-08	1.10E-08	516.3	SSW
SW 5000.	1.50E-06	6.78E-07	4.55E-07	1.92E-07	5.55E-08	1.22E-08	35.5	SW
WSW 5000.	1.67E-06	7.66E-07	5.19E-07	2.22E-07	6.59E-08	1.49E-08	42.3	WSW
W 5000.	1.70E-06	7.97E-07	5.45E-07	2.40E-07	7.35E-08	1.73E-08	43.7	W
WNW 5000.	1.48E-06	6.87E-07	4.67E-07	2.02E-07	6.09E-08	1.40E-08	32.5	WNW
NW 5000.	1.42E-06	6.65E-07	4.56E-07	2.00E-07	6.15E-08	1.45E-08	27.9	NW
NNW 5000.	1.29E-06	5.98E-07	4.07E-07	1.76E-07	5.30E-08	1.22E-08	22.2	NNW
N 5000.	1.48E-06	7.27E-07	5.09E-07	2.35E-07	7.77E-08	2.00E-08	30.8	N
NNE 5000.	1.22E-06	5.62E-07	3.83E-07	1.66E-07	4.99E-08	1.15E-08	18.6	NNE
NE 5000.	1.14E-06	5.15E-07	3.47E-07	1.47E-07	4.28E-08	9.46E-09	16.6	NE
ENE 5000.	9.97E-07	4.47E-07	2.99E-07	1.25E-07	3.58E-08	7.73E-09	12.2	ENE
E 5000.	1.05E-06	5.02E-07	3.46E-07	1.55E-07	4.88E-08	1.19E-08	13.8	E
ESE 5000.	1.08E-06	5.28E-07	3.68E-07	1.68E-07	5.49E-08	1.39E-08	15.4	ESE
SE 5000.	1.23E-06	6.15E-07	4.36E-07	2.07E-07	7.06E-08	1.90E-08	19.7	SE
SSE 5000.	1.52E-06	7.65E-07	5.43E-07	2.58E-07	8.86E-08	2.40E-08	32.9	SSE
MAX X/Q	1.70E-06					TOTAL HOURS AROUND SITE:	909.4	
SRP 2.3.4 5000.	1.84E-06	8.97E-07	6.26E-07	2.88E-07	9.40E-08	2.40E-08		
SITE LIMIT	1.84E-06	8.97E-07	6.26E-07	2.88E-07	9.40E-08	2.40E-08		

THE FIVE-PERCENT-FOR-THE-ENTIRE-SITE X/Q IS LIMITING.

X/Q VALUES (SEC/CUBIC METER) FOR FUMIGATION AT THE BOUNDARY:

DOWNWIND DISTANCE FUMIGATION

SECTOR (METERS)	X/Q
S 5000.	9.60E-06
SSW 5000.	9.60E-06
SW 5000.	9.60E-06
WSW 5000.	9.60E-06
W 5000.	9.60E-06
WNW 5000.	9.60E-06
NW 5000.	9.60E-06
NNW 5000.	9.60E-06
N 5000.	9.60E-06
NNE 5000.	9.60E-06
NE 5000.	9.60E-06
ENE 5000.	9.60E-06
E 5000.	9.60E-06

Calculation No. PM-1055 Revision 0**Attachment J****Page 854 of 1411**

ESE	5000.	9.60E-06
SE	5000.	9.60E-06
SSE	5000.	9.60E-06

****NOTE**:** VALUES ON THIS PAGE ARE APPROXIMATIONS ONLY.
CHECK THE REASONABLENESS OF THE ENVELOPES
COMPUTED FOR THE 0-2 HOUR VALUES. FOR ANY
FAULTY ENVELOPES, ADJUST THE ABOVE VALUES.

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 01/28/03

Page 855 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE S SECTOR.

STABILITY CLASS	WINDSPEED METER/SEC	FREQUENCY PERCENT	DISTANCE METERS	TERRAIN METERS	HT METERS	EFF METERS	PLUME HT METERS	SIGMA-Y METERS	SIGMA-Z METERS	MEANDER-SY METERS	** CHI/Q VALUES (SEC/CUBIC METER)		
											MEANDER	BLDG WAKE	USED
AT 131.4 METERS											CA=1292.SQ.METERS		
A	3.6	0.23	6000.	0.	131.		131.	944.7	1000.0	0.0	0.000E+00	0.000E+00	9.247E-08
A	8.9	0.08	6000.	0.	131.		131.	944.7	1000.0	0.0	0.000E+00	0.000E+00	3.749E-08
A	11.6	0.08	6000.	0.	131.		131.	944.7	1000.0	0.0	0.000E+00	0.000E+00	2.890E-08
B	3.6	0.49	6000.	0.	131.		131.	710.5	776.1	0.0	0.000E+00	0.000E+00	1.575E-07
B	6.0	0.15	6000.	0.	131.		131.	710.5	776.1	0.0	0.000E+00	0.000E+00	9.452E-08
B	8.9	0.38	6000.	0.	131.		131.	710.5	776.1	0.0	0.000E+00	0.000E+00	6.387E-08
B	11.6	0.04	6000.	0.	131.		131.	710.5	776.1	0.0	0.000E+00	0.000E+00	4.923E-08
C	3.6	1.16	6000.	0.	131.		131.	539.5	312.6	0.0	0.000E+00	0.000E+00	4.783E-07
C	6.0	1.58	6000.	0.	131.		131.	539.5	312.6	0.0	0.000E+00	0.000E+00	2.870E-07
C	8.9	0.68	6000.	0.	131.		131.	539.5	312.6	0.0	0.000E+00	0.000E+00	1.939E-07
C	11.6	0.15	6000.	0.	131.		131.	539.5	312.6	0.0	0.000E+00	0.000E+00	1.495E-07
C	26.5	0.04	6000.	0.	131.		131.	539.5	312.6	0.0	0.000E+00	0.000E+00	6.522E-08
D	0.2	0.01	6000.	0.	131.		131.	379.9	99.2	0.0	0.000E+00	0.000E+00	1.458E-05
D	1.7	2.22	6000.	0.	131.		131.	379.9	99.2	0.0	0.000E+00	0.000E+00	2.083E-06
D	3.6	12.39	6000.	0.	131.		131.	379.9	99.2	0.0	0.000E+00	0.000E+00	9.723E-07
D	6.0	19.57	6000.	0.	131.		131.	379.9	99.2	0.0	0.000E+00	0.000E+00	5.834E-07
D	8.9	14.87	6000.	0.	131.		131.	379.9	99.2	0.0	0.000E+00	0.000E+00	3.942E-07
D	11.6	2.74	6000.	0.	131.		131.	379.9	99.2	0.0	0.000E+00	0.000E+00	3.038E-07
D	26.5	0.56	6000.	0.	131.		131.	379.9	99.2	0.0	0.000E+00	0.000E+00	1.326E-07
E	0.3	0.02	9000.	0.	131.		131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06
E	1.8	2.25	9000.	0.	131.		131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06
E	3.9	8.83	9000.	0.	131.		131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07
E	6.5	13.78	9000.	0.	131.		131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07
E	9.6	5.86	9000.	0.	131.		131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07
E	12.5	0.86	9000.	0.	131.		131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07
E	28.5	0.26	9000.	0.	131.		131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08
F	0.3	0.01	90000.	0.	131.		131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06
F	1.8	0.98	90000.	0.	131.		131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07
F	3.9	3.72	90000.	0.	131.		131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07
F	6.5	3.04	90000.	0.	131.		131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07
F	9.6	0.15	90000.	0.	131.		131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07
F	12.5	0.04	90000.	0.	131.		131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.003E-07
G	1.8	0.41	90000.	0.	131.		131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08

Calculation No. PM-1055 Revision 0**Attachment J****Page 856 of 1411**

G	3.9	1.77	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	0.60	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	0.04	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 857 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1 96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

S SECTOR BOUNDARY DISTANCE = 6000.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.458E-05	8.835E-06	4.813E-06	2.083E-06	1.262E-06	9.723E-07	6.875E-07	5.890E-07	5.834E-07	4.783E-07
0.005	0.021	0.032	2.248	4.501	16.894	17.870	26.695	46.261	47.425
0.00031	0.00131	0.00201	0.13963	0.27958	1.04931	1.10996	1.65810	2.87334	2.94565
3.942E-07	3.534E-07	3.208E-07	3.038E-07	2.870E-07	2.388E-07	1.939E-07	1.925E-07	1.841E-07	1.575E-07
62.296	76.078	79.796	82.538	84.115	89.973	90.649	93.691	94.555	95.043
3.86933	4.72537	4.95629	5.12656	5.22453	5.58840	5.63039	5.81932	5.87297	5.90329
1.495E-07	1.326E-07	1.301E-07	1.003E-07	9.452E-08	9.247E-08	8.032E-08	6.522E-08	6.449E-08	6.387E-08
95.193	95.756	95.907	95.944	96.094	96.320	96.583	96.620	97.033	97.409
5.91262	5.94761	5.95694	5.95927	5.96860	5.98260	5.99893	6.00126	6.02692	6.05024
4.923E-08	3.749E-08	3.010E-08	2.890E-08	1.806E-08	1.220E-08				
97.446	97.521	99.286	99.362	99.962	100.000				
6.05257	6.05724	6.16687	6.17153	6.20885	6.21119				

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 1.048
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 2.871

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (4) = 4.722
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (5) = 5.123
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (6) = 5.585
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (7) = 5.869
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (8) = 5.953

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
1	1	-11.13557	-16.67229	-1.22524
1	2	-13.84362	-16.73055	-1.25047
1	3	-14.35445	-18.53672	-2.20100
1	4	-14.85564	-21.27152	-3.83621
1	5	-15.00677	-24.28045	-5.67872
1	6	-15.24768	-31.95580	-10.50406
1	7	-15.50797	-91.74384	-48.68644
1	8	-15.85517	NUMXQ(K) = 8	
		3.004E-06	0.062	1.000
		2.008E-06	0.186	3.000
		1.643E-06	0.311	5.000
		1.230E-06	0.621	10.000
		1.027E-06	0.932	15.000
		8.970E-07	1.242	20.000
		8.041E-07	1.553	25.000
		7.335E-07	1.863	30.000
		6.773E-07	2.174	35.000
		6.311E-07	2.484	40.000
		5.922E-07	2.795	45.000
		5.410E-07	3.106	50.000
		4.925E-07	3.416	55.000
		4.515E-07	3.727	60.000
		4.162E-07	4.037	65.000
		3.856E-07	4.348	70.000
		3.588E-07	4.658	75.000
		3.220E-07	4.969	80.000
		2.800E-07	5.280	85.000
		2.384E-07	5.590	90.000
		1.349E-06	0.5	8.05

ANNUAL AVERAGE = 1.56E-08

K= 1 FIVEXQ(K)= 1.349E-06 FIVEPR(K)= 8.050

FUMIGATION X/Q AT THE BOUNDARY: 8.14E-06

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	9.858E-01	9.154E-01	4.157E-01	3.613E-01	2.081E-01	1.693E-02
0.376	1.427	5.032	57.387	65.322	97.183	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 01/28/03

Page 859 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE SSW SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	3.6	0.60	6000.	0.	131.		944.7	1000.0	0.0	0.000E+00	0.000E+00	9.247E-08		
A	6.0	0.60	6000.	0.	131.		944.7	1000.0	0.0	0.000E+00	0.000E+00	5.548E-08		
A	8.9	0.26	6000.	0.	131.		944.7	1000.0	0.0	0.000E+00	0.000E+00	3.749E-08		
A	11.6	0.13	6000.	0.	131.		944.7	1000.0	0.0	0.000E+00	0.000E+00	2.890E-08		
B	1.7	0.13	6000.	0.	131.		710.5	776.1	0.0	0.000E+00	0.000E+00	3.376E-07		
B	3.6	1.52	6000.	0.	131.		710.5	776.1	0.0	0.000E+00	0.000E+00	1.575E-07		
B	6.0	0.99	6000.	0.	131.		710.5	776.1	0.0	0.000E+00	0.000E+00	9.452E-08		
B	8.9	0.20	6000.	0.	131.		710.5	776.1	0.0	0.000E+00	0.000E+00	6.387E-08		
B	11.6	0.13	6000.	0.	131.		710.5	776.1	0.0	0.000E+00	0.000E+00	4.923E-08		
C	1.7	0.33	6000.	0.	131.		539.5	312.6	0.0	0.000E+00	0.000E+00	1.025E-06		
C	3.6	1.46	6000.	0.	131.		539.5	312.6	0.0	0.000E+00	0.000E+00	4.783E-07		
C	6.0	1.26	6000.	0.	131.		539.5	312.6	0.0	0.000E+00	0.000E+00	2.870E-07		
C	8.9	0.53	6000.	0.	131.		539.5	312.6	0.0	0.000E+00	0.000E+00	1.939E-07		
C	11.6	0.07	6000.	0.	131.		539.5	312.6	0.0	0.000E+00	0.000E+00	1.495E-07		
C	26.5	0.26	6000.	0.	131.		539.5	312.6	0.0	0.000E+00	0.000E+00	6.522E-08		
D	0.2	0.01	6000.	0.	131.		379.9	99.2	0.0	0.000E+00	0.000E+00	1.458E-05		
D	1.7	3.84	6000.	0.	131.		379.9	99.2	0.0	0.000E+00	0.000E+00	2.083E-06		
D	3.6	13.96	6000.	0.	131.		379.9	99.2	0.0	0.000E+00	0.000E+00	9.723E-07		
D	6.0	23.09	6000.	0.	131.		379.9	99.2	0.0	0.000E+00	0.000E+00	5.834E-07		
D	8.9	10.19	6000.	0.	131.		379.9	99.2	0.0	0.000E+00	0.000E+00	3.942E-07		
D	11.6	1.79	6000.	0.	131.		379.9	99.2	0.0	0.000E+00	0.000E+00	3.038E-07		
D	26.5	0.46	6000.	0.	131.		379.9	99.2	0.0	0.000E+00	0.000E+00	1.326E-07		
E	0.3	0.02	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06		
E	1.8	2.91	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06		
E	3.9	10.85	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07		
E	6.5	13.30	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07		
E	9.6	2.51	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07		
E	12.5	0.53	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07		
E	28.5	0.07	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08		
F	0.3	0.01	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06		
F	1.8	1.26	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07		
F	3.9	2.51	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07		
F	6.5	1.65	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07		
F	9.6	0.07	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07		

G	1.8	0.93	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	1.26	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	0.33	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 861 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1 96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

SSW SECTOR BOUNDARY DISTANCE = 6000.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.458E-05	8.835E-06	4.813E-06	2.083E-06	1.262E-06	1.025E-06	9.723E-07	6.875E-07	5.890E-07	5.834E-07
0.009	0.029	0.044	3.881	6.791	7.122	21.080	22.337	33.186	56.273
0.00031	0.00104	0.00155	0.13683	0.23947	0.25113	0.74329	0.78761	1.17014	1.98419
4.783E-07	3.942E-07	3.534E-07	3.376E-07	3.208E-07	3.038E-07	2.870E-07	2.388E-07	1.939E-07	1.925E-07
57.729	67.916	81.213	81.345	83.859	85.645	86.902	89.416	89.945	91.599
2.03551	2.39472	2.86356	2.86822	2.95686	3.01983	3.06415	3.15279	3.17145	3.22976
1.841E-07	1.575E-07	1.495E-07	1.326E-07	1.301E-07	9.452E-08	9.247E-08	8.032E-08	6.522E-08	6.449E-08
92.128	93.649	93.716	94.179	94.245	95.237	95.832	95.899	96.163	97.089
3.24842	3.30207	3.30440	3.32073	3.32306	3.35805	3.37904	3.38138	3.39071	3.42336
6.387E-08	5.548E-08	4.923E-08	3.749E-08	3.010E-08	2.890E-08	1.806E-08			
97.288	97.883	98.015	98.280	99.537	99.669	100.000			
3.43036	3.45135	3.45602	3.46535	3.50966	3.51433	3.52599			

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.137
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 1.982

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 2.861
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 3.017
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(6)= 3.061
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(7)= 3.150
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(8)= 3.245
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(9)= 3.299

K	I	XQSAVE(K, I)	XQINT(K, I)	XQSLOP(K, I)
2	1	-11.13557	-16.90128	-1.27489
2	2	-13.08148	-17.14452	-1.35607
2	3	-14.35445	-20.97289	-3.21680
2	4	-14.85564	-27.16205	-6.47141
2	5	-15.00677	-31.64734	-8.85935
2	6	-15.06383	-42.26543	-14.53182
2	7	-15.24768	-51.56333	-19.53280
2	8	-15.50797	-54.67776	-21.22003
2	9	-15.66360	NUMXQ(K)= 9	
		3.432E-06	0.035	1.000
		2.300E-06	0.106	3.000
		1.874E-06	0.176	5.000
		1.384E-06	0.353	10.000
		1.148E-06	0.529	15.000
		1.000E-06	0.705	20.000
		8.958E-07	0.881	25.000
		8.168E-07	1.058	30.000
		7.541E-07	1.234	35.000
		7.028E-07	1.410	40.000
		6.597E-07	1.587	45.000
		6.229E-07	1.763	50.000
		5.909E-07	1.939	55.000
		5.355E-07	2.116	60.000
		4.807E-07	2.292	65.000
		4.345E-07	2.468	70.000
		3.950E-07	2.644	75.000
		3.610E-07	2.821	80.000
		3.105E-07	2.997	85.000
		2.256E-07	3.173	90.000
		1.179E-06	0.5	14.18

ANNUAL AVERAGE = 1.04E-08

K= 2 FIVEXQ(K)= 1.179E-06 FIVEPR(K)=14.180

FUMIGATION X/Q AT THE BOUNDARY: 8.14E-06

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	9.858E-01	9.154E-01	4.157E-01	3.613E-01	2.081E-01	1.693E-02
1.588	4.565	8.467	61.795	67.300	97.486	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 01/28/03

Page 863 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1 96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE SW SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER BLDG WAKE USED
AT 131.4 METERS												CA=1292.SQ.METERS
A	3.6	1.73	6000.	0.	131.		944.7	1000.0	0.0	0.000E+00	0.000E+00	9.247E-08
A	6.0	1.50	6000.	0.	131.		944.7	1000.0	0.0	0.000E+00	0.000E+00	5.548E-08
A	8.9	0.68	6000.	0.	131.		944.7	1000.0	0.0	0.000E+00	0.000E+00	3.749E-08
B	1.7	0.15	6000.	0.	131.		710.5	776.1	0.0	0.000E+00	0.000E+00	3.376E-07
B	3.6	1.35	6000.	0.	131.		710.5	776.1	0.0	0.000E+00	0.000E+00	1.575E-07
B	6.0	0.98	6000.	0.	131.		710.5	776.1	0.0	0.000E+00	0.000E+00	9.452E-08
B	8.9	0.15	6000.	0.	131.		710.5	776.1	0.0	0.000E+00	0.000E+00	6.387E-08
B	11.6	0.08	6000.	0.	131.		710.5	776.1	0.0	0.000E+00	0.000E+00	4.923E-08
C	1.7	0.90	6000.	0.	131.		539.5	312.6	0.0	0.000E+00	0.000E+00	1.025E-06
C	3.6	2.10	6000.	0.	131.		539.5	312.6	0.0	0.000E+00	0.000E+00	4.783E-07
C	6.0	0.68	6000.	0.	131.		539.5	312.6	0.0	0.000E+00	0.000E+00	2.870E-07
C	8.9	0.30	6000.	0.	131.		539.5	312.6	0.0	0.000E+00	0.000E+00	1.939E-07
D	0.2	0.02	6000.	0.	131.		379.9	99.2	0.0	0.000E+00	0.000E+00	1.458E-05
D	1.7	8.10	6000.	0.	131.		379.9	99.2	0.0	0.000E+00	0.000E+00	2.083E-06
D	3.6	17.86	6000.	0.	131.		379.9	99.2	0.0	0.000E+00	0.000E+00	9.723E-07
D	6.0	18.83	6000.	0.	131.		379.9	99.2	0.0	0.000E+00	0.000E+00	5.834E-07
D	8.9	6.38	6000.	0.	131.		379.9	99.2	0.0	0.000E+00	0.000E+00	3.942E-07
D	11.6	0.98	6000.	0.	131.		379.9	99.2	0.0	0.000E+00	0.000E+00	3.038E-07
D	26.5	0.90	6000.	0.	131.		379.9	99.2	0.0	0.000E+00	0.000E+00	1.326E-07
E	0.3	0.02	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06
E	1.8	2.70	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06
E	3.9	11.25	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07
E	6.5	11.71	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07
E	9.6	1.95	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07
E	12.5	0.60	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07
E	28.5	0.08	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08
F	0.3	0.02	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06
F	1.8	1.65	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07
F	3.9	2.55	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07
F	6.5	0.98	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07
F	9.6	0.08	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07
G	1.8	0.83	90000.	0.	131.		1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	1.65	90000.	0.	131.		1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08

G	6.5	0.30	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
---	-----	------	--------	----	------	--------	------	-----	-----------	-----------	-----------

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 865 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

SW SECTOR BOUNDARY DISTANCE = 6000.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED. THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR. THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.458E-05	8.835E-06	4.813E-06	2.083E-06	1.262E-06	1.025E-06	9.723E-07	6.875E-07	5.890E-07	5.834E-07
0.018	0.038	0.057	8.160	10.861	11.762	29.619	31.270	42.525	61.358
0.00057	0.00117	0.00176	0.25367	0.33764	0.36563	0.92077	0.97209	1.32197	1.90743
4.783E-07	3.942E-07	3.534E-07	3.376E-07	3.208E-07	3.038E-07	2.870E-07	2.388E-07	1.939E-07	1.925E-07
63.459	69.837	81.542	81.692	84.243	85.219	85.894	87.845	88.145	89.120
1.97274	2.17101	2.53488	2.53955	2.61885	2.64917	2.67017	2.73081	2.74014	2.77047
1.841E-07	1.575E-07	1.326E-07	1.301E-07	9.452E-08	9.247E-08	8.032E-08	6.449E-08	6.387E-08	5.548E-08
89.721	91.071	91.972	92.047	93.022	94.748	94.823	95.648	95.798	97.299
2.78913	2.83111	2.85910	2.86143	2.89176	2.94541	2.94774	2.97340	2.97806	3.02471
4.923E-08	3.749E-08	3.010E-08	1.806E-08						
97.374	98.049	99.700	100.000						
3.02704	3.04804	3.09935	3.10868						

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED. THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.253
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 0.920

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 1.905
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 2.532
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(6)= 2.616
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(7)= 2.647
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(8)= 2.668
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(9)= 2.728
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(10)= 2.828

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
3	1	-11.13557	-16.51911	-1.22654
3	2	-13.08148	-17.88046	-1.71227
3	3	-13.84362	-18.08573	-1.79934
3	4	-14.35445	-23.07111	-4.20345
3	5	-14.85564	-28.33931	-6.89892
3	6	-14.95230	-36.23275	-10.96676
3	7	-15.00677	-47.38208	-16.72725
3	8	-15.06383	-51.57294	-18.89635
3	9	-15.24768	-66.16190	-26.48551
3	10	-15.66360	NUMXQ(K)= 10	
		4.454E-06	0.031	1.000
		3.042E-06	0.093	3.000
		2.518E-06	0.155	5.000
		1.860E-06	0.311	10.000
		1.473E-06	0.466	15.000
		1.241E-06	0.622	20.000
		1.082E-06	0.777	25.000
		9.640E-07	0.933	30.000
		8.687E-07	1.088	35.000
		7.924E-07	1.243	40.000
		7.296E-07	1.399	45.000
		6.770E-07	1.554	50.000
		6.320E-07	1.710	55.000
		5.931E-07	1.865	60.000
		5.279E-07	2.021	65.000
		4.638E-07	2.176	70.000
		4.105E-07	2.332	75.000
		3.658E-07	2.487	80.000
		3.076E-07	2.642	85.000
		1.806E-07	2.798	90.000
		1.414E-06	0.5	16.08

ANNUAL AVERAGE = 1.14E-08

K= 3 FIVEXQ(K)= 1.414E-06 FIVEPR(K)=16.084

FUMIGATION X/Q AT THE BOUNDARY: 8.14E-06

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	9.858E-01	9.154E-01	4.157E-01	3.613E-01	2.081E-01	1.693E-02
3.902	6.603	10.580	63.646	68.917	97.224	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 01/28/03

Page 867 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE WSW SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	3.6	2.58	6000.	0.	131.		131.		944.7	1000.0	0.0	0.000E+00	0.000E+00	9.247E-08
A	6.0	1.92	6000.	0.	131.		131.		944.7	1000.0	0.0	0.000E+00	0.000E+00	5.548E-08
A	8.9	1.19	6000.	0.	131.		131.		944.7	1000.0	0.0	0.000E+00	0.000E+00	3.749E-08
A	11.6	0.07	6000.	0.	131.		131.		944.7	1000.0	0.0	0.000E+00	0.000E+00	2.890E-08
B	1.7	0.59	6000.	0.	131.		131.		710.5	776.1	0.0	0.000E+00	0.000E+00	3.376E-07
B	3.6	1.65	6000.	0.	131.		131.		710.5	776.1	0.0	0.000E+00	0.000E+00	1.575E-07
B	6.0	0.99	6000.	0.	131.		131.		710.5	776.1	0.0	0.000E+00	0.000E+00	9.452E-08
B	8.9	0.07	6000.	0.	131.		131.		710.5	776.1	0.0	0.000E+00	0.000E+00	6.387E-08
C	1.7	0.99	6000.	0.	131.		131.		539.5	312.6	0.0	0.000E+00	0.000E+00	1.025E-06
C	3.6	2.44	6000.	0.	131.		131.		539.5	312.6	0.0	0.000E+00	0.000E+00	4.783E-07
C	6.0	1.12	6000.	0.	131.		131.		539.5	312.6	0.0	0.000E+00	0.000E+00	2.870E-07
C	8.9	0.20	6000.	0.	131.		131.		539.5	312.6	0.0	0.000E+00	0.000E+00	1.939E-07
D	0.2	0.02	6000.	0.	131.		131.		379.9	99.2	0.0	0.000E+00	0.000E+00	1.458E-05
D	1.7	7.86	6000.	0.	131.		131.		379.9	99.2	0.0	0.000E+00	0.000E+00	2.083E-06
D	3.6	22.19	6000.	0.	131.		131.		379.9	99.2	0.0	0.000E+00	0.000E+00	9.723E-07
D	6.0	18.36	6000.	0.	131.		131.		379.9	99.2	0.0	0.000E+00	0.000E+00	5.834E-07
D	8.9	4.43	6000.	0.	131.		131.		379.9	99.2	0.0	0.000E+00	0.000E+00	3.942E-07
D	11.6	0.73	6000.	0.	131.		131.		379.9	99.2	0.0	0.000E+00	0.000E+00	3.038E-07
D	26.5	0.13	6000.	0.	131.		131.		379.9	99.2	0.0	0.000E+00	0.000E+00	1.326E-07
E	0.3	0.03	9000.	0.	131.		131.		389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06
E	1.8	4.03	9000.	0.	131.		131.		389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06
E	3.9	14.46	9000.	0.	131.		131.		389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07
E	6.5	6.67	9000.	0.	131.		131.		389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07
E	9.6	0.73	9000.	0.	131.		131.		389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07
E	12.5	0.26	9000.	0.	131.		131.		389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07
E	28.5	0.07	9000.	0.	131.		131.		389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08
F	0.3	0.02	90000.	0.	131.		131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06
F	1.8	1.72	90000.	0.	131.		131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07
F	3.9	1.92	90000.	0.	131.		131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07
F	6.5	0.53	90000.	0.	131.		131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07
G	1.8	0.66	90000.	0.	131.		131.		1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	1.25	90000.	0.	131.		131.		1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	0.13	90000.	0.	131.		131.		1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 868 of 1411**

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

WSW SECTOR BOUNDARY DISTANCE = 6000.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.
THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.
THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.458E-05	8.835E-06	4.813E-06	2.083E-06	1.262E-06	1.025E-06	9.723E-07	6.875E-07	5.890E-07	5.834E-07
0.018	0.046	0.066	7.926	11.955	12.946	35.139	36.856	51.321	69.683
0.00063	0.00164	0.00234	0.27991	0.42219	0.45718	1.24091	1.30156	1.81238	2.46082
4.783E-07	3.942E-07	3.534E-07	3.376E-07	3.208E-07	3.038E-07	2.870E-07	2.388E-07	1.939E-07	1.925E-07
72.127	76.552	83.223	83.818	85.733	86.460	87.583	88.309	88.507	89.036
2.54712	2.70340	2.93899	2.95998	3.02762	3.05328	3.09293	3.11859	3.12559	3.14425
1.841E-07	1.575E-07	1.326E-07	9.452E-08	9.247E-08	8.032E-08	6.449E-08	6.387E-08	5.548E-08	3.749E-08
89.300	90.951	91.083	92.074	94.650	94.716	95.377	95.443	97.358	98.547
3.15358	3.21189	3.21656	3.25155	3.34251	3.34485	3.36817	3.37050	3.43815	3.48013
3.010E-08	2.890E-08	1.806E-08							
99.802	99.868	100.000							
3.52445	3.52678	3.53145							

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2) = 0.280

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3) = 1.239

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (4) = 2.458
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (5) = 2.936
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (6) = 3.025
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (7) = 3.090
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (8) = 3.339

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
4	1	-11.13557	-16.45710	-1.21828
4	2	-13.08148	-17.09514	-1.44855
4	3	-13.84362	-17.97535	-1.84069
4	4	-14.35445	-27.17761	-6.51867
4	5	-14.85564	-28.81307	-7.38388
4	6	-14.95230	-37.12135	-11.80984
4	7	-15.06383	-76.13788	-32.69972
4	8	-16.19638	NUMXQ(K) = 8	
		4.416E-06	0.035	1.000
		3.012E-06	0.106	3.000
		2.491E-06	0.177	5.000
		1.865E-06	0.353	10.000
		1.527E-06	0.530	15.000
		1.318E-06	0.706	20.000
		1.171E-06	0.883	25.000
		1.061E-06	1.059	30.000
		9.744E-07	1.236	35.000
		8.861E-07	1.413	40.000
		8.132E-07	1.589	45.000
		7.521E-07	1.766	50.000
		7.001E-07	1.942	55.000
		6.552E-07	2.119	60.000
		6.159E-07	2.295	65.000
		5.760E-07	2.472	70.000
		4.749E-07	2.649	75.000
		3.956E-07	2.825	80.000
		3.300E-07	3.002	85.000
		1.932E-07	3.178	90.000
		1.572E-06	0.5	14.16

ANNUAL AVERAGE = 1.39E-08

K= 4 FIVEXQ(K) = 1.572E-06 FIVEPR(K) = 14.158

FUMIGATION X/Q AT THE BOUNDARY: 8.14E-06

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	9.858E-01	9.154E-01	4.157E-01	3.613E-01	2.081E-01	1.693E-02
5.746	9.049	13.804	67.521	71.702	97.952	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 01/28/03

Page 870 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE W SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER BLDG WAKE USED
AT 131.4 METERS												
CA=1292.SQ.METERS												
A	1.7	0.15	6000.	0.	131.		944.7	1000.0	0.0	0.000E+00	0.000E+00	1.982E-07
A	3.6	4.26	6000.	0.	131.		944.7	1000.0	0.0	0.000E+00	0.000E+00	9.247E-08
A	6.0	2.25	6000.	0.	131.		944.7	1000.0	0.0	0.000E+00	0.000E+00	5.548E-08
A	8.9	0.34	6000.	0.	131.		944.7	1000.0	0.0	0.000E+00	0.000E+00	3.749E-08
B	1.7	0.24	6000.	0.	131.		710.5	776.1	0.0	0.000E+00	0.000E+00	3.376E-07
B	3.6	2.74	6000.	0.	131.		710.5	776.1	0.0	0.000E+00	0.000E+00	1.575E-07
B	6.0	0.59	6000.	0.	131.		710.5	776.1	0.0	0.000E+00	0.000E+00	9.452E-08
B	8.9	0.05	6000.	0.	131.		710.5	776.1	0.0	0.000E+00	0.000E+00	6.387E-08
C	1.7	0.05	6000.	0.	131.		539.5	312.6	0.0	0.000E+00	0.000E+00	1.025E-06
C	3.6	2.45	6000.	0.	131.		539.5	312.6	0.0	0.000E+00	0.000E+00	4.783E-07
C	6.0	0.68	6000.	0.	131.		539.5	312.6	0.0	0.000E+00	0.000E+00	2.870E-07
C	8.9	0.15	6000.	0.	131.		539.5	312.6	0.0	0.000E+00	0.000E+00	1.939E-07
C	11.6	0.05	6000.	0.	131.		539.5	312.6	0.0	0.000E+00	0.000E+00	1.495E-07
D	0.2	0.01	6000.	0.	131.		379.9	99.2	0.0	0.000E+00	0.000E+00	1.458E-05
D	1.7	5.63	6000.	0.	131.		379.9	99.2	0.0	0.000E+00	0.000E+00	2.083E-06
D	3.6	21.28	6000.	0.	131.		379.9	99.2	0.0	0.000E+00	0.000E+00	9.723E-07
D	6.0	16.19	6000.	0.	131.		379.9	99.2	0.0	0.000E+00	0.000E+00	5.834E-07
D	8.9	6.46	6000.	0.	131.		379.9	99.2	0.0	0.000E+00	0.000E+00	3.942E-07
D	11.6	1.57	6000.	0.	131.		379.9	99.2	0.0	0.000E+00	0.000E+00	3.038E-07
D	26.5	0.39	6000.	0.	131.		379.9	99.2	0.0	0.000E+00	0.000E+00	1.326E-07
E	0.3	0.02	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06
E	1.8	2.94	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06
E	3.9	13.85	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07
E	6.5	7.88	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07
E	9.6	2.84	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07
E	12.5	0.59	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07
E	28.5	0.98	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08
F	0.3	0.02	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06
F	1.8	1.52	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07
F	3.9	1.66	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07
F	6.5	0.64	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07
F	28.5	0.20	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	4.375E-08
G	1.8	0.64	90000.	0.	131.		1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08

Calculation No. PM-1055 Revision 0**Attachment J****Page 871 of 1411**

G	3.9	0.64	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	0.10	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 872 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

W SECTOR BOUNDARY DISTANCE = 6000.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.458E-05	8.835E-06	4.813E-06	2.083E-06	1.262E-06	1.025E-06	9.723E-07	6.875E-07	5.890E-07	5.834E-07
0.013	0.034	0.051	5.677	8.613	8.661	29.943	31.459	45.305	61.498
0.00061	0.00160	0.00244	0.27068	0.41063	0.41296	1.42761	1.49992	2.16002	2.93209
4.783E-07	3.942E-07	3.534E-07	3.376E-07	3.208E-07	3.038E-07	2.870E-07	2.388E-07	1.982E-07	1.939E-07
63.944	70.402	78.278	78.523	80.186	81.752	82.437	85.274	85.421	85.568
3.04871	3.35661	3.73214	3.74381	3.82311	3.89775	3.93041	4.06569	4.07269	4.07969
1.925E-07	1.841E-07	1.575E-07	1.495E-07	1.326E-07	9.452E-08	9.247E-08	8.032E-08	6.449E-08	6.387E-08
86.204	86.791	89.531	89.579	89.971	90.558	94.814	95.793	96.429	96.478
4.11001	4.13800	4.26862	4.27096	4.28962	4.31761	4.52054	4.56719	4.59751	4.59984
5.548E-08	4.375E-08	3.749E-08	3.010E-08	1.806E-08					
98.728	98.924	99.266	99.902	100.000					
4.70714	4.71647	4.73280	4.76312	4.76778					

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.270
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 1.426

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (4)= 2.929
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (5)= 3.729
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (6)= 3.894
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (7)= 4.062
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (8)= 4.265

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
5	1	-11.13557	-16.47770	-1.22091
5	2	-13.08148	-16.66479	-1.28817
5	3	-13.84362	-17.58813	-1.70978
5	4	-14.35445	-23.11195	-4.63044
5	5	-14.85564	-28.34212	-7.56371
5	6	-15.00677	-36.71175	-12.31090
5	7	-15.24768	-47.06718	-18.25034
5	8	-15.66360	NUMXQ(K)= 8	
		3.943E-06	0.048	1.000
		2.663E-06	0.143	3.000
		2.190E-06	0.238	5.000
		1.633E-06	0.477	10.000
		1.359E-06	0.715	15.000
		1.186E-06	0.954	20.000
		1.064E-06	1.192	25.000
		9.710E-07	1.430	30.000
		8.744E-07	1.669	35.000
		7.970E-07	1.907	40.000
		7.332E-07	2.146	45.000
		6.797E-07	2.384	50.000
		6.339E-07	2.622	55.000
		5.942E-07	2.861	60.000
		5.209E-07	3.099	65.000
		4.470E-07	3.337	70.000
		3.869E-07	3.576	75.000
		3.277E-07	3.814	80.000
		2.432E-07	4.053	85.000
		1.599E-06	0.5	10.49

ANNUAL AVERAGE = 1.63E-08

K= 5 FIVEXQ(K)= 1.599E-06 FIVEPR(K)=10.487

FUMIGATION X/Q AT THE BOUNDARY: 8.14E-06

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	9.858E-01	9.154E-01	4.157E-01	3.613E-01	2.081E-01	1.693E-02
6.996	10.616	13.992	65.520	69.549	98.630	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 01/28/03

Page 874 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE WNW SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN HT	EFF PLUME HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	CHI/Q VALUES (SEC/CUBIC METER)	USED
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE
AT 131.4 METERS									CA=1292.SQ.METERS	
A	3.6	2.40	6000.	0.	131.	944.7	1000.0	0.0	0.000E+00	9.247E-08
A	6.0	2.40	6000.	0.	131.	944.7	1000.0	0.0	0.000E+00	5.548E-08
A	8.9	0.16	6000.	0.	131.	944.7	1000.0	0.0	0.000E+00	3.749E-08
A	11.6	0.05	6000.	0.	131.	944.7	1000.0	0.0	0.000E+00	2.890E-08
A	26.5	0.05	6000.	0.	131.	944.7	1000.0	0.0	0.000E+00	1.261E-08
B	3.6	1.58	6000.	0.	131.	710.5	776.1	0.0	0.000E+00	1.575E-07
B	6.0	1.36	6000.	0.	131.	710.5	776.1	0.0	0.000E+00	9.452E-08
B	8.9	0.11	6000.	0.	131.	710.5	776.1	0.0	0.000E+00	6.387E-08
B	11.6	0.05	6000.	0.	131.	710.5	776.1	0.0	0.000E+00	4.923E-08
C	3.6	3.54	6000.	0.	131.	539.5	312.6	0.0	0.000E+00	4.783E-07
C	6.0	1.42	6000.	0.	131.	539.5	312.6	0.0	0.000E+00	2.870E-07
C	8.9	0.22	6000.	0.	131.	539.5	312.6	0.0	0.000E+00	1.939E-07
C	11.6	0.11	6000.	0.	131.	539.5	312.6	0.0	0.000E+00	1.495E-07
D	0.2	0.01	6000.	0.	131.	379.9	99.2	0.0	0.000E+00	1.458E-05
D	1.7	4.69	6000.	0.	131.	379.9	99.2	0.0	0.000E+00	2.083E-06
D	3.6	16.58	6000.	0.	131.	379.9	99.2	0.0	0.000E+00	9.723E-07
D	6.0	16.79	6000.	0.	131.	379.9	99.2	0.0	0.000E+00	5.834E-07
D	8.9	7.63	6000.	0.	131.	379.9	99.2	0.0	0.000E+00	3.942E-07
D	11.6	1.42	6000.	0.	131.	379.9	99.2	0.0	0.000E+00	3.038E-07
D	26.5	0.11	6000.	0.	131.	379.9	99.2	0.0	0.000E+00	1.326E-07
E	0.3	0.02	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	8.835E-06
E	1.8	3.27	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	1.262E-06
E	3.9	10.91	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	5.890E-07
E	6.5	14.01	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	3.534E-07
E	9.6	3.44	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	2.388E-07
E	12.5	1.15	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	1.841E-07
E	28.5	0.22	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	8.032E-08
F	0.3	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	4.813E-06
F	1.8	1.25	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	6.875E-07
F	3.9	2.84	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	3.208E-07
F	6.5	1.31	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	1.925E-07
F	9.6	0.11	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	1.301E-07
F	28.5	0.05	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	4.375E-08

Calculation No. PM-1055 Revision 0**Attachment J****Page 875 of 1411**

G	1.8	0.27	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	0.33	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	0.11	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 01/28/03

Page 876 of 1411

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

WNW SECTOR BOUNDARY DISTANCE = 6000.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.458E-05	8.835E-06	4.813E-06	2.083E-06	1.262E-06	9.723E-07	6.875E-07	5.890E-07	5.834E-07	4.783E-07
0.011	0.034	0.048	4.738	8.010	24.586	25.841	36.746	53.541	57.086
0.00045	0.00145	0.00207	0.20267	0.34262	1.05170	1.10535	1.57186	2.29028	2.44189
3.942E-07	3.534E-07	3.208E-07	3.038E-07	2.870E-07	2.388E-07	1.939E-07	1.925E-07	1.841E-07	1.575E-07
64.720	78.734	81.569	82.987	84.405	87.840	88.058	89.367	90.512	92.093
2.76844	3.36790	3.48919	3.54984	3.61048	3.75743	3.76676	3.82274	3.87173	3.93937
1.495E-07	1.326E-07	1.301E-07	9.452E-08	9.247E-08	8.032E-08	6.449E-08	6.387E-08	5.548E-08	4.923E-08
92.202	92.311	92.420	93.784	96.183	96.401	96.674	96.783	99.182	99.237
3.94403	3.94870	3.95336	4.01168	4.11431	4.12364	4.13530	4.13997	4.24260	4.24493
4.375E-08	3.749E-08	3.010E-08	2.890E-08	1.806E-08	1.261E-08				
99.291	99.455	99.782	99.836	99.945	100.000				
4.24726	4.25426	4.26826	4.27059	4.27525	4.27759				

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.202
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 1.050

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4) = 2.288
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5) = 3.365
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(6) = 3.486
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(7) = 3.547
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(8) = 3.607
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(9) = 3.754
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(10) = 3.868
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(11) = 3.936

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
6	1	-11.13557	-16.65736	-1.24408
6	2	-13.08148	-16.94834	-1.34531
6	3	-13.84362	-17.64411	-1.64679
6	4	-14.35445	-20.31646	-2.98456
6	5	-14.85564	-25.92956	-6.05236
6	6	-14.95230	-27.59503	-6.97062
6	7	-15.00677	-28.37700	-7.40363
6	8	-15.06383	-33.18738	-10.07874
6	9	-15.24768	-48.84393	-18.87478
6	10	-15.50797	-49.84187	-19.43982
6	11	-15.66360	NUMXQ(K) = 11	
		3.693E-06	0.043	1.000
		2.484E-06	0.128	3.000
		2.036E-06	0.214	5.000
		1.499E-06	0.428	10.000
		1.240E-06	0.642	15.000
		1.078E-06	0.856	20.000
		9.622E-07	1.069	25.000
		8.577E-07	1.283	30.000
		7.765E-07	1.497	35.000
		7.112E-07	1.711	40.000
		6.572E-07	1.925	45.000
		6.116E-07	2.139	50.000
		5.639E-07	2.353	55.000
		5.048E-07	2.567	60.000
		4.552E-07	2.780	65.000
		4.132E-07	2.994	70.000
		3.771E-07	3.208	75.000
		3.384E-07	3.422	80.000
		2.779E-07	3.636	85.000
		1.934E-07	3.850	90.000
		1.395E-06	0.5	11.69

ANNUAL AVERAGE = 1.32E-08

K= 6 FIVEXQ(K) = 1.395E-06 FIVEPR(K)=11.689

FUMIGATION X/Q AT THE BOUNDARY: 8.14E-06

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01 9.858E-01 9.154E-01 4.157E-01 3.613E-01 2.081E-01 1.693E-02

5.071	8.179	13.469	60.701	66.278	99.291	100.000
-------	-------	--------	--------	--------	--------	---------

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 01/28/03

Page 879 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1 96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE NW SECTOR.

STABILITY CLASS	WINDSPEED METER/SEC	FREQUENCY PERCENT	DISTANCE METERS	TERRAIN METERS	HT METERS	EFF METERS	PLUME METERS	HT METERS	SIGMA-Y METERS	SIGMA-Z METERS	MEANDER-SY METERS	** CHI/Q VALUES (SEC/CUBIC METER)
												MEANDER BLDG WAKE USED
												CA=1292.SQ.METERS
A	3.6	0.17	6000.	0.	131.		944.7	1000.0	0.0	0.000E+00	0.000E+00	9.247E-08
A	6.0	0.87	6000.	0.	131.		944.7	1000.0	0.0	0.000E+00	0.000E+00	5.548E-08
A	8.9	0.56	6000.	0.	131.		944.7	1000.0	0.0	0.000E+00	0.000E+00	3.749E-08
B	1.7	0.09	6000.	0.	131.		710.5	776.1	0.0	0.000E+00	0.000E+00	3.376E-07
B	3.6	0.43	6000.	0.	131.		710.5	776.1	0.0	0.000E+00	0.000E+00	1.575E-07
B	6.0	1.17	6000.	0.	131.		710.5	776.1	0.0	0.000E+00	0.000E+00	9.452E-08
B	8.9	0.35	6000.	0.	131.		710.5	776.1	0.0	0.000E+00	0.000E+00	6.387E-08
B	11.6	0.04	6000.	0.	131.		710.5	776.1	0.0	0.000E+00	0.000E+00	4.923E-08
C	3.6	0.61	6000.	0.	131.		539.5	312.6	0.0	0.000E+00	0.000E+00	4.783E-07
C	6.0	2.69	6000.	0.	131.		539.5	312.6	0.0	0.000E+00	0.000E+00	2.870E-07
C	8.9	0.48	6000.	0.	131.		539.5	312.6	0.0	0.000E+00	0.000E+00	1.939E-07
D	0.2	0.00	6000.	0.	131.		379.9	99.2	0.0	0.000E+00	0.000E+00	1.458E-05
D	1.7	1.95	6000.	0.	131.		379.9	99.2	0.0	0.000E+00	0.000E+00	2.083E-06
D	3.6	14.72	6000.	0.	131.		379.9	99.2	0.0	0.000E+00	0.000E+00	9.723E-07
D	6.0	20.76	6000.	0.	131.		379.9	99.2	0.0	0.000E+00	0.000E+00	5.834E-07
D	8.9	6.99	6000.	0.	131.		379.9	99.2	0.0	0.000E+00	0.000E+00	3.942E-07
D	11.6	0.61	6000.	0.	131.		379.9	99.2	0.0	0.000E+00	0.000E+00	3.038E-07
D	26.5	0.30	6000.	0.	131.		379.9	99.2	0.0	0.000E+00	0.000E+00	1.326E-07
E	0.3	0.02	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06
E	1.8	2.65	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06
E	3.9	14.98	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07
E	6.5	15.16	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07
E	9.6	4.26	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07
E	12.5	0.69	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07
E	28.5	0.52	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08
F	0.3	0.01	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06
F	1.8	1.22	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07
F	3.9	3.52	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07
F	6.5	2.08	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07
F	9.6	0.30	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07
G	1.8	0.17	90000.	0.	131.		1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	1.22	90000.	0.	131.		1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	0.35	90000.	0.	131.		1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08

G	9.6	0.04	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08
---	-----	------	--------	----	------	--------	------	-----	-----------	-----------	-----------

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 881 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

NW SECTOR BOUNDARY DISTANCE = 6000.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.458E-05	8.835E-06	4.813E-06	2.083E-06	1.262E-06	9.723E-07	6.875E-07	5.890E-07	5.834E-07	4.783E-07
0.004	0.023	0.037	1.991	4.640	19.361	20.577	35.558	56.315	56.923
0.00024	0.00125	0.00200	0.10697	0.24925	1.03998	1.10529	1.91001	3.02496	3.05761
3.942E-07	3.534E-07	3.376E-07	3.208E-07	3.038E-07	2.870E-07	2.388E-07	1.939E-07	1.925E-07	1.841E-07
63.914	79.069	79.156	82.674	83.282	85.974	90.230	90.707	92.792	93.486
3.43315	4.24720	4.25186	4.44080	4.47345	4.61807	4.84666	4.87231	4.98428	5.02160
1.575E-07	1.326E-07	1.301E-07	9.452E-08	9.247E-08	8.032E-08	6.449E-08	6.387E-08	5.548E-08	4.923E-08
93.921	94.225	94.529	95.701	95.875	96.396	96.569	96.917	97.785	97.829
5.04492	5.06125	5.07758	5.14055	5.14989	5.17788	5.18721	5.20587	5.25252	5.25485
3.749E-08	3.010E-08	1.806E-08	1.220E-08						
98.393	99.609	99.957	100.000						
5.28517	5.35048	5.36914	5.37148						

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 3.022
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 4.244

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4) = 4.437
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5) = 4.614
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(6) = 4.843
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(7) = 5.018
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(8) = 5.249

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
7	1	-11.13557	-16.59419	-1.19290
7	2	-14.35445	-20.44596	-3.24438
7	3	-14.85564	-22.77790	-4.59774
7	4	-14.95230	-25.15130	-5.99217
7	5	-15.06383	-28.42161	-7.93481
7	6	-15.24768	-40.44551	-15.17694
7	7	-15.50797	-105.38750	-54.70049
7	8	-16.70720	NUMXQ(K) = 8	
		3.073E-06	0.054	1.000
		2.087E-06	0.161	3.000
		1.721E-06	0.269	5.000
		1.303E-06	0.537	10.000
		1.097E-06	0.806	15.000
		9.653E-07	1.074	20.000
		8.715E-07	1.343	25.000
		7.997E-07	1.611	30.000
		7.424E-07	1.880	35.000
		6.951E-07	2.149	40.000
		6.551E-07	2.417	45.000
		6.207E-07	2.686	50.000
		5.907E-07	2.954	55.000
		5.325E-07	3.223	60.000
		4.738E-07	3.491	65.000
		4.246E-07	3.760	70.000
		3.829E-07	4.029	75.000
		3.446E-07	4.297	80.000
		2.965E-07	4.566	85.000
		2.411E-07	4.834	90.000
		1.342E-06	0.5	9.31

ANNUAL AVERAGE = 1.40E-08

K= 7 FIVEXQ(K) = 1.342E-06 FIVEPR(K) = 9.308

FUMIGATION X/Q AT THE BOUNDARY: 8.14E-06

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	9.858E-01	9.154E-01	4.157E-01	3.613E-01	2.081E-01	1.693E-02
1.607	3.691	7.469	52.808	59.944	98.220	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 01/28/03

Page 883 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE NNW SECTOR.

STABILITY CLASS	WINDSPEED METER/SEC	FREQUENCY PERCENT	DISTANCE METERS	TERRAIN METERS	HT METERS	EFF PLUME METERS	HT METERS	SIGMA-Y METERS	SIGMA-Z METERS	MEANDER-SY METERS	** CHI/Q VALUES (SEC/CUBIC METER)	MEANDER	BLDG WAKE	USED
AT 131.4 METERS											CA=1292.SQ.METERS			
A	3.6	0.09	6000.	0.	131.	944.7	1000.0	0.0	0.000E+00	0.000E+00	9.247E-08			
A	6.0	0.09	6000.	0.	131.	944.7	1000.0	0.0	0.000E+00	0.000E+00	5.548E-08			
B	3.6	0.14	6000.	0.	131.	710.5	776.1	0.0	0.000E+00	0.000E+00	1.575E-07			
B	6.0	0.37	6000.	0.	131.	710.5	776.1	0.0	0.000E+00	0.000E+00	9.452E-08			
B	8.9	0.37	6000.	0.	131.	710.5	776.1	0.0	0.000E+00	0.000E+00	6.387E-08			
B	11.6	0.05	6000.	0.	131.	710.5	776.1	0.0	0.000E+00	0.000E+00	4.923E-08			
C	3.6	0.55	6000.	0.	131.	539.5	312.6	0.0	0.000E+00	0.000E+00	4.783E-07			
C	6.0	1.01	6000.	0.	131.	539.5	312.6	0.0	0.000E+00	0.000E+00	2.870E-07			
C	8.9	0.46	6000.	0.	131.	539.5	312.6	0.0	0.000E+00	0.000E+00	1.939E-07			
C	11.6	0.05	6000.	0.	131.	539.5	312.6	0.0	0.000E+00	0.000E+00	1.495E-07			
D	0.2	0.00	6000.	0.	131.	379.9	99.2	0.0	0.000E+00	0.000E+00	1.458E-05			
D	1.7	1.61	6000.	0.	131.	379.9	99.2	0.0	0.000E+00	0.000E+00	2.083E-06			
D	3.6	11.17	6000.	0.	131.	379.9	99.2	0.0	0.000E+00	0.000E+00	9.723E-07			
D	6.0	21.42	6000.	0.	131.	379.9	99.2	0.0	0.000E+00	0.000E+00	5.834E-07			
D	8.9	5.42	6000.	0.	131.	379.9	99.2	0.0	0.000E+00	0.000E+00	3.942E-07			
D	11.6	0.51	6000.	0.	131.	379.9	99.2	0.0	0.000E+00	0.000E+00	3.038E-07			
D	26.5	0.32	6000.	0.	131.	379.9	99.2	0.0	0.000E+00	0.000E+00	1.326E-07			
E	0.3	0.02	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06			
E	1.8	2.71	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06			
E	3.9	14.29	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07			
E	6.5	20.36	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07			
E	9.6	7.58	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07			
E	12.5	0.51	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07			
E	28.5	0.09	9000.	0.	131.	389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08			
F	0.3	0.02	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06			
F	1.8	1.47	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07			
F	3.9	4.14	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07			
F	6.5	3.63	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07			
F	9.6	0.37	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07			
G	1.8	0.41	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08			
G	3.9	0.46	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08			
G	6.5	0.28	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08			
G	9.6	0.05	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08			

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 884 of 1411**

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

NNW SECTOR BOUNDARY DISTANCE = 6000.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.458E-05	8.835E-06	4.813E-06	2.083E-06	1.262E-06	9.723E-07	6.875E-07	5.890E-07	5.834E-07	4.783E-07
0.004	0.023	0.040	1.648	4.360	15.528	16.999	31.292	52.709	53.260
0.00018	0.00116	0.00203	0.08366	0.22128	0.78809	0.86273	1.58814	2.67510	2.70309
3.942E-07	3.534E-07	3.208E-07	3.038E-07	2.870E-07	2.388E-07	1.939E-07	1.925E-07	1.841E-07	1.575E-07
58.683	79.043	83.179	83.685	84.696	92.279	92.739	96.369	96.875	97.013
2.97833	4.01164	4.22156	4.24722	4.29854	4.68340	4.70673	4.89100	4.91666	4.92365
1.495E-07	1.326E-07	1.301E-07	9.452E-08	9.247E-08	8.032E-08	6.449E-08	6.387E-08	5.548E-08	4.923E-08
97.059	97.380	97.748	98.116	98.208	98.300	98.713	99.081	99.173	99.219
4.92599	4.94231	4.96097	4.97963	4.98430	4.98896	5.00996	5.02862	5.03328	5.03561
3.010E-08	1.806E-08	1.220E-08							
99.678	99.954	100.000							
5.05894	5.07293	5.07527							

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE (2) =	2.672
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE (3) =	4.008

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (4) = 4.218
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (5) = 4.680
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (6) = 4.887
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (7) = 4.913

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
8	1	-11.13557	-16.65947	-1.19352
8	2	-14.35445	-19.68611	-2.76069
8	3	-14.85564	-21.95877	-4.05956
8	4	-14.95230	-25.31620	-6.00487
8	5	-15.24768	-32.57346	-10.33310
8	6	-15.46313	-44.84048	-17.74126
8	7	-15.50797	NUMXQ(K) = 7	
		2.941E-06	0.051	1.000
		2.000E-06	0.152	3.000
		1.650E-06	0.254	5.000
		1.252E-06	0.508	10.000
		1.055E-06	0.761	15.000
		9.291E-07	1.015	20.000
		8.393E-07	1.269	25.000
		7.707E-07	1.523	30.000
		7.159E-07	1.776	35.000
		6.706E-07	2.030	40.000
		6.323E-07	2.284	45.000
		5.994E-07	2.538	50.000
		5.544E-07	2.791	55.000
		4.989E-07	3.045	60.000
		4.522E-07	3.299	65.000
		4.123E-07	3.553	70.000
		3.779E-07	3.806	75.000
		3.455E-07	4.060	80.000
		3.018E-07	4.314	85.000
		2.565E-07	4.568	90.000
		1.260E-06	0.5	9.85

ANNUAL AVERAGE = 1.20E-08

K= 8 FIVEXQ(K) = 1.260E-06 FIVEPR(K) = 9.852

FUMIGATION X/Q AT THE BOUNDARY: 8.14E-06

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	9.858E-01	9.154E-01	4.157E-01	3.613E-01	2.081E-01	1.693E-02
0.184	1.103	3.171	43.618	53.241	98.805	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 01/28/03

Page 886 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE N SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)	MEANDER	BLDG WAKE	USED
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED	
AT 131.4 METERS												CA=1292.SQ.METERS			
A	6.0	0.28	6000.	0.	131.		944.7	1000.0	0.0	0.000E+00	0.000E+00	5.548E-08			
A	8.9	0.16	6000.	0.	131.		944.7	1000.0	0.0	0.000E+00	0.000E+00	3.749E-08			
B	3.6	0.07	6000.	0.	131.		710.5	776.1	0.0	0.000E+00	0.000E+00	1.575E-07			
B	6.0	0.58	6000.	0.	131.		710.5	776.1	0.0	0.000E+00	0.000E+00	9.452E-08			
B	8.9	0.72	6000.	0.	131.		710.5	776.1	0.0	0.000E+00	0.000E+00	6.387E-08			
B	11.6	0.12	6000.	0.	131.		710.5	776.1	0.0	0.000E+00	0.000E+00	4.923E-08			
B	26.5	0.02	6000.	0.	131.		710.5	776.1	0.0	0.000E+00	0.000E+00	2.148E-08			
C	3.6	0.44	6000.	0.	131.		539.5	312.6	0.0	0.000E+00	0.000E+00	4.783E-07			
C	6.0	1.68	6000.	0.	131.		539.5	312.6	0.0	0.000E+00	0.000E+00	2.870E-07			
C	8.9	1.56	6000.	0.	131.		539.5	312.6	0.0	0.000E+00	0.000E+00	1.939E-07			
C	11.6	0.21	6000.	0.	131.		539.5	312.6	0.0	0.000E+00	0.000E+00	1.495E-07			
C	26.5	0.02	6000.	0.	131.		539.5	312.6	0.0	0.000E+00	0.000E+00	6.522E-08			
D	0.2	0.00	6000.	0.	131.		379.9	99.2	0.0	0.000E+00	0.000E+00	1.458E-05			
D	1.7	0.96	6000.	0.	131.		379.9	99.2	0.0	0.000E+00	0.000E+00	2.083E-06			
D	3.6	7.00	6000.	0.	131.		379.9	99.2	0.0	0.000E+00	0.000E+00	9.723E-07			
D	6.0	16.51	6000.	0.	131.		379.9	99.2	0.0	0.000E+00	0.000E+00	5.834E-07			
D	8.9	11.24	6000.	0.	131.		379.9	99.2	0.0	0.000E+00	0.000E+00	3.942E-07			
D	11.6	2.31	6000.	0.	131.		379.9	99.2	0.0	0.000E+00	0.000E+00	3.038E-07			
D	26.5	0.68	6000.	0.	131.		379.9	99.2	0.0	0.000E+00	0.000E+00	1.326E-07			
E	0.3	0.01	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06			
E	1.8	1.63	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06			
E	3.9	10.14	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07			
E	6.5	20.78	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07			
E	9.6	12.03	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07			
E	12.5	1.49	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07			
E	28.5	0.14	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08			
F	0.3	0.01	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06			
F	1.8	0.54	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07			
F	3.9	3.13	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07			
F	6.5	3.03	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07			
F	9.6	1.03	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07			
G	1.8	0.40	90000.	0.	131.		1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08			
G	3.9	0.79	90000.	0.	131.		1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08			

Calculation No. PM-1055 Revision 0**Attachment J****Page 887 of 1411**

G	6.5	0.23	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	0.05	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 888 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

LOW POPULATION ZONE CALCULATIONS:

N SECTOR BOUNDARY DISTANCE = 6000.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.458E-05	8.835E-06	4.813E-06	2.083E-06	1.262E-06	9.723E-07	6.875E-07	5.890E-07	5.834E-07	4.783E-07
0.002	0.014	0.020	0.976	2.609	9.605	10.142	20.287	36.798	37.241
0.00022	0.00138	0.00200	0.09763	0.26091	0.96067	1.01431	2.02896	3.68039	3.72471
3.942E-07	3.534E-07	3.208E-07	3.038E-07	2.870E-07	2.388E-07	1.939E-07	1.925E-07	1.841E-07	1.575E-07
48.482	69.262	72.387	74.696	76.375	88.409	89.972	93.003	94.496	94.566
4.84898	6.92726	7.23982	7.47074	7.63868	8.84227	8.99854	9.30177	9.45105	9.45805
1.495E-07	1.326E-07	1.301E-07	9.452E-08	8.032E-08	6.522E-08	6.449E-08	6.387E-08	5.548E-08	4.923E-08
94.776	95.452	96.478	97.061	97.201	97.225	97.621	98.344	98.624	98.741
9.47904	9.54669	9.64932	9.70763	9.72163	9.72396	9.76361	9.83592	9.86391	9.87557
3.749E-08	3.010E-08	2.148E-08	1.806E-08	1.220E-08					
98.904	99.697	99.720	99.953	100.000					
9.89190	9.97121	9.97354	9.99686	10.00153					

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 3.677
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 6.923

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 8.839
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 9.448
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(6)= 9.646

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
9	1	-11.13557	-16.40726	-1.14718
9	2	-14.35445	-17.26705	-1.62766
9	3	-14.85564	-19.29724	-2.99800
9	4	-15.24768	-24.73082	-7.02063
9	5	-15.50797	-54.51611	-29.69384
9	6	-15.85517	NUMXQ(K)= 6	
		2.595E-06	0.100	1.000
		1.752E-06	0.300	3.000
		1.438E-06	0.500	5.000
		1.080E-06	1.000	10.000
		9.032E-07	1.500	15.000
		7.903E-07	2.000	20.000
		7.097E-07	2.500	25.000
		6.481E-07	3.000	30.000
		5.988E-07	3.501	35.000
		5.480E-07	4.001	40.000
		5.008E-07	4.501	45.000
		4.612E-07	5.001	50.000
		4.275E-07	5.501	55.000
		3.983E-07	6.001	60.000
		3.728E-07	6.501	65.000
		3.476E-07	7.001	70.000
		3.118E-07	7.501	75.000
		2.812E-07	8.001	80.000
		2.548E-07	8.501	85.000
		2.228E-07	9.001	90.000
		1.439E-06	0.5	5.00

ANNUAL AVERAGE = 1.96E-08

K= 9 FIVEXQ(K)= 1.439E-06 FIVEPR(K)= 4.999

FUMIGATION X/Q AT THE BOUNDARY: 8.14E-06

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	9.858E-01	9.154E-01	4.157E-01	3.613E-01	2.081E-01	1.693E-02
0.443	1.959	5.877	44.570	52.296	98.531	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 890 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE NNE SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	3.6	0.08	6000.	0.	131.		944.7	1000.0	0.0	0.000E+00	0.000E+00	9.247E-08		
A	6.0	0.28	6000.	0.	131.		944.7	1000.0	0.0	0.000E+00	0.000E+00	5.548E-08		
A	8.9	0.12	6000.	0.	131.		944.7	1000.0	0.0	0.000E+00	0.000E+00	3.749E-08		
B	3.6	0.16	6000.	0.	131.		710.5	776.1	0.0	0.000E+00	0.000E+00	1.575E-07		
B	6.0	0.56	6000.	0.	131.		710.5	776.1	0.0	0.000E+00	0.000E+00	9.452E-08		
B	8.9	0.36	6000.	0.	131.		710.5	776.1	0.0	0.000E+00	0.000E+00	6.387E-08		
B	11.6	0.08	6000.	0.	131.		710.5	776.1	0.0	0.000E+00	0.000E+00	4.923E-08		
C	3.6	0.20	6000.	0.	131.		539.5	312.6	0.0	0.000E+00	0.000E+00	4.783E-07		
C	6.0	1.47	6000.	0.	131.		539.5	312.6	0.0	0.000E+00	0.000E+00	2.870E-07		
C	8.9	0.95	6000.	0.	131.		539.5	312.6	0.0	0.000E+00	0.000E+00	1.939E-07		
D	0.2	0.00	6000.	0.	131.		379.9	99.2	0.0	0.000E+00	0.000E+00	1.458E-05		
D	1.7	0.91	6000.	0.	131.		379.9	99.2	0.0	0.000E+00	0.000E+00	2.083E-06		
D	3.6	7.60	6000.	0.	131.		379.9	99.2	0.0	0.000E+00	0.000E+00	9.723E-07		
D	6.0	16.91	6000.	0.	131.		379.9	99.2	0.0	0.000E+00	0.000E+00	5.834E-07		
D	8.9	6.60	6000.	0.	131.		379.9	99.2	0.0	0.000E+00	0.000E+00	3.942E-07		
D	11.6	0.64	6000.	0.	131.		379.9	99.2	0.0	0.000E+00	0.000E+00	3.038E-07		
D	26.5	0.36	6000.	0.	131.		379.9	99.2	0.0	0.000E+00	0.000E+00	1.326E-07		
E	0.3	0.02	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06		
E	1.8	2.23	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06		
E	3.9	12.73	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07		
E	6.5	22.95	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07		
E	9.6	9.07	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07		
E	12.5	0.76	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07		
E	28.5	0.16	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08		
F	0.3	0.01	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06		
F	1.8	1.27	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07		
F	3.9	5.61	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07		
F	6.5	4.42	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07		
F	9.6	0.91	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07		
F	12.5	0.12	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	1.003E-07		
G	1.8	0.36	90000.	0.	131.		1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08		
G	3.9	1.23	90000.	0.	131.		1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08		
G	6.5	0.84	90000.	0.	131.		1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08		

G	9.6	0.04	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08
---	-----	------	--------	----	------	--------	------	-----	-----------	-----------	-----------

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 01/28/03

Page 892 of 1411

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

NNE SECTOR BOUNDARY DISTANCE = 6000.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.458E-05	8.835E-06	4.813E-06	2.083E-06	1.262E-06	9.723E-07	6.875E-07	5.890E-07	5.834E-07	4.783E-07
0.002	0.018	0.033	0.948	3.175	10.773	12.046	24.776	41.682	41.881
0.00012	0.00105	0.00191	0.05556	0.18618	0.63169	0.70634	1.45274	2.44407	2.45573
3.942E-07	3.534E-07	3.208E-07	3.038E-07	2.870E-07	2.388E-07	1.939E-07	1.925E-07	1.841E-07	1.575E-07
48.485	71.438	77.047	77.683	79.155	88.225	89.180	93.595	94.351	94.510
2.84293	4.18879	4.51768	4.55500	4.64130	5.17312	5.22910	5.48801	5.53233	5.54166
1.326E-07	1.301E-07	1.003E-07	9.452E-08	9.247E-08	8.032E-08	6.449E-08	6.387E-08	5.548E-08	4.923E-08
94.868	95.783	95.903	96.460	96.539	96.698	97.056	97.414	97.693	97.772
5.56265	5.61630	5.62330	5.65595	5.66062	5.66995	5.69094	5.71193	5.72826	5.73293
3.749E-08	3.010E-08	1.806E-08	1.220E-08						
97.892	99.125	99.960	100.000						
5.73992	5.81223	5.86121	5.86355						

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.001
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 2.442

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 4.185
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 4.514
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(6)= 5.169
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(7)= 5.484
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(8)= 5.529

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
10	1	-11.13557	-16.26488	-1.08800
10	2	-11.63677	-16.69887	-1.19003
10	3	-14.35445	-18.46020	-2.08408
10	4	-14.85564	-19.54358	-2.71046
10	5	-14.95230	-22.61910	-4.52610
10	6	-15.24768	-27.33281	-7.42035
10	7	-15.46313	-33.48742	-11.26791
10	8	-15.50797	NUMXQ(K) = 8	
		2.662E-06	0.059	1.000
		1.804E-06	0.176	3.000
		1.486E-06	0.293	5.000
		1.123E-06	0.586	10.000
		9.441E-07	0.880	15.000
		8.300E-07	1.173	20.000
		7.486E-07	1.466	25.000
		6.864E-07	1.759	30.000
		6.367E-07	2.052	35.000
		5.956E-07	2.345	40.000
		5.448E-07	2.639	45.000
		4.951E-07	2.932	50.000
		4.534E-07	3.225	55.000
		4.179E-07	3.518	60.000
		3.872E-07	3.811	65.000
		3.605E-07	4.104	70.000
		3.321E-07	4.398	75.000
		2.958E-07	4.691	80.000
		2.592E-07	4.984	85.000
		2.221E-07	5.277	90.000
		1.200E-06	0.5	8.53

ANNUAL AVERAGE = 1.14E-08

K= 10 FIVEXQ(K)= 1.200E-06 FIVEPR(K)= 8.527

FUMIGATION X/Q AT THE BOUNDARY: 8.14E-06

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	9.858E-01	9.154E-01	4.157E-01	3.613E-01	2.081E-01	1.693E-02
0.477	1.631	4.256	37.276	49.623	97.534	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 01/28/03

Page 894 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE NE SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	3.6	0.09	6000.	0.	131.		944.7	1000.0	0.0	0.000E+00	0.000E+00	9.247E-08		
A	6.0	0.23	6000.	0.	131.		944.7	1000.0	0.0	0.000E+00	0.000E+00	5.548E-08		
A	8.9	0.09	6000.	0.	131.		944.7	1000.0	0.0	0.000E+00	0.000E+00	3.749E-08		
B	3.6	0.14	6000.	0.	131.		710.5	776.1	0.0	0.000E+00	0.000E+00	1.575E-07		
B	6.0	0.61	6000.	0.	131.		710.5	776.1	0.0	0.000E+00	0.000E+00	9.452E-08		
B	8.9	0.28	6000.	0.	131.		710.5	776.1	0.0	0.000E+00	0.000E+00	6.387E-08		
B	11.6	0.05	6000.	0.	131.		710.5	776.1	0.0	0.000E+00	0.000E+00	4.923E-08		
C	3.6	0.33	6000.	0.	131.		539.5	312.6	0.0	0.000E+00	0.000E+00	4.783E-07		
C	6.0	1.41	6000.	0.	131.		539.5	312.6	0.0	0.000E+00	0.000E+00	2.870E-07		
C	8.9	0.99	6000.	0.	131.		539.5	312.6	0.0	0.000E+00	0.000E+00	1.939E-07		
C	11.6	0.19	6000.	0.	131.		539.5	312.6	0.0	0.000E+00	0.000E+00	1.495E-07		
C	26.5	0.05	6000.	0.	131.		539.5	312.6	0.0	0.000E+00	0.000E+00	6.522E-08		
D	0.2	0.00	6000.	0.	131.		379.9	99.2	0.0	0.000E+00	0.000E+00	1.458E-05		
D	1.7	1.50	6000.	0.	131.		379.9	99.2	0.0	0.000E+00	0.000E+00	2.083E-06		
D	3.6	7.28	6000.	0.	131.		379.9	99.2	0.0	0.000E+00	0.000E+00	9.723E-07		
D	6.0	13.48	6000.	0.	131.		379.9	99.2	0.0	0.000E+00	0.000E+00	5.834E-07		
D	8.9	5.92	6000.	0.	131.		379.9	99.2	0.0	0.000E+00	0.000E+00	3.942E-07		
D	11.6	0.75	6000.	0.	131.		379.9	99.2	0.0	0.000E+00	0.000E+00	3.038E-07		
D	26.5	0.14	6000.	0.	131.		379.9	99.2	0.0	0.000E+00	0.000E+00	1.326E-07		
E	0.3	0.02	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06		
E	1.8	2.77	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06		
E	3.9	13.19	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07		
E	6.5	16.62	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07		
E	9.6	10.14	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07		
E	12.5	0.85	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07		
E	28.5	0.09	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08		
F	0.3	0.02	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06		
F	1.8	1.50	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07		
F	3.9	7.32	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07		
F	6.5	7.37	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07		
F	9.6	1.83	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07		
G	1.8	0.28	90000.	0.	131.		1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08		
G	3.9	1.69	90000.	0.	131.		1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08		

G	6.5	2.39	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	0.38	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 896 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

NE SECTOR BOUNDARY DISTANCE = 6000.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.458E-05	8.835E-06	4.813E-06	2.083E-06	1.262E-06	9.723E-07	6.875E-07	5.890E-07	5.834E-07	4.783E-07
0.003	0.023	0.040	1.543	4.313	11.591	13.093	26.286	39.761	40.090
0.00017	0.00115	0.00201	0.07665	0.21427	0.57581	0.65045	1.30589	1.97533	1.99165
3.942E-07	3.534E-07	3.208E-07	3.038E-07	2.870E-07	2.388E-07	1.939E-07	1.925E-07	1.841E-07	1.575E-07
46.006	62.627	69.951	70.702	72.111	82.252	83.238	90.610	91.455	91.596
2.28555	3.11126	3.47514	3.51246	3.58243	4.08626	4.13524	4.50145	4.54343	4.55043
1.495E-07	1.326E-07	1.301E-07	9.452E-08	9.247E-08	8.032E-08	6.522E-08	6.449E-08	6.387E-08	5.548E-08
91.783	91.924	93.755	94.366	94.460	94.554	94.601	94.882	95.164	95.399
4.55976	4.56676	4.65773	4.68805	4.69272	4.69738	4.69971	4.71371	4.72770	4.73937
4.923E-08	3.749E-08	3.010E-08	1.806E-08	1.220E-08					
95.446	95.540	97.230	99.624	100.000					
4.74170	4.74636	4.83033	4.94929	4.96795					

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.001
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 1.973

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (4) = 3.472
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (5) = 4.083
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (6) = 4.498
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (7) = 4.540

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
11	1	-11.13557	-16.77721	-1.21410
11	2	-11.63677	-16.92802	-1.24972
11	3	-14.35445	-19.40500	-2.45254
11	4	-14.95230	-22.16106	-3.97058
11	5	-15.24768	-23.48635	-4.73173
11	6	-15.46313	-32.69267	-10.16121
11	7	-15.50797	NUMXQ(K) = 7	
		2.725E-06	0.050	1.000
		1.821E-06	0.149	3.000
		1.490E-06	0.248	5.000
		1.116E-06	0.497	10.000
		9.331E-07	0.745	15.000
		8.174E-07	0.994	20.000
		7.351E-07	1.242	25.000
		6.725E-07	1.490	30.000
		6.226E-07	1.739	35.000
		5.798E-07	1.987	40.000
		5.141E-07	2.236	45.000
		4.608E-07	2.484	50.000
		4.167E-07	2.732	55.000
		3.795E-07	2.981	60.000
		3.479E-07	3.229	65.000
		3.204E-07	3.478	70.000
		2.829E-07	3.726	75.000
		2.513E-07	3.974	80.000
		2.220E-07	4.223	85.000
		1.954E-07	4.471	90.000
		1.113E-06	0.5	10.06

ANNUAL AVERAGE = 9.41E-09

K= 11 FIVEXQ(K)= 1.113E-06 FIVEPR(K)=10.065

FUMIGATION X/Q AT THE BOUNDARY: 8.14E-06

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	9.858E-01	9.154E-01	4.157E-01	3.613E-01	2.081E-01	1.693E-02
0.423	1.502	4.460	33.527	51.573	95.258	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 01/28/03

Page 898 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE ENE SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	**	CHI/Q	VALUES	(SEC/CUBIC METER)
CLASS	METER/SEC	PERCENT	METERS	METERS			METERS		METERS	METERS	METERS		MEANDER	BLDG	WAKE
AT 131.4 METERS												CA=1292.SQ.METERS			USED
A	6.0	0.33	6000.	0.			131.		944.7	1000.0	0.0		0.000E+00	0.000E+00	5.548E-08
A	8.9	0.14	6000.	0.			131.		944.7	1000.0	0.0		0.000E+00	0.000E+00	3.749E-08
A	11.6	0.09	6000.	0.			131.		944.7	1000.0	0.0		0.000E+00	0.000E+00	2.890E-08
A	26.5	0.09	6000.	0.			131.		944.7	1000.0	0.0		0.000E+00	0.000E+00	1.261E-08
B	3.6	0.05	6000.	0.			131.		710.5	776.1	0.0		0.000E+00	0.000E+00	1.575E-07
B	6.0	0.38	6000.	0.			131.		710.5	776.1	0.0		0.000E+00	0.000E+00	9.452E-08
B	8.9	0.89	6000.	0.			131.		710.5	776.1	0.0		0.000E+00	0.000E+00	6.387E-08
B	11.6	0.09	6000.	0.			131.		710.5	776.1	0.0		0.000E+00	0.000E+00	4.923E-08
B	26.5	0.05	6000.	0.			131.		710.5	776.1	0.0		0.000E+00	0.000E+00	2.148E-08
C	3.6	0.14	6000.	0.			131.		539.5	312.6	0.0		0.000E+00	0.000E+00	4.783E-07
C	6.0	1.22	6000.	0.			131.		539.5	312.6	0.0		0.000E+00	0.000E+00	2.870E-07
C	8.9	1.46	6000.	0.			131.		539.5	312.6	0.0		0.000E+00	0.000E+00	1.939E-07
C	11.6	0.19	6000.	0.			131.		539.5	312.6	0.0		0.000E+00	0.000E+00	1.495E-07
C	26.5	0.05	6000.	0.			131.		539.5	312.6	0.0		0.000E+00	0.000E+00	6.522E-08
D	0.2	0.00	6000.	0.			131.		379.9	99.2	0.0		0.000E+00	0.000E+00	1.458E-05
D	1.7	0.71	6000.	0.			131.		379.9	99.2	0.0		0.000E+00	0.000E+00	2.083E-06
D	3.6	6.02	6000.	0.			131.		379.9	99.2	0.0		0.000E+00	0.000E+00	9.723E-07
D	6.0	9.93	6000.	0.			131.		379.9	99.2	0.0		0.000E+00	0.000E+00	5.834E-07
D	8.9	8.94	6000.	0.			131.		379.9	99.2	0.0		0.000E+00	0.000E+00	3.942E-07
D	11.6	1.03	6000.	0.			131.		379.9	99.2	0.0		0.000E+00	0.000E+00	3.038E-07
D	26.5	0.28	6000.	0.			131.		379.9	99.2	0.0		0.000E+00	0.000E+00	1.326E-07
E	0.3	0.02	9000.	0.			131.		389.6	74.2	0.0		0.000E+00	0.000E+00	8.835E-06
E	1.8	2.54	9000.	0.			131.		389.6	74.2	0.0		0.000E+00	0.000E+00	1.262E-06
E	3.9	8.80	9000.	0.			131.		389.6	74.2	0.0		0.000E+00	0.000E+00	5.890E-07
E	6.5	13.97	9000.	0.			131.		389.6	74.2	0.0		0.000E+00	0.000E+00	3.534E-07
E	9.6	12.75	9000.	0.			131.		389.6	74.2	0.0		0.000E+00	0.000E+00	2.388E-07
E	12.5	1.41	9000.	0.			131.		389.6	74.2	0.0		0.000E+00	0.000E+00	1.841E-07
E	28.5	0.05	9000.	0.			131.		389.6	74.2	0.0		0.000E+00	0.000E+00	8.032E-08
F	0.3	0.02	90000.	0.			131.		1000.0	92.1	0.0		0.000E+00	0.000E+00	4.813E-06
F	1.8	1.55	90000.	0.			131.		1000.0	92.1	0.0		0.000E+00	0.000E+00	6.875E-07
F	3.9	5.50	90000.	0.			131.		1000.0	92.1	0.0		0.000E+00	0.000E+00	3.208E-07
F	6.5	8.33	90000.	0.			131.		1000.0	92.1	0.0		0.000E+00	0.000E+00	1.925E-07
F	9.6	5.13	90000.	0.			131.		1000.0	92.1	0.0		0.000E+00	0.000E+00	1.301E-07
F	12.5	0.85	90000.	0.			131.		1000.0	92.1	0.0		0.000E+00	0.000E+00	1.003E-07

G	1.8	0.85	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	1.60	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	3.29	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	1.22	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08
G	12.5	0.05	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	9.405E-09

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 900 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

ENE SECTOR BOUNDARY DISTANCE = 6000.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.458E-05	8.835E-06	4.813E-06	2.083E-06	1.262E-06	9.723E-07	6.875E-07	5.890E-07	5.834E-07	4.783E-07
0.002	0.020	0.038	0.743	3.283	9.305	10.857	19.654	29.579	29.721
0.00008	0.00098	0.00186	0.03685	0.16281	0.46137	0.53834	0.97453	1.46669	1.47369
3.942E-07	3.534E-07	3.208E-07	3.038E-07	2.870E-07	2.388E-07	1.939E-07	1.925E-07	1.841E-07	1.575E-07
38.658	52.630	58.133	59.168	60.391	73.140	74.598	82.924	84.335	84.382
1.91687	2.60963	2.88253	2.93385	2.99449	3.62661	3.69892	4.11177	4.18175	4.18408
1.495E-07	1.326E-07	1.301E-07	1.003E-07	9.452E-08	8.032E-08	6.522E-08	6.449E-08	6.387E-08	5.548E-08
84.570	84.853	89.980	90.827	91.203	91.250	91.297	92.144	93.038	93.367
4.19341	4.20741	4.46165	4.50364	4.52230	4.52463	4.52696	4.56895	4.61327	4.62959
4.923E-08	3.749E-08	3.010E-08	2.890E-08	2.148E-08	1.806E-08	1.261E-08	1.220E-08	9.405E-09	
93.461	93.602	95.202	95.296	95.343	98.636	98.730	99.953	100.000	
4.63426	4.64126	4.72056	4.72523	4.72756	4.89084	4.89550	4.95615	4.95848	

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (3) = 1.465

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (4) = 2.607

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 2.880
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(6)= 3.623
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(7)= 4.108
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(8)= 4.178
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(9)= 4.458
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(10)= 4.610

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
12	1	-11.13557	-15.67254	-0.94506
12	2	-11.63677	-17.18708	-1.29972
12	3	-14.35445	-18.95474	-2.11079
12	4	-14.85564	-19.20028	-2.23723
12	5	-14.95230	-20.41875	-2.87895
12	6	-15.24768	-21.92897	-3.71975
12	7	-15.46313	-25.34424	-5.68453
12	8	-15.50797	-35.18932	-11.37414
12	9	-15.85517	-91.92118	-44.74910
12	10	-16.56647	NUMXQ(K)= 10	
		2.481E-06	0.050	1.000
		1.631E-06	0.149	3.000
		1.324E-06	0.248	5.000
		9.808E-07	0.496	10.000
		8.141E-07	0.744	15.000
		7.094E-07	0.992	20.000
		6.353E-07	1.240	25.000
		5.765E-07	1.488	30.000
		5.062E-07	1.735	35.000
		4.511E-07	1.983	40.000
		4.068E-07	2.231	45.000
		3.702E-07	2.479	50.000
		3.387E-07	2.727	55.000
		3.083E-07	2.975	60.000
		2.783E-07	3.223	65.000
		2.529E-07	3.471	70.000
		2.288E-07	3.719	75.000
		2.048E-07	3.967	80.000
		1.765E-07	4.215	85.000
		1.295E-07	4.463	90.000
		9.771E-07	0.5	10.08

ANNUAL AVERAGE = 7.70E-09

K= 12 FIVEXQ(K)= 9.771E-07 FIVEPR(K)=10.084

FUMIGATION X/Q AT THE BOUNDARY: 8.14E-06

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	9.858E-01	9.154E-01	4.157E-01	3.613E-01	2.081E-01	1.693E-02
0.659	2.117	5.175	32.084	53.458	92.991	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 902 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE E SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)			
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG	WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS			
A	3.6	0.03	6000.	0.	131.		944.7	1000.0	0.0	0.000E+00	0.000E+00	9.247E-08			
A	6.0	0.24	6000.	0.	131.		944.7	1000.0	0.0	0.000E+00	0.000E+00	5.548E-08			
A	8.9	0.63	6000.	0.	131.		944.7	1000.0	0.0	0.000E+00	0.000E+00	3.749E-08			
A	11.6	0.42	6000.	0.	131.		944.7	1000.0	0.0	0.000E+00	0.000E+00	2.890E-08			
A	26.5	0.06	6000.	0.	131.		944.7	1000.0	0.0	0.000E+00	0.000E+00	1.261E-08			
B	3.6	0.12	6000.	0.	131.		710.5	776.1	0.0	0.000E+00	0.000E+00	1.575E-07			
B	6.0	0.63	6000.	0.	131.		710.5	776.1	0.0	0.000E+00	0.000E+00	9.452E-08			
B	8.9	0.81	6000.	0.	131.		710.5	776.1	0.0	0.000E+00	0.000E+00	6.387E-08			
B	11.6	0.36	6000.	0.	131.		710.5	776.1	0.0	0.000E+00	0.000E+00	4.923E-08			
B	26.5	0.18	6000.	0.	131.		710.5	776.1	0.0	0.000E+00	0.000E+00	2.148E-08			
C	3.6	0.15	6000.	0.	131.		539.5	312.6	0.0	0.000E+00	0.000E+00	4.783E-07			
C	6.0	1.25	6000.	0.	131.		539.5	312.6	0.0	0.000E+00	0.000E+00	2.870E-07			
C	8.9	1.67	6000.	0.	131.		539.5	312.6	0.0	0.000E+00	0.000E+00	1.939E-07			
C	11.6	0.86	6000.	0.	131.		539.5	312.6	0.0	0.000E+00	0.000E+00	1.495E-07			
C	26.5	0.39	6000.	0.	131.		539.5	312.6	0.0	0.000E+00	0.000E+00	6.522E-08			
D	0.2	0.00	6000.	0.	131.		379.9	99.2	0.0	0.000E+00	0.000E+00	1.458E-05			
D	1.7	0.78	6000.	0.	131.		379.9	99.2	0.0	0.000E+00	0.000E+00	2.083E-06			
D	3.6	4.21	6000.	0.	131.		379.9	99.2	0.0	0.000E+00	0.000E+00	9.723E-07			
D	6.0	8.98	6000.	0.	131.		379.9	99.2	0.0	0.000E+00	0.000E+00	5.834E-07			
D	8.9	11.78	6000.	0.	131.		379.9	99.2	0.0	0.000E+00	0.000E+00	3.942E-07			
D	11.6	6.71	6000.	0.	131.		379.9	99.2	0.0	0.000E+00	0.000E+00	3.038E-07			
D	26.5	2.68	6000.	0.	131.		379.9	99.2	0.0	0.000E+00	0.000E+00	1.326E-07			
E	0.3	0.01	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06			
E	1.8	1.61	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06			
E	3.9	5.16	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07			
E	6.5	11.78	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07			
E	9.6	15.99	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07			
E	12.5	2.33	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07			
E	28.5	0.27	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08			
F	0.3	0.01	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06			
F	1.8	0.89	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07			
F	3.9	2.54	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07			
F	6.5	5.91	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07			
F	9.6	5.01	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07			

Calculation No. PM-1055 Revision 0**Attachment J****Page 903 of 1411**

F	12.5	0.72	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.003E-07
G	1.8	0.39	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	1.19	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	2.06	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	1.16	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08
G	12.5	0.03	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	9.405E-09
G	28.5	0.03	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	4.104E-09

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 904 of 1411**

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

E SECTOR BOUNDARY DISTANCE = 6000.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.
THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.
THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.458E-05	8.835E-06	4.813E-06	2.083E-06	1.262E-06	9.723E-07	6.875E-07	5.890E-07	5.834E-07	4.783E-07
0.002	0.013	0.024	0.799	2.410	6.615	7.510	12.670	21.647	21.796
0.00014	0.00103	0.00184	0.06249	0.18844	0.51733	0.58731	0.99083	1.69292	1.70458
3.942E-07	3.534E-07	3.208E-07	3.038E-07	2.870E-07	2.388E-07	1.939E-07	1.925E-07	1.841E-07	1.575E-07
33.578	45.359	47.894	54.605	55.858	71.844	73.515	79.420	81.747	81.866
2.62593	3.54728	3.74554	4.27036	4.36833	5.61856	5.74918	6.21102	6.39296	6.40229
1.495E-07	1.326E-07	1.301E-07	1.003E-07	9.452E-08	9.247E-08	8.032E-08	6.522E-08	6.449E-08	6.387E-08
82.731	85.415	90.426	91.142	91.768	91.798	92.066	92.454	92.842	93.647
6.46993	6.67986	7.07172	7.12770	7.17669	7.17902	7.20001	7.23033	7.26066	7.32364
5.548E-08	4.923E-08	3.749E-08	3.010E-08	2.890E-08	2.148E-08	1.806E-08	1.261E-08	1.220E-08	9.405E-09
93.886	94.244	94.870	96.063	96.481	96.659	98.717	98.777	99.940	99.970
7.34230	7.37029	7.41927	7.51257	7.54523	7.55922	7.72017	7.72483	7.81580	7.81813
4.104E-09									
100.000									
7.82046									

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS

SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (2)= 0.001
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (3)= 1.691
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (4)= 3.544
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (5)= 4.267
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (6)= 5.615
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (7)= 6.389
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (8)= 7.068
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (9)= 7.320

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
13	1	-11.13557	-16.57738	-1.16045
13	2	-11.63677	-17.05544	-1.27273
13	3	-14.35445	-17.72073	-1.58623
13	4	-14.85564	-18.04054	-1.76329
13	5	-15.00677	-18.13363	-1.81739
13	6	-15.24768	-21.60121	-4.00106
13	7	-15.50797	-25.64651	-6.65736
13	8	-15.85517	-72.78736	-38.70951
13	9	-16.56647	NUMXQ(K)= 9	
		2.193E-06	0.078	1.000
		1.432E-06	0.235	3.000
		1.157E-06	0.391	5.000
		8.496E-07	0.782	10.000
		7.008E-07	1.173	15.000
		6.074E-07	1.564	20.000
		5.315E-07	1.955	25.000
		4.711E-07	2.346	30.000
		4.242E-07	2.737	35.000
		3.865E-07	3.128	40.000
		3.554E-07	3.519	45.000
		3.267E-07	3.910	50.000
		3.020E-07	4.301	55.000
		2.801E-07	4.692	60.000
		2.611E-07	5.083	65.000
		2.444E-07	5.474	70.000
		2.191E-07	5.865	75.000
		1.924E-07	6.256	80.000
		1.611E-07	6.647	85.000
		1.322E-07	7.038	90.000
		1.040E-06	0.5	6.39

ANNUAL AVERAGE = 1.16E-08

K= 13 FIVEXQ(K)= 1.040E-06 FIVEPR(K)= 6.393

FUMIGATION X/Q AT THE BOUNDARY: 8.14E-06

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01 9.858E-01 9.154E-01 4.157E-01 3.613E-01 2.081E-01 1.693E-02

1.372 3.460 7.785 42.921 57.994 95.138 100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 01/28/03

Page 907 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1 96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE ESE SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	6.0	0.24	6000.	0.	131.		944.7	1000.0	0.0	0.000E+00	0.000E+00	5.548E-08		
A	8.9	0.24	6000.	0.	131.		944.7	1000.0	0.0	0.000E+00	0.000E+00	3.749E-08		
A	11.6	0.05	6000.	0.	131.		944.7	1000.0	0.0	0.000E+00	0.000E+00	2.890E-08		
A	26.5	0.13	6000.	0.	131.		944.7	1000.0	0.0	0.000E+00	0.000E+00	1.261E-08		
B	3.6	0.08	6000.	0.	131.		710.5	776.1	0.0	0.000E+00	0.000E+00	1.575E-07		
B	6.0	0.24	6000.	0.	131.		710.5	776.1	0.0	0.000E+00	0.000E+00	9.452E-08		
B	8.9	0.53	6000.	0.	131.		710.5	776.1	0.0	0.000E+00	0.000E+00	6.387E-08		
B	11.6	0.37	6000.	0.	131.		710.5	776.1	0.0	0.000E+00	0.000E+00	4.923E-08		
B	26.5	0.19	6000.	0.	131.		710.5	776.1	0.0	0.000E+00	0.000E+00	2.148E-08		
C	3.6	0.13	6000.	0.	131.		539.5	312.6	0.0	0.000E+00	0.000E+00	4.783E-07		
C	6.0	0.69	6000.	0.	131.		539.5	312.6	0.0	0.000E+00	0.000E+00	2.870E-07		
C	8.9	1.57	6000.	0.	131.		539.5	312.6	0.0	0.000E+00	0.000E+00	1.939E-07		
C	11.6	0.80	6000.	0.	131.		539.5	312.6	0.0	0.000E+00	0.000E+00	1.495E-07		
C	26.5	0.72	6000.	0.	131.		539.5	312.6	0.0	0.000E+00	0.000E+00	6.522E-08		
D	0.2	0.00	6000.	0.	131.		379.9	99.2	0.0	0.000E+00	0.000E+00	1.458E-05		
D	1.7	1.01	6000.	0.	131.		379.9	99.2	0.0	0.000E+00	0.000E+00	2.083E-06		
D	3.6	2.59	6000.	0.	131.		379.9	99.2	0.0	0.000E+00	0.000E+00	9.723E-07		
D	6.0	9.48	6000.	0.	131.		379.9	99.2	0.0	0.000E+00	0.000E+00	5.834E-07		
D	8.9	17.99	6000.	0.	131.		379.9	99.2	0.0	0.000E+00	0.000E+00	3.942E-07		
D	11.6	11.96	6000.	0.	131.		379.9	99.2	0.0	0.000E+00	0.000E+00	3.038E-07		
D	26.5	4.03	6000.	0.	131.		379.9	99.2	0.0	0.000E+00	0.000E+00	1.326E-07		
E	0.3	0.01	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06		
E	1.8	0.96	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06		
E	3.9	3.68	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07		
E	6.5	9.45	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07		
E	9.6	15.56	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07		
E	12.5	2.96	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07		
E	28.5	0.32	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08		
F	0.3	0.01	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06		
F	1.8	0.75	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07		
F	3.9	1.76	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07		
F	6.5	3.74	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07		
F	9.6	3.68	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07		
F	12.5	0.48	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	1.003E-07		

G	1.8	0.37	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	0.93	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	1.17	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	1.04	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08
G	12.5	0.05	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	9.405E-09

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 909 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1 96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

ESE SECTOR BOUNDARY DISTANCE = 6000.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.458E-05	8.835E-06	4.813E-06	2.083E-06	1.262E-06	9.723E-07	6.875E-07	5.890E-07	5.834E-07	4.783E-07
0.002	0.009	0.018	1.032	1.993	4.582	5.329	9.012	18.488	18.621
0.00020	0.00080	0.00155	0.09019	0.17416	0.40041	0.46572	0.78761	1.61566	1.62732
3.942E-07	3.534E-07	3.208E-07	3.038E-07	2.870E-07	2.388E-07	1.939E-07	1.925E-07	1.841E-07	1.575E-07
36.610	46.059	47.820	59.778	60.472	76.032	77.607	81.343	84.306	84.386
3.19944	4.02516	4.17910	5.22407	5.28472	6.64458	6.78220	7.10875	7.36766	7.37466
1.495E-07	1.326E-07	1.301E-07	1.003E-07	9.452E-08	8.032E-08	6.522E-08	6.449E-08	6.387E-08	5.548E-08
85.187	89.217	92.900	93.381	93.621	93.941	94.662	95.036	95.569	95.810
7.44464	7.79685	8.11874	8.16072	8.18172	8.20971	8.27268	8.30534	8.35199	8.37298
4.923E-08	3.749E-08	3.010E-08	2.890E-08	2.148E-08	1.806E-08	1.261E-08	1.220E-08	9.405E-09	
96.183	96.423	97.358	97.411	97.598	98.772	98.906	99.947	100.000	
8.40564	8.42663	8.50827	8.51293	8.52926	8.63189	8.64355	8.73452	8.73919	

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 1.614
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 5.220

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4) = 6.641
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5) = 7.364
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(6) = 8.115
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(7) = 8.348

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
14	1	-11.13557	-17.14429	-1.30308
14	2	-14.35445	-17.05526	-1.26150
14	3	-15.00677	-18.24634	-1.99498
14	4	-15.24768	-22.50907	-4.83095
14	5	-15.50797	-25.21372	-6.69723
14	6	-15.85517	-80.56750	-46.30991
14	7	-16.56647	NUMXQ(K) = 7	
		2.118E-06	0.087	1.000
		1.363E-06	0.262	3.000
		1.093E-06	0.437	5.000
		7.934E-07	0.874	10.000
		6.495E-07	1.311	15.000
		5.605E-07	1.748	20.000
		4.992E-07	2.185	25.000
		4.527E-07	2.622	30.000
		4.159E-07	3.059	35.000
		3.857E-07	3.496	40.000
		3.603E-07	3.933	45.000
		3.386E-07	4.370	50.000
		3.197E-07	4.807	55.000
		3.027E-07	5.244	60.000
		2.798E-07	5.680	65.000
		2.598E-07	6.117	70.000
		2.422E-07	6.554	75.000
		2.102E-07	6.991	80.000
		1.788E-07	7.428	85.000
		1.458E-07	7.865	90.000
		1.029E-06	0.5	5.72

ANNUAL AVERAGE = 1.34E-08

K= 14 FIVEXQ(K) = 1.029E-06 FIVEPR(K) = 5.721

FUMIGATION X/Q AT THE BOUNDARY: 8.14E-06

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	9.858E-01	9.154E-01	4.157E-01	3.613E-01	2.081E-01	1.693E-02
0.667	2.082	6.005	53.063	63.481	96.423	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 01/28/03

Page 911 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE SE SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	6.0	0.04	6000.	0.	131.		944.7	1000.0	0.0	0.000E+00	0.000E+00	5.548E-08		
A	8.9	0.06	6000.	0.	131.		944.7	1000.0	0.0	0.000E+00	0.000E+00	3.749E-08		
A	26.5	0.02	6000.	0.	131.		944.7	1000.0	0.0	0.000E+00	0.000E+00	1.261E-08		
B	3.6	0.08	6000.	0.	131.		710.5	776.1	0.0	0.000E+00	0.000E+00	1.575E-07		
B	6.0	0.04	6000.	0.	131.		710.5	776.1	0.0	0.000E+00	0.000E+00	9.452E-08		
B	8.9	0.19	6000.	0.	131.		710.5	776.1	0.0	0.000E+00	0.000E+00	6.387E-08		
B	11.6	0.08	6000.	0.	131.		710.5	776.1	0.0	0.000E+00	0.000E+00	4.923E-08		
C	3.6	0.06	6000.	0.	131.		539.5	312.6	0.0	0.000E+00	0.000E+00	4.783E-07		
C	6.0	0.55	6000.	0.	131.		539.5	312.6	0.0	0.000E+00	0.000E+00	2.870E-07		
C	8.9	0.74	6000.	0.	131.		539.5	312.6	0.0	0.000E+00	0.000E+00	1.939E-07		
C	11.6	0.59	6000.	0.	131.		539.5	312.6	0.0	0.000E+00	0.000E+00	1.495E-07		
C	26.5	0.13	6000.	0.	131.		539.5	312.6	0.0	0.000E+00	0.000E+00	6.522E-08		
D	0.2	0.00	6000.	0.	131.		379.9	99.2	0.0	0.000E+00	0.000E+00	1.458E-05		
D	1.7	0.76	6000.	0.	131.		379.9	99.2	0.0	0.000E+00	0.000E+00	2.083E-06		
D	3.6	4.10	6000.	0.	131.		379.9	99.2	0.0	0.000E+00	0.000E+00	9.723E-07		
D	6.0	11.52	6000.	0.	131.		379.9	99.2	0.0	0.000E+00	0.000E+00	5.834E-07		
D	8.9	22.08	6000.	0.	131.		379.9	99.2	0.0	0.000E+00	0.000E+00	3.942E-07		
D	11.6	11.54	6000.	0.	131.		379.9	99.2	0.0	0.000E+00	0.000E+00	3.038E-07		
D	26.5	3.91	6000.	0.	131.		379.9	99.2	0.0	0.000E+00	0.000E+00	1.326E-07		
E	0.3	0.01	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06		
E	1.8	0.83	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06		
E	3.9	3.61	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07		
E	6.5	11.03	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07		
E	9.6	13.83	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07		
E	12.5	1.89	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07		
E	28.5	0.13	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08		
F	0.3	0.01	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06		
F	1.8	0.55	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07		
F	3.9	2.00	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07		
F	6.5	3.78	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07		
F	9.6	1.91	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07		
G	1.8	0.28	90000.	0.	131.		1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08		
G	3.9	1.49	90000.	0.	131.		1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08		

Calculation No. PM-1055 Revision 0**Attachment J****Page 912 of 1411**

G	6.5	1.95	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	0.19	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 913 of 1411**

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

SE SECTOR BOUNDARY DISTANCE = 6000.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.
THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.
THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.458E-05	8.835E-06	4.813E-06	2.083E-06	1.262E-06	9.723E-07	6.875E-07	5.890E-07	5.834E-07	4.783E-07
0.002	0.008	0.014	0.779	1.607	5.708	6.260	9.872	21.388	21.452
0.00019	0.00084	0.00154	0.08551	0.17648	0.62665	0.68730	1.08383	2.34806	2.35505
3.942E-07	3.534E-07	3.208E-07	3.038E-07	2.870E-07	2.388E-07	1.939E-07	1.925E-07	1.841E-07	1.575E-07
43.527	54.554	56.551	68.088	68.640	82.472	83.215	86.997	88.888	88.973
4.77855	5.98913	6.20838	7.47495	7.53559	9.05407	9.13570	9.55089	9.75849	9.76782
1.495E-07	1.326E-07	1.301E-07	9.452E-08	8.032E-08	6.522E-08	6.449E-08	6.387E-08	5.548E-08	4.923E-08
89.568	93.477	95.390	95.432	95.559	95.687	95.963	96.154	96.197	96.282
9.83313	10.26231	10.47224	10.47691	10.49090	10.50490	10.53522	10.55621	10.56088	10.57021
3.749E-08	3.010E-08	1.806E-08	1.261E-08	1.220E-08					
96.346	97.833	99.788	99.809	100.000					
10.57720	10.74048	10.95507	10.95741	10.97840					

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 2.346

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 5.985

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 7.471
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 9.051
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(6)= 9.755
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(7)= 10.469

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
15	1	-11.13557	-16.78156	-1.22144
15	2	-14.35445	-16.66476	-1.16267
15	3	-14.85564	-16.91057	-1.32064
15	4	-15.00677	-18.34843	-2.31806
15	5	-15.24768	-23.53292	-6.19389
15	6	-15.50797	-26.65115	-8.60064
15	7	-15.85517	NUMXQ(K)= 7	
		2.170E-06	0.110	1.000
		1.423E-06	0.329	3.000
		1.151E-06	0.549	5.000
		8.462E-07	1.098	10.000
		6.975E-07	1.647	15.000
		6.039E-07	2.196	20.000
		5.397E-07	2.745	25.000
		4.915E-07	3.294	30.000
		4.531E-07	3.842	35.000
		4.214E-07	4.391	40.000
		3.947E-07	4.940	45.000
		3.717E-07	5.489	50.000
		3.515E-07	6.038	55.000
		3.315E-07	6.587	60.000
		3.138E-07	7.136	65.000
		2.936E-07	7.685	70.000
		2.694E-07	8.234	75.000
		2.483E-07	8.783	80.000
		2.151E-07	9.332	85.000
		1.732E-07	9.881	90.000
		1.198E-06	0.5	4.55

ANNUAL AVERAGE = 1.83E-08

K= 15 FIVEXQ(K)= 1.198E-06 FIVEPR(K)= 4.554

FUMIGATION X/Q AT THE BOUNDARY: 8.14E-06

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	9.858E-01	9.154E-01	4.157E-01	3.613E-01	2.081E-01	1.693E-02
0.127	0.531	2.613	56.517	64.767	96.091	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 915 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1 96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE SSE SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	3.6	0.02	6000.	0.	131.		944.7	1000.0	0.0	0.000E+00	0.000E+00	9.247E-08		
A	6.0	0.17	6000.	0.	131.		944.7	1000.0	0.0	0.000E+00	0.000E+00	5.548E-08		
A	8.9	0.32	6000.	0.	131.		944.7	1000.0	0.0	0.000E+00	0.000E+00	3.749E-08		
A	11.6	0.02	6000.	0.	131.		944.7	1000.0	0.0	0.000E+00	0.000E+00	2.890E-08		
A	26.5	0.02	6000.	0.	131.		944.7	1000.0	0.0	0.000E+00	0.000E+00	1.261E-08		
B	3.6	0.06	6000.	0.	131.		710.5	776.1	0.0	0.000E+00	0.000E+00	1.575E-07		
B	6.0	0.48	6000.	0.	131.		710.5	776.1	0.0	0.000E+00	0.000E+00	9.452E-08		
B	8.9	0.71	6000.	0.	131.		710.5	776.1	0.0	0.000E+00	0.000E+00	6.387E-08		
B	11.6	0.11	6000.	0.	131.		710.5	776.1	0.0	0.000E+00	0.000E+00	4.923E-08		
C	3.6	0.48	6000.	0.	131.		539.5	312.6	0.0	0.000E+00	0.000E+00	4.783E-07		
C	6.0	2.16	6000.	0.	131.		539.5	312.6	0.0	0.000E+00	0.000E+00	2.870E-07		
C	8.9	2.01	6000.	0.	131.		539.5	312.6	0.0	0.000E+00	0.000E+00	1.939E-07		
C	11.6	0.37	6000.	0.	131.		539.5	312.6	0.0	0.000E+00	0.000E+00	1.495E-07		
D	0.2	0.00	6000.	0.	131.		379.9	99.2	0.0	0.000E+00	0.000E+00	1.458E-05		
D	1.7	1.08	6000.	0.	131.		379.9	99.2	0.0	0.000E+00	0.000E+00	2.083E-06		
D	3.6	8.31	6000.	0.	131.		379.9	99.2	0.0	0.000E+00	0.000E+00	9.723E-07		
D	6.0	20.04	6000.	0.	131.		379.9	99.2	0.0	0.000E+00	0.000E+00	5.834E-07		
D	8.9	19.82	6000.	0.	131.		379.9	99.2	0.0	0.000E+00	0.000E+00	3.942E-07		
D	11.6	5.23	6000.	0.	131.		379.9	99.2	0.0	0.000E+00	0.000E+00	3.038E-07		
D	26.5	1.36	6000.	0.	131.		379.9	99.2	0.0	0.000E+00	0.000E+00	1.326E-07		
E	0.3	0.01	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06		
E	1.8	0.73	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06		
E	3.9	4.38	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07		
E	6.5	11.10	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07		
E	9.6	10.11	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07		
E	12.5	0.93	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07		
E	28.5	0.22	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08		
F	0.3	0.01	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06		
F	1.8	0.48	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07		
F	3.9	2.09	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07		
F	6.5	2.72	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07		
F	9.6	0.69	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07		
F	12.5	0.11	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	1.003E-07		

Calculation No. PM-1055 Revision 0**Attachment J****Page 916 of 1411**

G	1.8	0.41	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	1.27	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	1.84	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	0.11	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08
G	28.5	0.02	90000.	0.	131.	1000 0	46.0	0.0	0.000E+00	0.000E+00	4.104E-09

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 917 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

SSE SECTOR BOUNDARY DISTANCE = 6000.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.458E-05	8.835E-06	4.813E-06	2.083E-06	1.262E-06	9.723E-07	6.875E-07	5.890E-07	5.834E-07	4.783E-07
0.002	0.008	0.013	1.093	1.827	10.141	10.617	15.000	35.041	35.516
0.00026	0.00083	0.00142	0.11805	0.19735	1.09537	1.14669	1.62019	3.78478	3.83609
3.942E-07	3.534E-07	3.208E-07	3.038E-07	2.870E-07	2.388E-07	1.939E-07	1.925E-07	1.841E-07	1.575E-07
55.341	66.441	68.535	73.762	75.921	86.028	88.036	90.757	91.686	91.751
5.97735	7.17627	7.40252	7.96699	8.20024	9.29187	9.50879	9.80269	9.90299	9.90998
1.495E-07	1.326E-07	1.301E-07	1.003E-07	9.452E-08	9.247E-08	8.032E-08	6.449E-08	6.387E-08	5.548E-08
92.118	93.478	94.169	94.277	94.752	94.774	94.990	95.400	96.113	96.286
9.94964	10.09659	10.17123	10.18289	10.23421	10.23654	10.25986	10.30418	10.38116	10.39982
4.923E-08	3.749E-08	3.010E-08	2.890E-08	1.806E-08	1.261E-08	1.220E-08	4.104E-09		
96.394	96.717	97.992	98.013	99.849	99.870	99.978	100.000		
10.41148	10.44647	10.58408	10.58642	10.78468	10.78701	10.79868	10.80101		

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(2) =	3.781
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(3) =	7.172

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 7.963
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 9.288
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(6)= 9.800
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(7)= 9.900
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(8)= 10.168
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(9)= 10.782

K	I	XQSAVE(K, I)	XQINT(K, I)	XQSLOP(K, I)
16	1	-11.13557	-16.41363	-1.15904
16	2	-14.35445	-17.19425	-1.59843
16	3	-14.85564	-18.83811	-2.72199
16	4	-15.00677	-19.02687	-2.85611
16	5	-15.24768	-24.70701	-7.14884
16	6	-15.46313	-25.49299	-7.75668
16	7	-15.50797	-44.80865	-22.76171
16	8	-15.85517	-90.12701	-58.38862
16	9	-17.82970	NUMXQ(K) = 9	
		2.605E-06	0.108	1.000
		1.747E-06	0.324	3.000
		1.429E-06	0.540	5.000
		1.067E-06	1.080	10.000
		8.887E-07	1.620	15.000
		7.754E-07	2.160	20.000
		6.946E-07	2.700	25.000
		6.330E-07	3.240	30.000
		5.837E-07	3.780	35.000
		5.287E-07	4.320	40.000
		4.833E-07	4.860	45.000
		4.452E-07	5.401	50.000
		4.127E-07	5.941	55.000
		3.846E-07	6.481	60.000
		3.599E-07	7.021	65.000
		3.279E-07	7.561	70.000
		2.961E-07	8.101	75.000
		2.679E-07	8.641	80.000
		2.434E-07	9.181	85.000
		1.992E-07	9.721	90.000
		1.474E-06	0.5	4.63

ANNUAL AVERAGE = 2.26E-08

K= 16 FIVEXQ(K)= 1.474E-06 FIVEPR(K)= 4.629

FUMIGATION X/Q AT THE BOUNDARY: 8.14E-06

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	9.858E-01	9.154E-01	4.157E-01	3.613E-01	2.081E-01	1.693E-02
0.561	1.922	6.932	62.780	68.876	96.350	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 01/28/03

Page 919 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE ALL SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 131.4 METERS												CA=1292.SQ.METERS		
A	1.7	0.01	6000.	0.	131.		944.7	1000.0	0.0	0.000E+00	0.000E+00	1.982E-07		
A	3.6	0.51	6000.	0.	131.		944.7	1000.0	0.0	0.000E+00	0.000E+00	9.247E-08		
A	6.0	0.53	6000.	0.	131.		944.7	1000.0	0.0	0.000E+00	0.000E+00	5.548E-08		
A	8.9	0.28	6000.	0.	131.		944.7	1000.0	0.0	0.000E+00	0.000E+00	3.749E-08		
A	11.6	0.06	6000.	0.	131.		944.7	1000.0	0.0	0.000E+00	0.000E+00	2.890E-08		
A	26.5	0.03	6000.	0.	131.		944.7	1000.0	0.0	0.000E+00	0.000E+00	1.261E-08		
B	1.7	0.05	6000.	0.	131.		710.5	776.1	0.0	0.000E+00	0.000E+00	3.376E-07		
B	3.6	0.47	6000.	0.	131.		710.5	776.1	0.0	0.000E+00	0.000E+00	1.575E-07		
B	6.0	0.54	6000.	0.	131.		710.5	776.1	0.0	0.000E+00	0.000E+00	9.452E-08		
B	8.9	0.44	6000.	0.	131.		710.5	776.1	0.0	0.000E+00	0.000E+00	6.387E-08		
B	11.6	0.12	6000.	0.	131.		710.5	776.1	0.0	0.000E+00	0.000E+00	4.923E-08		
B	26.5	0.03	6000.	0.	131.		710.5	776.1	0.0	0.000E+00	0.000E+00	2.148E-08		
C	1.7	0.08	6000.	0.	131.		539.5	312.6	0.0	0.000E+00	0.000E+00	1.025E-06		
C	3.6	0.77	6000.	0.	131.		539.5	312.6	0.0	0.000E+00	0.000E+00	4.783E-07		
C	6.0	1.33	6000.	0.	131.		539.5	312.6	0.0	0.000E+00	0.000E+00	2.870E-07		
C	8.9	1.04	6000.	0.	131.		539.5	312.6	0.0	0.000E+00	0.000E+00	1.939E-07		
C	11.6	0.30	6000.	0.	131.		539.5	312.6	0.0	0.000E+00	0.000E+00	1.495E-07		
C	26.5	0.13	6000.	0.	131.		539.5	312.6	0.0	0.000E+00	0.000E+00	6.522E-08		
D	0.2	0.00	6000.	0.	131.		379.9	99.2	0.0	0.000E+00	0.000E+00	1.458E-05		
D	1.7	2.07	6000.	0.	131.		379.9	99.2	0.0	0.000E+00	0.000E+00	2.083E-06		
D	3.6	9.39	6000.	0.	131.		379.9	99.2	0.0	0.000E+00	0.000E+00	9.723E-07		
D	6.0	15.72	6000.	0.	131.		379.9	99.2	0.0	0.000E+00	0.000E+00	5.834E-07		
D	8.9	12.23	6000.	0.	131.		379.9	99.2	0.0	0.000E+00	0.000E+00	3.942E-07		
D	11.6	4.24	6000.	0.	131.		379.9	99.2	0.0	0.000E+00	0.000E+00	3.038E-07		
D	26.5	1.39	6000.	0.	131.		379.9	99.2	0.0	0.000E+00	0.000E+00	1.326E-07		
E	0.3	0.01	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	8.835E-06		
E	1.8	1.97	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	1.262E-06		
E	3.9	8.90	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	5.890E-07		
E	6.5	13.85	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	3.534E-07		
E	9.6	9.53	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	2.388E-07		
E	12.5	1.29	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	1.841E-07		
E	28.5	0.23	9000.	0.	131.		389.6	74.2	0.0	0.000E+00	0.000E+00	8.032E-08		
F	0.3	0.01	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	4.813E-06		
F	1.8	1.01	90000.	0.	131.		1000.0	92.1	0.0	0.000E+00	0.000E+00	6.875E-07		

Calculation No. PM-1055 Revision 0**Attachment J****Page 920 of 1411**

F	3.9	3.14	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	3.208E-07
F	6.5	3.52	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.925E-07
F	9.6	1.55	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.301E-07
F	12.5	0.16	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	1.003E-07
F	28.5	0.01	90000.	0.	131.	1000.0	92.1	0.0	0.000E+00	0.000E+00	4.375E-08
G	1.8	0.43	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.449E-08
G	3.9	1.17	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.010E-08
G	6.5	1.14	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.806E-08
G	9.6	0.31	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.220E-08
G	12.5	0.01	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	9.405E-09
G	28.5	0.00	90000.	0.	131.	1000.0	46.0	0.0	0.000E+00	0.000E+00	4.104E-09

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 921 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

DIRECTION-INDEPENDENT (S.R.P 2.3.4) MODEL.

MINIMUM BOUNDARY DISTANCE = 6000.0 METERS.

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.458E-05	8.835E-06	4.813E-06	2.083E-06	1.262E-06	1.025E-06	9.723E-07	6.875E-07	5.890E-07	5.834E-07
0.005	0.019	0.030	2.097	4.063	4.140	13.531	14.541	23.437	39.156
0.00467	0.01866	0.03032	2.09694	4.06326	4.14023	13.53097	14.54096	23.43721	39.15609
4.783E-07	3.942E-07	3.534E-07	3.376E-07	3.208E-07	3.038E-07	2.870E-07	2.388E-07	1.982E-07	1.939E-07
39.921	52.151	65.996	66.043	69.185	73.426	74.755	84.281	84.288	85.331
39.92116	52.15059	65.99645	66.04311	69.18501	73.42554	74.75509	84.28111	84.28811	85.33075
1.925E-07	1.841E-07	1.575E-07	1.495E-07	1.326E-07	1.301E-07	1.003E-07	9.452E-08	9.247E-08	8.032E-08
88.848	90.143	90.614	90.917	92.305	93.858	94.019	94.563	95.076	95.305
88.84820	90.14275	90.61391	90.91714	92.30499	93.85845	94.01939	94.56287	95.07603	95.30461
6.522E-08	6.449E-08	6.387E-08	5.548E-08	4.923E-08	4.375E-08	3.749E-08	3.010E-08	2.890E-08	2.148E-08
95.431	95.864	96.305	96.837	96.958	96.970	97.248	98.421	98.479	98.514
95.43056	95.86442	96.30527	96.83709	96.95838	96.97005	97.24762	98.42088	98.47919	98.51418
1.806E-08	1.261E-08	1.220E-08	9.405E-09	4.104E-09					
99.650	99.678	99.986	99.995	100.000					
99.65012	99.67811	99.98600	99.99533	99.99999					

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS

Calculation No. PM-1055 Revision 0

Attachment J

Page 922 of 1411

SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

3.594E-06	1.000	1.000
2.422E-06	3.000	3.000
1.965E-06	5.000	5.000
1.424E-06	10.000	10.000
1.146E-06	15.000	15.000
9.638E-07	20.000	20.000
8.311E-07	25.000	25.000
7.275E-07	30.000	30.000
6.431E-07	35.000	35.000
5.745E-07	40.000	40.000
5.256E-07	45.000	45.000
4.816E-07	50.000	50.000
4.413E-07	55.000	55.000
4.037E-07	60.000	60.000
3.683E-07	65.000	65.000
3.342E-07	70.000	70.000
3.010E-07	75.000	75.000
2.678E-07	80.000	80.000
2.322E-07	85.000	85.000
1.855E-07	90.000	90.000

1.965E-06	5.0	5.00
-----------	-----	------

K= 17 FIVEXQ(K)= 1.965E-06 FIVEPR(K)= 5.000

FUMIGATION X/Q AT THE BOUNDARY: 8.14E-06

EXPONENTIAL TERM AND FREQUENCIES

9.914E-01	9.858E-01	9.154E-01	4.157E-01	3.613E-01	2.081E-01	1.693E-02
1.416	3.074	6.718	51.756	61.163	96.935	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 923 of 1411**

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

FIVE PERCENT OVERALL SITE LIMIT

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.458E-05	8.835E-06	4.813E-06	2.083E-06	1.262E-06	1.025E-06	9.723E-07	6.875E-07	5.890E-07	5.834E-07
0.005	0.019	0.030	2.097	4.063	4.140	13.531	14.541	23.437	39.156
0.00467	0.01866	0.03032	2.09694	4.06326	4.14023	13.53098	14.54096	23.43721	39.15609
4.783E-07	3.942E-07	3.534E-07	3.376E-07	3.208E-07	3.038E-07	2.870E-07	2.388E-07	1.982E-07	1.939E-07
39.921	52.151	65.996	66.043	69.185	73.426	74.755	84.281	84.288	85.331
39.92115	52.15058	65.99645	66.04310	69.18502	73.42554	74.75509	84.28111	84.28811	85.33075
1.925E-07	1.841E-07	1.575E-07	1.495E-07	1.326E-07	1.301E-07	1.003E-07	9.452E-08	9.247E-08	8.032E-08
88.848	90.143	90.614	90.917	92.305	93.858	94.019	94.563	95.076	95.305
88.84819	90.14275	90.61391	90.91714	92.30499	93.85845	94.01939	94.56287	95.07601	95.30460
6.522E-08	6.449E-08	6.387E-08	5.548E-08	4.923E-08	4.375E-08	3.749E-08	3.010E-08	2.890E-08	2.148E-08
95.431	95.864	96.305	96.837	96.958	96.970	97.248	98.421	98.479	98.514
95.43056	95.86440	96.30526	96.83709	96.95839	96.97005	97.24761	98.42087	98.47917	98.51416
1.806E-08	1.261E-08	1.220E-08	9.405E-09	4.104E-09					
99.650	99.678	99.986	99.995	100.000					
99.65009	99.67808	99.98598	99.99531	99.99998					

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.556E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS

Calculation No. PM-1055 Revision 0

SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

Attachment J

Page 924 of 1411

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
18	1	-11.13557	-14.59797	-0.88611
18	2	-14.35445	-14.54610	-0.69736
18	3	-15.24768	-14.32519	-0.91695
18	4	-15.50797	-13.74062	-1.37013
18	5	-15.85517	-14.13937	-1.11176
18	6	-18.48202	NUMXQ(K) = 6	
		3.594E-06	1.000	1.000
		2.422E-06	3.000	3.000
		1.965E-06	5.000	5.000
		1.424E-06	10.000	10.000
		1.146E-06	15.000	15.000
		9.638E-07	20.000	20.000
		8.311E-07	25.000	25.000
		7.275E-07	30.000	30.000
		6.431E-07	35.000	35.000
		5.745E-07	40.000	40.000
		5.256E-07	45.000	45.000
		4.816E-07	50.000	50.000
		4.413E-07	55.000	55.000
		4.037E-07	60.000	60.000
		3.683E-07	65.000	65.000
		3.342E-07	70.000	70.000
		3.010E-07	75.000	75.000
		2.678E-07	80.000	80.000
		2.322E-07	85.000	85.000
		1.855E-07	90.000	90.000
		1.965E-06	5.0	5.00

K= 18 FIVEXQ(K) = 1.965E-06 FIVEPR(K) = 5.000

K	HIGHPR	PR	GRNDVT(K)
1	-2.71468	0.33170	6.21119
2	-1.41271	7.88698	3.52599
3	-2.64812	0.40471	3.10868
4	-2.58808	0.48257	3.53145
5	-2.57624	0.49942	4.76778
6	-2.67759	0.37078	4.27759
7	-2.72279	0.32367	5.37148
8	-2.77607	0.27511	5.07527
9	-2.66837	0.38110	10.00153
10	-2.81734	0.24212	5.86355
11	-2.86612	0.20778	4.96796
12	-2.95519	0.15625	4.95848
13	-2.91442	0.17818	7.82046
14	-2.91473	0.17800	8.73919
15	-2.81257	0.24574	10.97840
16	-2.64656	0.40658	10.80101

Calculation No. PM-1055 Revision 0

Attachment J

Page 925 of 1411

K	HOURS (K)	TOTHR
1	29.05691	29.05691
2	690.89960	719.95650
3	35.45256	755.40910
4	42.27271	797.68180
5	43.74879	841.43050
6	32.48003	873.91060
7	28.35307	902.26370
8	24.09922	926.36290
9	33.38438	959.74730
10	21.20971	980.95700
11	18.20116	999.15820
12	13.68729	1012.84600
13	15.60875	1028.45400
14	15.59309	1044.04700
15	21.52665	1065.57400
16	35.61651	1101.19000

K	FIVEXQ	SVANN	SLTIME	TIMINT	I	TIME	XQT
1	1.349E-06	1.557E-08	-0.5322	-13.1469	1	8.0	-14.25354
					2	16.0	-14.62242
					3	72.0	-15.42285
					4	624.0	-16.57208
2	1.179E-06	1.042E-08	-0.5639	-13.2601	1	8.0	-14.43266
					2	16.0	-14.82352
					3	72.0	-15.67165
					4	624.0	-16.88935
3	1.414E-06	1.138E-08	-0.5751	-13.0706	1	8.0	-14.26649
					2	16.0	-14.66512
					3	72.0	-15.53011
					4	624.0	-16.77203
4	1.572E-06	1.392E-08	-0.5637	-12.9726	1	8.0	-14.14482
					2	16.0	-14.53557
					3	72.0	-15.38346
					4	624.0	-16.60083
5	1.599E-06	1.630E-08	-0.5469	-12.9670	1	8.0	-14.10438
					2	16.0	-14.48349
					3	72.0	-15.30612
					4	624.0	-16.48723
6	1.395E-06	1.325E-08	-0.5554	-13.0976	1	8.0	-14.25241
					2	16.0	-14.63737
					3	72.0	-15.47269
					4	624.0	-16.67201
7	1.342E-06	1.402E-08	-0.5440	-13.1439	1	8.0	-14.27514
					2	16.0	-14.65222
					3	72.0	-15.47045

Calculation No. PM-1055 Revision 0
Attachment J
Page 926 of 1411

8	1.260E-06	1.200E-08	-0.5550	-13.2000	4	624.0	-16.64523
					1	8.0	-14.35401
					2	16.0	-14.73868
					3	72.0	-15.57339
					4	624.0	-16.77183
9	1.439E-06	1.962E-08	-0.5122	-13.0968	1	8.0	-14.16193
					2	16.0	-14.51697
					3	72.0	-15.28738
					4	624.0	-16.39350
10	1.200E-06	1.143E-08	-0.5550	-13.2484	1	8.0	-14.40245
					2	16.0	-14.78714
					3	72.0	-15.62188
					4	624.0	-16.82036
11	1.113E-06	9.413E-09	-0.5692	-13.3139	1	8.0	-14.49751
					2	16.0	-14.89205
					3	72.0	-15.74817
					4	624.0	-16.97735
12	9.771E-07	7.704E-09	-0.5776	-13.4384	1	8.0	-14.63935
					2	16.0	-15.03967
					3	72.0	-15.90836
					4	624.0	-17.15557
13	1.040E-06	1.160E-08	-0.5362	-13.4049	1	8.0	-14.51986
					2	16.0	-14.89151
					3	72.0	-15.69795
					4	624.0	-16.85579
14	1.029E-06	1.340E-08	-0.5177	-13.4284	1	8.0	-14.50492
					2	16.0	-14.86375
					3	72.0	-15.64240
					4	624.0	-16.76035
15	1.198E-06	1.831E-08	-0.4986	-13.2892	1	8.0	-14.32610
					2	16.0	-14.67173
					3	72.0	-15.42172
					4	624.0	-16.49854
16	1.474E-06	2.261E-08	-0.4982	-13.0823	1	8.0	-14.11830
					2	16.0	-14.46362
					3	72.0	-15.21294
					4	624.0	-16.28878
17	1.965E-06	2.261E-08	-0.5325	-12.7711	1	8.0	-13.87832
					2	16.0	-14.24741
					3	72.0	-15.04830
					4	624.0	-16.19818
18	1.965E-06	2.261E-08	-0.5325	-12.7711	1	8.0	-13.87832

2	16.0	-14.24741
3	72.0	-15.04830
4	624.0	-16.19818

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 01/28/03

Page 928 of 1411

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

RELATIVE CONCENTRATION (X/Q) VALUES (SEC/CUBIC METER)

		VERSUS AVERAGING TIME						HOURS PER YEAR MAX 0-2 HR X/Q IS EXCEEDED			
DOWNWIND SECTOR	DISTANCE (METERS)	0-2 HOURS	0-8 HOURS	8-24 HOURS	1-4 DAYS	4-30 DAYS	ANNUAL AVERAGE	IN SECTOR		DOWNWIND SECTOR	
S	6000.	1.35E-06	6.45E-07	4.46E-07	2.00E-07	6.35E-08	1.56E-08	29.1		S	
SSW	6000.	1.18E-06	5.39E-07	3.65E-07	1.56E-07	4.62E-08	1.04E-08	690.9		SSW	
SW	6000.	1.41E-06	6.37E-07	4.28E-07	1.80E-07	5.20E-08	1.14E-08	35.5		SW	
WSW	6000.	1.57E-06	7.19E-07	4.87E-07	2.08E-07	6.17E-08	1.39E-08	42.3		WSW	
W	6000.	1.60E-06	7.49E-07	5.13E-07	2.25E-07	6.91E-08	1.63E-08	43.7		W	
WNW	6000.	1.40E-06	6.46E-07	4.40E-07	1.91E-07	5.75E-08	1.32E-08	32.5		WNW	
NW	6000.	1.34E-06	6.32E-07	4.33E-07	1.91E-07	5.90E-08	1.40E-08	28.4		NW	
NNW	6000.	1.26E-06	5.84E-07	3.97E-07	1.72E-07	5.20E-08	1.20E-08	24.1		NNW	
N	6000.	1.44E-06	7.07E-07	4.96E-07	2.29E-07	7.59E-08	1.96E-08	33.4		N	
NNE	6000.	1.20E-06	5.56E-07	3.78E-07	1.64E-07	4.95E-08	1.14E-08	21.2		NNE	
NE	6000.	1.11E-06	5.06E-07	3.41E-07	1.45E-07	4.23E-08	9.41E-09	18.2		NE	
ENE	6000.	9.77E-07	4.39E-07	2.94E-07	1.23E-07	3.54E-08	7.70E-09	13.7		ENE	
E	6000.	1.04E-06	4.94E-07	3.41E-07	1.52E-07	4.78E-08	1.16E-08	15.6		E	
ESE	6000.	1.03E-06	5.02E-07	3.51E-07	1.61E-07	5.26E-08	1.34E-08	15.6		ESE	
SE	6000.	1.20E-06	6.00E-07	4.25E-07	2.01E-07	6.84E-08	1.83E-08	21.5		SE	
SSE	6000.	1.47E-06	7.39E-07	5.23E-07	2.47E-07	8.43E-08	2.26E-08	35.6		SSE	
MAX X/Q		1.60E-06							TOTAL HOURS AROUND SITE: *****		
SRP 2.3.4	6000.	1.96E-06	9.39E-07	6.49E-07	2.91E-07	9.23E-08	2.26E-08				
SITE LIMIT		1.96E-06	9.39E-07	6.49E-07	2.91E-07	9.23E-08	2.26E-08				

THE FIVE-PERCENT-FOR-THE-ENTIRE-SITE X/Q IS LIMITING.

X/Q VALUES (SEC/CUBIC METER) FOR FUMIGATION AT THE BOUNDARY:

DOWNWIND DISTANCE FUMIGATION

SECTOR	(METERS)	X/Q
S	6000.	8.14E-06
SSW	6000.	8.14E-06
SW	6000.	8.14E-06
WSW	6000.	8.14E-06
W	6000.	8.14E-06
WNW	6000.	8.14E-06
NW	6000.	8.14E-06
NNW	6000.	8.14E-06
N	6000.	8.14E-06
NNE	6000.	8.14E-06
NE	6000.	8.14E-06
ENE	6000.	8.14E-06
E	6000.	8.14E-06

Calculation No. PM-1055 Revision 0**Attachment J****Page 929 of 1411**

ESE	6000.	8.14E-06
SE	6000.	8.14E-06
SSE	6000.	8.14E-06

****NOTE**:** VALUES ON THIS PAGE ARE APPROXIMATIONS ONLY.
CHECK THE REASONABLENESS OF THE ENVELOPES
COMPUTED FOR THE 0-2 HOUR VALUES. FOR ANY
FAULTY ENVELOPES, ADJUST THE ABOVE VALUES.

PAVAN Input**Off Gas Stack to EAB and LPZ (Tower 2 320' wind and 316'-33' Delta T Stability Class)**

1 1111

Peach Bottom

Stack Release

97.5 meters

10.1-96.3 meters

Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

7	2																	
2584.	54.3152.4	97.5																
0	0	0	2	6	5	0												
0.	0.	0.	0.	3.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
6.	9.	23.	39.	87.	44.	4.	2.	0.	2.	2.	0.	1.	0.	0.	0.	1.		
0.	9.	20.	29.	46.	44.	20.	2.	12.	7.	5.	7.	8.	9.	2.	8.			
2.	4.	9.	18.	7.	3.	13.	0.	7.	3.	2.	3.	21.	9.	3.	15.			
2.	2.	0.	1.	0.	1.	0.	0.	0.	0.	0.	2.	14.	2.	0.	1.			
0.	0.	0.	0.	0.	1.	0.	0.	0.	0.	0.	2.	2.	5.	1.	1.			
0.	2.	2.	9.	5.	0.	2.	0.	0.	0.	0.	0.	0.	0.	0.	0.			
13.	23.	18.	25.	56.	29.	10.	3.	3.	4.	3.	1.	4.	3.	4.	3.			
4.	15.	13.	15.	12.	25.	27.	8.	25.	14.	13.	8.	21.	9.	2.	22.			
10.	3.	2.	1.	1.	2.	8.	8.	31.	9.	6.	19.	27.	20.	9.	33.			
1.	2.	1.	0.	0.	1.	1.	1.	5.	2.	1.	2.	12.	14.	4.	5.			
0.	0.	0.	0.	0.	0.	0.	0.	1.	0.	0.	1.	6.	7.	0.	0.			
0.	5.	12.	15.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.			
31.	22.	28.	37.	50.	65.	14.	12.	19.	5.	7.	3.	5.	5.	3.	22.			
42.	19.	9.	17.	14.	26.	62.	22.	72.	37.	30.	26.	42.	26.	26.	100.			
18.	8.	4.	3.	3.	4.	11.	10.	67.	24.	21.	31.	56.	59.	35.	93.			
4.	1.	0.	0.	1.	2.	0.	1.	9.	0.	4.	4.	29.	30.	28.	17.			
1.	4.	0.	0.	0.	0.	0.	0.	1.	0.	1.	1.	13.	27.	6.	0.			
59.	58.	108.	119.	115.	86.	45.	35.	41.	23.	32.	15.	26.	38.	36.	50.			
330.	211.	238.	336.	435.	304.	339.	243.	300.	191.	155.	128.	141.	97.	193.	385.			
521.	349.	251.	278.	331.	308.	478.	466.	708.	425.	287.	211.	301.	355.	542.	928.			
396.	154.	85.	67.	132.	140.	161.	118.	482.	166.	126.	190.	395.	674.	1039.	918.			
73.	27.	13.	11.	32.	26.	14.	11.	99.	16.	16.	22.	225.	448.	543.	242.			
15.	7.	12.	2.	8.	2.	7.	7.	29.	9.	3.	6.	90.	151.	184.	63.			
60.	44.	36.	61.	60.	60.	61.	59.	70.	56.	59.	54.	54.	36.	39.	34.			
235.	164.	150.	219.	283.	200.	345.	311.	435.	320.	281.	187.	173.	138.	170.	203.			
367.	201.	156.	101.	161.	257.	349.	443.	891.	577.	354.	297.	395.	354.	519.	514.			
156.	38.	26.	11.	58.	63.	98.	165.	516.	228.	216.	271.	536.	583.	651.	468.			
23.	8.	8.	4.	12.	21.	16.	11.	64.	19.	18.	30.	78.	111.	89.	43.			
7.	1.	1.	1.	20.	4.	12.	2.	6.	4.	2.	1.	9.	12.	6.	10.			
26.	19.	22.	26.	31.	23.	28.	32.	23.	32.	32.	33.	30.	28.	26.	22.			
99.	38.	34.	29.	34.	52.	81.	90.	134.	141.	156.	117.	85.	66.	94.	97.			
81.	25.	13.	8.	13.	24.	48.	79.	130.	111.	157.	177.	198.	140.	178.	126.			
4.	1.	1.	0.	0.	2.	7.	8.	44.	23.	39.	109.	168.	138.	90.	32.			
1.	0.	0.	0.	0.	0.	0.	0.	0.	3.	0.	18.	24.	18.	0.	5.			
0.	0.	0.	0.	4.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.			
11.	14.	11.	10.	13.	5.	4.	9.	17.	9.	6.	18.	13.	14.	13.	19.			
47.	19.	22.	19.	13.	6.	28.	10.	34.	31.	36.	34.	40.	35.	70.	59.			
16.	5.	4.	2.	2.	2.	8.	6.	10.	21.	51.	70.	69.	44.	92.	85.			

1.	0.	0.	0.	0.	0.	1.	1.	2.	1.	8.	26.	39.	39.	9.	5.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	1.	2.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	0.	0.	1.

101. 0.50 3.50 7.50 12.5 18.5 24.0 55.0

0823.0823.0823.0823.0823.0823.0823.0823.0823.0823.0823.0823.0823.0823.0823.0823.0823.

7300.7300.7300.7300.7300.7300.7300.7300.7300.7300.7300.7300.7300.7300.7300.7300.7300.

1.	1.	1.	1.	1.	1.	1.	1.	1.	1.	1.	1.	1.	1.	1.	1.
1.	1.	1.	1.	1.	1.	1.	1.	1.	1.	1.	1.	1.	1.	1.	1.

0823.0823.0823.0823.0823.0823.0823.0823.0823.0823.0823.0823.0823.0823.0823.0823.0823.

0031.0018.0012.0024.0031.0031.0024.0000.0000.0000.0000.0000.0000.0000.0000.0000.0031.

7300.7300.7300.7300.7300.7300.7300.7300.7300.7300.7300.7300.7300.7300.7300.7300.7300.

0055.0061.0128.0104.0073.0098.0104.0085.0110.0085.0085.0067.0048.0067.0043.0043.

PAVAN Output**Off Gas Stack to EAB and LPZ (Tower 2 320' wind and 316'-33' Delta T Stability Class)**

Copyright (c) 1990 Ergo Computing, Inc. for Lahey

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

RUN DATE: 12/29/02

PRINTOUT OF INPUT CARDS

```
1      00010 01111 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 2      Peach Bottom
Stack Release
3      97.5 meters          10.1-96.3 meters
4
5      Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T          6          7 42872          2
7      0.500 2584.000    54.300 152.400    97.500
8      0.000 0.000 0.000 2.000 6.000 5.000 0.000
9      0.000 0.000 0.000 0.000 3.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
9      6.000 9.000 23.000 39.000 87.000 44.000 4.000 2.000 0.000 2.000 2.000 0.000 1.000 0.000 0.000 1.000
9      0.000 9.000 20.000 29.000 46.000 44.000 20.000 2.000 12.000 7.000 5.000 7.000 8.000 9.000 2.000 8.000
9      2.000 4.000 9.000 18.000 7.000 3.000 13.000 0.000 7.000 3.000 2.000 3.000 21.000 9.000 3.000 15.000
9      2.000 2.000 0.000 1.000 0.000 1.000 0.000 0.000 0.000 0.000 0.000 0.000 2.000 14.000 2.000 0.000 1.000
9      0.000 0.000 0.000 0.000 0.000 1.000 0.000 0.000 0.000 0.000 0.000 0.000 2.000 2.000 5.000 1.000 1.000
9      0.000 2.000 2.000 9.000 5.000 0.000 2.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
9      13.000 23.000 18.000 25.000 56.000 29.000 10.000 3.000 3.000 4.000 3.000 1.000 4.000 3.000 4.000 3.000
9      4.000 15.000 13.000 15.000 12.000 25.000 27.000 8.000 25.000 14.000 13.000 8.000 21.000 9.000 2.000 22.000
9      10.000 3.000 2.000 1.000 1.000 2.000 8.000 8.000 31.000 9.000 6.000 19.000 27.000 20.000 9.000 33.000
9      1.000 2.000 1.000 0.000 0.000 1.000 1.000 1.000 5.000 2.000 1.000 2.000 12.000 14.000 4.000 5.000
9      0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 1.000 0.000 0.000 0.000 1.000 6.000 7.000 0.000 0.000
9      0.000 5.000 12.000 15.000 1.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
9      31.000 22.000 28.000 37.000 50.000 65.000 14.000 12.000 19.000 5.000 7.000 3.000 5.000 5.000 3.000 22.000
9      42.000 19.000 9.000 17.000 14.000 26.000 62.000 22.000 72.000 37.000 30.000 26.000 42.000 26.000 26.000 100.000
9      18.000 8.000 4.000 3.000 3.000 4.000 11.000 10.000 67.000 24.000 21.000 31.000 56.000 59.000 35.000 93.000
9      4.000 1.000 0.000 0.000 1.000 2.000 0.000 1.000 9.000 0.000 4.000 4.000 29.000 30.000 28.000 17.000
9      1.000 4.000 0.000 0.000 0.000 0.000 0.000 0.000 1.000 0.000 1.000 1.000 13.000 27.000 6.000 0.000
9      59.000 58.000 108.000 119.000 115.000 86.000 45.000 35.000 41.000 23.000 32.000 15.000 26.000 38.000 36.000 50.000
9      330.000 211.000 238.000 336.000 435.000 304.000 339.000 243.000 300.000 191.000 155.000 128.000 141.000 97.000 193.000 385.000
9      521.000 349.000 251.000 278.000 331.000 308.000 478.000 466.000 708.000 425.000 287.000 211.000 301.000 355.000 542.000 928.000
9      396.000 154.000 85.000 67.000 132.000 140.000 161.000 118.000 482.000 166.000 126.000 190.000 395.000 674.000 *****918.000
9      73.000 27.000 13.000 11.000 32.000 26.000 14.000 11.000 99.000 16.000 16.000 22.000 225.000 448.000 543.000 242.000
9      15.000 7.000 12.000 2.000 8.000 2.000 7.000 7.000 29.000 9.000 3.000 6.000 90.000 151.000 184.000 63.000
9      60.000 44.000 36.000 61.000 60.000 60.000 61.000 59.000 70.000 56.000 59.000 54.000 54.000 36.000 39.000 34.000
9      235.000 164.000 150.000 219.000 283.000 200.000 345.000 311.000 435.000 320.000 281.000 187.000 173.000 138.000 170.000 203.000
9      367.000 201.000 156.000 101.000 161.000 257.000 349.000 443.000 891.000 577.000 354.000 297.000 395.000 354.000 519.000 514.000
9      156.000 38.000 26.000 11.000 58.000 63.000 98.000 165.000 516.000 228.000 216.000 271.000 536.000 583.000 651.000 468.000
9      23.000 8.000 8.000 4.000 12.000 21.000 16.000 11.000 64.000 19.000 18.000 30.000 78.000 111.000 89.000 43.000
9      7.000 1.000 1.000 1.000 20.000 4.000 12.000 2.000 6.000 4.000 2.000 1.000 9.000 12.000 6.000 10.000
9      26.000 19.000 22.000 26.000 31.000 23.000 28.000 32.000 23.000 32.000 32.000 33.000 30.000 28.000 26.000 22.000
9      99.000 38.000 34.000 29.000 34.000 52.000 81.000 90.000 134.000 141.000 156.000 117.000 85.000 66.000 94.000 97.000
9      81.000 25.000 13.000 8.000 13.000 24.000 48.000 79.000 130.000 111.000 157.000 177.000 198.000 140.000 178.000 126.000
```

9	4.000	1.000	1.000	0.000	0.000	2.000	7.000	8.000	44.000	23.000	39.000	109.000	168.000	138.000	90.000	32.000			
9	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	3.000	0.000	18.000	24.000	18.000	0.000	5.000			
9	0.000	0.000	0.000	0.000	4.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000			
9	11.000	14.000	11.000	10.000	13.000	5.000	4.000	9.000	17.000	9.000	6.000	18.000	13.000	14.000	13.000	19.000			
9	47.000	19.000	22.000	19.000	13.000	6.000	28.000	10.000	34.000	31.000	36.000	34.000	40.000	35.000	70.000	59.000			
9	16.000	5.000	4.000	2.000	2.000	2.000	8.000	6.000	10.000	21.000	51.000	70.000	69.000	44.000	92.000	85.000			
9	1.000	0.000	0.000	0.000	0.000	0.000	1.000	1.000	2.000	1.000	8.000	26.000	39.000	39.000	9.000	5.000			
9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	1.000	2.000	0.000	0.000			
9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	1.000	10	101.
0.500	3.500	7.500	12.500	18.500	24.000	55.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	11	823.	823.	823.	823.
823.	823.	823.	823.	823.	823.	823.	823.	823.	823.	823.	823.	11	7300.	7300.	7300.	7300.	7300.	7300.	7300.
7300.	7300.	7300.	7300.	7300.	7300.	7300.	7300.	7300.	7300.	12	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
12	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	13	823.
823.	823.	823.	823.	823.	823.	823.	823.	823.	823.	823.	823.	823.	823.	823.					
14	31.	18.	12.	24.	31.	31.	24.	0.	0.	0.	0.	0.	0.	0.	0.	0.	31.	13	7300.
7300.	7300.	7300.	7300.	7300.	7300.	7300.	7300.	7300.	7300.	7300.	7300.	7300.	7300.	7300.	7300.				
14	55.	61.	128.	104.	73.	98.	104.	85.	110.	85.	85.	67.	48.	67.	43.	43.			

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 934 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1 96.3 meters

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION
ATMOSPHERIC STABILITY CLASS A

WIND SPEED (M/S)

TOWER RELEASE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
0.22 0.25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.56 1.75	0.000	0.000	0.000	0.000	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.007
3.35 3.75	0.014	0.021	0.054	0.091	0.203	0.103	0.009	0.005	0.000	0.005	0.005	0.000	0.002	0.000	0.000	0.002	0.513
5.59 6.25	0.000	0.021	0.047	0.068	0.107	0.103	0.047	0.005	0.028	0.016	0.012	0.016	0.019	0.021	0.005	0.019	0.532
8.27 9.25	0.005	0.009	0.021	0.042	0.016	0.007	0.030	0.000	0.016	0.007	0.005	0.007	0.049	0.021	0.007	0.035	0.278
10.73 12.00	0.005	0.005	0.000	0.002	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.005	0.033	0.005	0.000	0.002	0.058
24.59 27.49	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.005	0.005	0.012	0.002	0.002	0.028
TOTAL	0.02	0.06	0.12	0.20	0.33	0.22	0.09	0.01	0.04	0.03	0.02	0.03	0.11	0.06	0.01	0.06	1.42

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION
ATMOSPHERIC STABILITY CLASS B

WIND SPEED (M/S)

TOWER RELEASE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
0.22 0.25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.56 1.75	0.000	0.005	0.005	0.021	0.012	0.000	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.047
3.35 3.75	0.030	0.054	0.042	0.058	0.131	0.068	0.023	0.007	0.007	0.009	0.007	0.002	0.009	0.007	0.009	0.007	0.471
5.59 6.25	0.009	0.035	0.030	0.035	0.028	0.058	0.063	0.019	0.058	0.033	0.030	0.019	0.049	0.021	0.005	0.051	0.543
8.27 9.25	0.023	0.007	0.005	0.002	0.002	0.005	0.019	0.019	0.072	0.021	0.014	0.044	0.063	0.047	0.021	0.077	0.441
10.73 12.00	0.002	0.005	0.002	0.000	0.000	0.002	0.002	0.002	0.012	0.005	0.002	0.005	0.028	0.033	0.009	0.012	0.121
24.59 27.49	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.002	0.014	0.016	0.000	0.000	0.035
TOTAL	0.07	0.10	0.08	0.12	0.17	0.13	0.11	0.05	0.15	0.07	0.05	0.07	0.16	0.12	0.04	0.15	1.66

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION
ATMOSPHERIC STABILITY CLASS C

WIND SPEED (M/S)

TOWER RELEASE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
0.22 0.25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.56 1.75	0.000	0.012	0.028	0.035	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.077
3.35 3.75	0.072	0.051	0.065	0.086	0.117	0.152	0.033	0.028	0.044	0.012	0.016	0.007	0.012	0.012	0.007	0.051	0.765
5.59 6.25	0.098	0.044	0.021	0.040	0.033	0.061	0.145	0.051	0.168	0.086	0.070	0.061	0.098	0.061	0.061	0.233	1.330
8.27 9.25	0.042	0.019	0.009	0.007	0.007	0.009	0.026	0.023	0.156	0.056	0.049	0.072	0.131	0.138	0.082	0.217	1.043
10.73 12.00	0.009	0.002	0.000	0.000	0.002	0.005	0.000	0.002	0.021	0.000	0.009	0.009	0.068	0.070	0.065	0.040	0.303
24.59 27.49	0.002	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.002	0.002	0.030	0.063	0.014	0.000	0.126
TOTAL	0.22	0.14	0.12	0.17	0.16	0.23	0.20	0.10	0.39	0.15	0.15	0.15	0.34	0.34	0.23	0.54	3.64

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION
ATMOSPHERIC STABILITY CLASS D

WIND SPEED (M/S)

TOWER RELEASE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
0.22 0.25	0.000	0.000	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.005
1.56 1.75	0.138	0.135	0.252	0.278	0.268	0.201	0.105	0.082	0.096	0.054	0.075	0.035	0.061	0.089	0.084	0.117	2.067

Calculation No. PM-1055 Revision 0
Attachment J
Page 935 of 1411

3.35	3.75	0.770	0.492	0.555	0.784	1.015	0.709	0.791	0.567	0.700	0.446	0.362	0.299	0.329	0.226	0.450	0.898	9.391
5.59	6.25	1.215	0.814	0.585	0.648	0.772	0.718	1.115	1.087	1.651	0.991	0.669	0.492	0.702	0.828	1.264	2.165	15.719
8.27	9.25	0.924	0.359	0.198	0.156	0.308	0.327	0.376	0.275	1.124	0.387	0.294	0.443	0.921	1.572	2.423	2.141	12.229
10.73	12.00	0.170	0.063	0.030	0.026	0.075	0.061	0.033	0.026	0.231	0.037	0.037	0.051	0.525	1.045	1.267	0.564	4.241
24.59	27.49	0.035	0.016	0.028	0.005	0.019	0.005	0.016	0.016	0.068	0.021	0.007	0.014	0.210	0.352	0.429	0.147	1.388
TOTAL		3.25	1.88	1.65	1.90	2.46	2.02	2.44	2.05	3.87	1.94	1.44	1.33	2.75	4.11	5.92	6.03	45.04

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION
WIND SPEED (M/S)
ATMOSPHERIC STABILITY CLASS E

TOWER RELEASE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
0.22 0.28	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.014
1.56 1.96	0.140	0.103	0.084	0.142	0.140	0.140	0.142	0.138	0.163	0.131	0.138	0.126	0.126	0.084	0.091	0.079	1.966
3.35 4.19	0.548	0.383	0.350	0.511	0.660	0.467	0.805	0.725	1.015	0.746	0.655	0.436	0.404	0.322	0.397	0.474	8.896
5.59 6.99	0.856	0.469	0.364	0.236	0.376	0.599	0.814	1.033	2.078	1.346	0.826	0.693	0.921	0.826	1.211	1.199	13.846
8.27 10.34	0.364	0.089	0.061	0.026	0.135	0.147	0.229	0.385	1.204	0.532	0.504	0.632	1.250	1.360	1.518	1.092	9.526
10.73 13.41	0.054	0.019	0.019	0.009	0.028	0.049	0.037	0.026	0.149	0.044	0.042	0.070	0.182	0.259	0.208	0.100	1.295
24.59 30.74	0.016	0.002	0.002	0.002	0.047	0.009	0.028	0.005	0.014	0.009	0.005	0.002	0.021	0.028	0.014	0.023	0.229
TOTAL	1.98	1.06	0.88	0.93	1.39	1.41	2.06	2.31	4.62	2.81	2.17	1.96	2.90	2.88	3.44	2.97	35.77

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION
WIND SPEED (M/S)
ATMOSPHERIC STABILITY CLASS F

TOWER RELEASE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
0.22 0.28	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.012
1.56 1.96	0.061	0.044	0.051	0.061	0.072	0.054	0.065	0.075	0.054	0.075	0.075	0.077	0.070	0.065	0.061	0.051	1.010
3.35 4.19	0.231	0.089	0.079	0.068	0.079	0.121	0.189	0.210	0.313	0.329	0.364	0.273	0.198	0.154	0.219	0.226	3.142
5.59 6.99	0.189	0.058	0.030	0.019	0.030	0.056	0.112	0.184	0.303	0.259	0.366	0.413	0.462	0.327	0.415	0.294	3.517
8.27 10.34	0.009	0.002	0.002	0.000	0.000	0.005	0.016	0.019	0.103	0.054	0.091	0.254	0.392	0.322	0.210	0.075	1.553
10.73 13.41	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.007	0.000	0.042	0.056	0.042	0.000	0.012	0.161
24.59 30.74	0.000	0.000	0.000	0.000	0.009	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.012
TOTAL	0.49	0.19	0.16	0.15	0.19	0.24	0.38	0.49	0.77	0.72	0.90	1.06	1.18	0.91	0.91	0.66	9.41

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION
WIND SPEED (M/S)
ATMOSPHERIC STABILITY CLASS G

TOWER RELEASE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
0.22 0.28	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.56 1.96	0.026	0.033	0.026	0.023	0.030	0.012	0.009	0.021	0.040	0.021	0.014	0.042	0.030	0.033	0.030	0.044	0.434
3.35 4.19	0.110	0.044	0.051	0.044	0.030	0.014	0.065	0.023	0.079	0.072	0.084	0.079	0.093	0.082	0.163	0.138	1.173
5.59 6.99	0.037	0.012	0.009	0.005	0.005	0.005	0.019	0.014	0.023	0.049	0.119	0.163	0.161	0.103	0.215	0.198	1.136
8.27 10.34	0.002	0.000	0.000	0.000	0.000	0.000	0.002	0.002	0.005	0.002	0.019	0.061	0.091	0.091	0.021	0.012	0.308
10.73 13.41	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.002	0.005	0.000	0.000	0.009
24.59 30.74	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.002	0.005
TOTAL	0.17	0.09	0.09	0.07	0.07	0.03	0.10	0.06	0.15	0.14	0.24	0.35	0.38	0.31	0.43	0.39	3.06

WIND MEASURED AT 97.5 METERS.

WIND SPEED CORRECTED TO THE RELEASE HEIGHT OF 152.4 METERS.

OVERALL WIND DIRECTION FREQUENCY

WIND DIRECTION:	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
FREQUENCY:	6.2	3.5	3.1	3.5	4.8	4.3	5.4	5.1	10.0	5.9	5.0	5.0	7.8	8.7	11.0	10.8

OVERALL WIND SPEED FREQUENCY AS MEASURED ON THE TOWER:

MAX.WIND SPEED (M/S): 0.224 1.565 3.353 5.588 8.270 10.729 24.587
 WIND SPEED FREQUENCY: 0.03 5.61 24.35 36.62 25.38 6.19 1.82

BUILDING AND RELEASE CHARACTERISTICS:

RELEASE HEIGHT: 152.40 METERS
 MIXING VOLUME COEFFICIENT: 0.50
 BUILDING CROSS-SECTIONAL AREA: 2584.00 SQUARE METERS

BOUNDARY DISTANCES (METERS) FROM THE SOURCE FOR EACH DOWNWIND SECTOR:

DOWNWIND SECTOR	S	SSW	SW	WSW	W	WNW	NW	NNW	N	NNE	NE	ENE	E	ESE	SE	SSE
BOUNDARY 1	823.	823.	823.	823.	823.	823.	823.	823.	823.	823.	823.	823.	823.	823.	823.	823.
BOUNDARY 2	7300.	7300.	7300.	7300.	7300.	7300.	7300.	7300.	7300.	7300.	7300.	7300.	7300.	7300.	7300.	7300.

DISTANCES AND TERRAIN HEIGHTS (IN METERS) AS A FUNCTION OF THE DOWNWIND SECTOR:

SECTOR	S	SSW	SW	WSW	W	WNW	NW	NNW	N	NNE	NE	ENE	E	ESE	SE	SSE
DISTANCE	823.	823.	823.	823.	823.	823.	823.	823.	823.	823.	823.	823.	823.	823.	823.	823.
ELEVATION	31.	18.	12.	24.	31.	31.	24.	0.	0.	0.	0.	0.	0.	0.	0.	31.
DISTANCE	7300.	7300.	7300.	7300.	7300.	7300.	7300.	7300.	7300.	7300.	7300.	7300.	7300.	7300.	7300.	7300.
ELEVATION	55.	61.	128.	104.	73.	98.	104.	85.	110.	85.	85.	67.	48.	67.	43.	43.

THE CONVERSION FACTOR APPLIED TO THE WIND SPEED CLASSES IS 0.447

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 937 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1 96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

WINDSPEEDS ADJUSTED TO 152.4 METERS.

PERCENT OF THE TIME A GIVEN WINDSPEED IS LOWER:

WINDSPEED (METER/SEC)	CUMULATIVE FREQUENCY (PERCENT)
--------------------------	-----------------------------------

0.25	0.00
0.28	0.03
1.75	2.23
1.96	5.64
3.75	16.78
4.19	29.99
6.25	48.11
6.99	66.61
9.25	80.60
10.34	91.99
12.00	96.71
13.41	98.18
27.49	99.76
30.74	100.00

WINDSPEED (INTERPOLATED) (METER/SEC)	CUMULATIVE FREQUENCY (PERCENT)
--	-----------------------------------

0.27	0.03
1.88	5.64
3.99	29.99
6.62	66.61
9.74	91.99
12.33	98.18
27.93	100.00

LOG-NORMAL INTERPOLATION PERCENTILES

WINDSPEED (METER/SEC)	CUMULATIVE FREQUENCY (PERCENT)
--------------------------	-----------------------------------

0.87	1.00
1.38	3.00
1.76	5.00
2.33	10.00
2.77	15.00
3.18	20.00

3.58	25.00
3.99	30.00
4.30	35.00
4.61	40.00
4.93	45.00
5.27	50.00
5.64	55.00
6.03	60.00
6.47	65.00
6.88	70.00
7.30	75.00
7.79	80.00
8.57	85.00
9.27	90.00

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 939 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE S SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS			METERS		METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 152.4 METERS												CA=1292.SQ.METERS		
A	3.7	0.23	823.	31.			121.		157.1	310.1	0.0	0.000E+00	0.000E+00	1.614E-06
A	9.2	0.08	823.	31.			121.		157.1	310.1	0.0	0.000E+00	0.000E+00	6.545E-07
A	12.0	0.08	823.	31.			121.		157.1	310.1	0.0	0.000E+00	0.000E+00	5.045E-07
B	3.7	0.49	823.	31.			121.		118.1	88.8	0.0	0.000E+00	0.000E+00	3.178E-06
B	6.2	0.15	823.	31.			121.		118.1	88.8	0.0	0.000E+00	0.000E+00	1.907E-06
B	9.2	0.38	823.	31.			121.		118.1	88.8	0.0	0.000E+00	0.000E+00	1.289E-06
B	12.0	0.04	823.	31.			121.		118.1	88.8	0.0	0.000E+00	0.000E+00	9.932E-07
C	3.7	1.16	2000.	35.			117.		200.0	114.9	0.0	0.000E+00	0.000E+00	2.199E-06
C	6.2	1.58	2000.	35.			117.		200.0	114.9	0.0	0.000E+00	0.000E+00	1.319E-06
C	9.2	0.68	2000.	35.			117.		200.0	114.9	0.0	0.000E+00	0.000E+00	8.915E-07
C	12.0	0.15	2000.	35.			117.		200.0	114.9	0.0	0.000E+00	0.000E+00	6.872E-07
C	27.5	0.04	2000.	35.			117.		200.0	114.9	0.0	0.000E+00	0.000E+00	2.999E-07
D	0.2	0.01	4000.	43.			110.		263.4	78.0	0.0	0.000E+00	0.000E+00	2.309E-05
D	1.7	2.22	4000.	43.			110.		263.4	78.0	0.0	0.000E+00	0.000E+00	3.298E-06
D	3.7	12.39	4000.	43.			110.		263.4	78.0	0.0	0.000E+00	0.000E+00	1.539E-06
D	6.2	19.57	4000.	43.			110.		263.4	78.0	0.0	0.000E+00	0.000E+00	9.234E-07
D	9.2	14.87	4000.	43.			110.		263.4	78.0	0.0	0.000E+00	0.000E+00	6.239E-07
D	12.0	2.74	4000.	43.			110.		263.4	78.0	0.0	0.000E+00	0.000E+00	4.810E-07
D	27.5	0.56	4000.	43.			110.		263.4	78.0	0.0	0.000E+00	0.000E+00	2.099E-07
E	0.3	0.02	7000.	54.			99.		310.5	66.2	0.0	0.000E+00	0.000E+00	1.831E-05
E	2.0	2.25	7000.	54.			99.		310.5	66.2	0.0	0.000E+00	0.000E+00	2.615E-06
E	4.2	8.83	7000.	54.			99.		310.5	66.2	0.0	0.000E+00	0.000E+00	1.220E-06
E	7.0	13.78	7000.	54.			99.		310.5	66.2	0.0	0.000E+00	0.000E+00	7.323E-07
E	10.3	5.86	7000.	54.			99.		310.5	66.2	0.0	0.000E+00	0.000E+00	4.948E-07
E	13.4	0.86	7000.	54.			99.		310.5	66.2	0.0	0.000E+00	0.000E+00	3.814E-07
E	30.7	0.26	7000.	54.			99.		310.5	66.2	0.0	0.000E+00	0.000E+00	1.664E-07
F	0.3	0.01	10000.	55.			97.		295.8	46.1	0.0	0.000E+00	0.000E+00	8.984E-06
F	2.0	0.98	10000.	55.			97.		295.8	46.1	0.0	0.000E+00	0.000E+00	1.283E-06
F	4.2	3.72	10000.	55.			97.		295.8	46.1	0.0	0.000E+00	0.000E+00	5.990E-07
F	7.0	3.04	10000.	55.			97.		295.8	46.1	0.0	0.000E+00	0.000E+00	3.594E-07
F	10.3	0.15	10000.	55.			97.		295.8	46.1	0.0	0.000E+00	0.000E+00	2.428E-07
F	13.4	0.04	10000.	55.			97.		295.8	46.1	0.0	0.000E+00	0.000E+00	1.872E-07
G	2.0	0.41	90000.	55.			97.		1000.0	46.0	0.0	0.000E+00	0.000E+00	3.762E-07

Calculation No. PM-1055 Revision 0**Attachment J****Page 940 of 1411**

G	4.2	1.77	90000.	55.	97.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.755E-07
G	7.0	0.60	90000.	55.	97.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.053E-07
G	10.3	0.04	90000.	55.	97.	1000.0	46.0	0.0	0.000E+00	0.000E+00	7.117E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 941 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1 96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

S SECTOR BOUNDARY DISTANCE = 823.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

2.309E-05	1.831E-05	8.984E-06	3.298E-06	3.178E-06	2.615E-06	2.199E-06	1.907E-06	1.614E-06	1.539E-06
0.005	0.021	0.032	2.248	2.736	4.989	6.154	6.304	6.529	18.922
0.00031	0.00131	0.00201	0.13963	0.16995	0.30990	0.38221	0.39154	0.40553	1.17527
1.319E-06	1.289E-06	1.283E-06	1.220E-06	9.932E-07	9.234E-07	8.915E-07	7.323E-07	6.872E-07	6.545E-07
20.499	20.875	21.851	30.676	30.714	50.279	50.955	64.737	64.887	64.962
1.27323	1.29656	1.35720	1.90535	1.90768	3.12293	3.16491	4.02095	4.03028	4.03494
6.239E-07	5.990E-07	5.045E-07	4.948E-07	4.810E-07	3.814E-07	3.762E-07	3.594E-07	2.999E-07	2.428E-07
79.834	83.551	83.627	89.485	92.226	93.090	93.503	96.545	96.583	96.733
4.95862	5.18954	5.19421	5.55808	5.72835	5.78200	5.80766	5.99659	5.99893	6.00826
2.099E-07	1.872E-07	1.755E-07	1.664E-07	1.053E-07	7.117E-08				
97.296	97.334	99.099	99.362	99.962	100.000				
6.04324	6.04558	6.15521	6.17153	6.20885	6.21119				

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 2.309E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 1.174
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 1.903

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 3.120
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(6)= 4.955
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(7)= 5.186

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
1	1	-10.67628	-14.01285	-0.73836
1	2	-10.90824	-16.27717	-1.27688
1	3	-13.38433	-16.12975	-1.21180
1	4	-13.61629	-16.36144	-1.32351
1	5	-13.89516	-17.30567	-1.83022
1	6	-14.28720	-17.33310	-1.84686
1	7	-14.32809	NUMXQ(K)= 7	
		5.268E-06	0.062	1.000
		3.463E-06	0.186	3.000
		2.809E-06	0.311	5.000
		2.077E-06	0.621	10.000
		1.721E-06	0.932	15.000
		1.500E-06	1.242	20.000
		1.349E-06	1.553	25.000
		1.234E-06	1.863	30.000
		1.135E-06	2.174	35.000
		1.054E-06	2.484	40.000
		9.850E-07	2.795	45.000
		9.265E-07	3.106	50.000
		8.580E-07	3.416	55.000
		7.981E-07	3.727	60.000
		7.459E-07	4.037	65.000
		7.000E-07	4.348	70.000
		6.592E-07	4.658	75.000
		6.228E-07	4.969	80.000
		2.288E-06	0.5	8.05

ANNUAL AVERAGE = 3.76E-09

K= 1 FIVEXQ(K)= 2.288E-06 FIVEPR(K)= 8.050

FUMIGATION X/Q AT THE BOUNDARY: 5.30E-05

EXPONENTIAL TERM AND FREQUENCIES

9.262E-01	5.952E-01	3.926E-01	3.724E-01	3.302E-01	1.076E-01	1.064E-01
0.376	3.981	5.032	57.387	89.248	97.183	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 943 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE SSW SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 152.4 METERS												CA=1292.SQ.METERS		
A	3.7	0.60	823.	18.	134.	157.1	310.1	0.0	0.000E+00	0.000E+00	1.587E-06			
A	6.2	0.60	823.	18.	134.	157.1	310.1	0.0	0.000E+00	0.000E+00	9.520E-07			
A	9.2	0.26	823.	18.	134.	157.1	310.1	0.0	0.000E+00	0.000E+00	6.433E-07			
A	12.0	0.13	823.	18.	134.	157.1	310.1	0.0	0.000E+00	0.000E+00	4.959E-07			
B	1.7	0.13	900.	19.	134.	128.1	98.0	0.0	0.000E+00	0.000E+00	5.702E-06			
B	3.7	1.52	900.	19.	134.	128.1	98.0	0.0	0.000E+00	0.000E+00	2.661E-06			
B	6.2	0.99	900.	19.	134.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.597E-06			
B	9.2	0.20	900.	19.	134.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.079E-06			
B	12.0	0.13	900.	19.	134.	128.1	98.0	0.0	0.000E+00	0.000E+00	8.316E-07			
C	1.7	0.33	2000.	26.	127.	200.0	114.9	0.0	0.000E+00	0.000E+00	4.315E-06			
C	3.7	1.46	2000.	26.	127.	200.0	114.9	0.0	0.000E+00	0.000E+00	2.014E-06			
C	6.2	1.26	2000.	26.	127.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.208E-06			
C	9.2	0.53	2000.	26.	127.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.163E-07			
C	12.0	0.07	2000.	26.	127.	200.0	114.9	0.0	0.000E+00	0.000E+00	6.292E-07			
C	27.5	0.26	2000.	26.	127.	200.0	114.9	0.0	0.000E+00	0.000E+00	2.746E-07			
D	0.2	0.01	5000.	46.	107.	322.2	89.1	0.0	0.000E+00	0.000E+00	2.167E-05			
D	1.7	3.84	5000.	46.	107.	322.2	89.1	0.0	0.000E+00	0.000E+00	3.095E-06			
D	3.7	13.96	5000.	46.	107.	322.2	89.1	0.0	0.000E+00	0.000E+00	1.444E-06			
D	6.2	23.09	5000.	46.	107.	322.2	89.1	0.0	0.000E+00	0.000E+00	8.667E-07			
D	9.2	10.19	5000.	46.	107.	322.2	89.1	0.0	0.000E+00	0.000E+00	5.856E-07			
D	12.0	1.79	5000.	46.	107.	322.2	89.1	0.0	0.000E+00	0.000E+00	4.514E-07			
D	27.5	0.46	5000.	46.	107.	322.2	89.1	0.0	0.000E+00	0.000E+00	1.970E-07			
E	0.3	0.02	7000.	59.	93.	310.5	66.2	0.0	0.000E+00	0.000E+00	2.048E-05			
E	2.0	2.91	7000.	59.	93.	310.5	66.2	0.0	0.000E+00	0.000E+00	2.926E-06			
E	4.2	10.85	7000.	59.	93.	310.5	66.2	0.0	0.000E+00	0.000E+00	1.365E-06			
E	7.0	13.30	7000.	59.	93.	310.5	66.2	0.0	0.000E+00	0.000E+00	8.192E-07			
E	10.3	2.51	7000.	59.	93.	310.5	66.2	0.0	0.000E+00	0.000E+00	5.535E-07			
E	13.4	0.53	7000.	59.	93.	310.5	66.2	0.0	0.000E+00	0.000E+00	4.267E-07			
E	30.7	0.07	7000.	59.	93.	310.5	66.2	0.0	0.000E+00	0.000E+00	1.862E-07			
F	0.3	0.01	10000.	61.	91.	295.8	46.1	0.0	0.000E+00	0.000E+00	1.172E-05			
F	2.0	1.26	10000.	61.	91.	295.8	46.1	0.0	0.000E+00	0.000E+00	1.675E-06			
F	4.2	2.51	10000.	61.	91.	295.8	46.1	0.0	0.000E+00	0.000E+00	7.816E-07			
F	7.0	1.65	10000.	61.	91.	295.8	46.1	0.0	0.000E+00	0.000E+00	4.690E-07			
F	10.3	0.07	10000.	61.	91.	295.8	46.1	0.0	0.000E+00	0.000E+00	3.169E-07			

G	2.0	0.93	90000.	61.	91.	1000.0	46.0	0.0	0.000E+00	0.000E+00	4.916E-07
G	4.2	1.26	90000.	61.	91.	1000.0	46.0	0.0	0.000E+00	0.000E+00	2.294E-07
G	7.0	0.33	90000.	61.	91.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.376E-07

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 945 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1 96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

SSW SECTOR BOUNDARY DISTANCE = 823.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

2.167E-05	2.048E-05	1.172E-05	5.702E-06	4.315E-06	3.095E-06	2.926E-06	2.661E-06	2.014E-06	1.675E-06
0.009	0.029	0.044	0.176	0.507	4.344	7.254	8.776	10.231	11.488
0.00031	0.00104	0.00155	0.00621	0.01788	0.15316	0.25579	0.30944	0.36076	0.40507
1.597E-06	1.587E-06	1.444E-06	1.365E-06	1.208E-06	1.079E-06	9.520E-07	8.667E-07	8.316E-07	8.192E-07
12.481	13.076	27.034	37.883	39.140	39.338	39.934	63.021	63.153	76.450
0.44006	0.46105	0.95322	1.33575	1.38007	1.38707	1.40806	2.22211	2.22678	2.69561
8.163E-07	7.816E-07	6.433E-07	6.292E-07	5.856E-07	5.535E-07	4.959E-07	4.916E-07	4.690E-07	4.514E-07
76.979	79.493	79.757	79.824	90.011	92.525	92.657	93.583	95.237	97.023
2.71427	2.80291	2.81224	2.81457	3.17378	3.26242	3.26708	3.29974	3.35805	3.42103
4.267E-07	3.169E-07	2.746E-07	2.294E-07	1.970E-07	1.862E-07	1.376E-07			
97.552	97.619	97.883	99.140	99.603	99.669	100.000			
3.43969	3.44202	3.45135	3.49567	3.51200	3.51433	3.52599			

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 2.167E-05 DISTANCE = 5000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 0.256
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 1.334

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 2.712
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(6)= 2.800

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
2	1	-10.73975	-11.69888	-0.21208
2	2	-10.79607	-16.48165	-1.33559
2	3	-12.74198	-16.39665	-1.30524
2	4	-13.50412	-17.41958	-1.76683
2	5	-14.01848	-20.00057	-3.10761
2	6	-14.06189	NUMXQ(K)= 6	
		6.414E-06	0.035	1.000
		4.217E-06	0.106	3.000
		3.425E-06	0.176	5.000
		2.550E-06	0.353	10.000
		2.130E-06	0.529	15.000
		1.865E-06	0.705	20.000
		1.677E-06	0.881	25.000
		1.535E-06	1.058	30.000
		1.421E-06	1.234	35.000
		1.315E-06	1.410	40.000
		1.211E-06	1.587	45.000
		1.124E-06	1.763	50.000
		1.049E-06	1.939	55.000
		9.843E-07	2.116	60.000
		9.276E-07	2.292	65.000
		8.775E-07	2.468	70.000
		8.327E-07	2.644	75.000
		2.185E-06	0.5	14.18

ANNUAL AVERAGE = 4.50E-09

K= 2 FIVEXQ(K)= 2.185E-06 FIVEPR(K)=14.180

FUMIGATION X/Q AT THE BOUNDARY: 4.79E-05

EXPONENTIAL TERM AND FREQUENCIES

9.104E-01	5.450E-01	4.884E-01	3.935E-01	3.694E-01	1.404E-01	1.390E-01
1.588	5.491	58.818	61.795	91.981	97.486	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 947 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE SW SECTOR.

STABILITY CLASS	WINDSPEED METER/SEC AT 152.4 METERS	FREQUENCY PERCENT	DISTANCE METERS	TERRAIN METERS	HT METERS	EFF METERS	PLUME METERS	HT METERS	SIGMA-Y METERS	SIGMA-Z METERS	MEANDER-SY METERS	** CHI/Q VALUES (SEC/CUBIC METER)	MEANDER	BLDG WAKE	USED
												CA=1292.SQ.METERS			
A	3.7	1.73	823.	12.		140.			157.1	310.1	0.0	0.000E+00	0.000E+00	1.573E-06	
A	6.2	1.50	823.	12.		140.			157.1	310.1	0.0	0.000E+00	0.000E+00	9.439E-07	
A	9.2	0.68	823.	12.		140.			157.1	310.1	0.0	0.000E+00	0.000E+00	6.378E-07	
B	1.7	0.15	1000.	15.		137.			140.9	110.2	0.0	0.000E+00	0.000E+00	5.399E-06	
B	3.7	1.35	1000.	15.		137.			140.9	110.2	0.0	0.000E+00	0.000E+00	2.519E-06	
B	6.2	0.98	1000.	15.		137.			140.9	110.2	0.0	0.000E+00	0.000E+00	1.512E-06	
B	9.2	0.15	1000.	15.		137.			140.9	110.2	0.0	0.000E+00	0.000E+00	1.021E-06	
B	12.0	0.08	1000.	15.		137.			140.9	110.2	0.0	0.000E+00	0.000E+00	7.873E-07	
C	1.7	0.90	2000.	33.		119.			200.0	114.9	0.0	0.000E+00	0.000E+00	4.617E-06	
C	3.7	2.10	2000.	33.		119.			200.0	114.9	0.0	0.000E+00	0.000E+00	2.155E-06	
C	6.2	0.68	2000.	33.		119.			200.0	114.9	0.0	0.000E+00	0.000E+00	1.293E-06	
C	9.2	0.30	2000.	33.		119.			200.0	114.9	0.0	0.000E+00	0.000E+00	8.735E-07	
D	0.2	0.02	4000.	69.		84.			263.4	78.0	0.0	0.000E+00	0.000E+00	3.495E-05	
D	1.7	8.10	4000.	69.		84.			263.4	78.0	0.0	0.000E+00	0.000E+00	4.993E-06	
D	3.7	17.86	4000.	69.		84.			263.4	78.0	0.0	0.000E+00	0.000E+00	2.330E-06	
D	6.2	18.83	4000.	69.		84.			263.4	78.0	0.0	0.000E+00	0.000E+00	1.398E-06	
D	9.2	6.38	4000.	69.		84.			263.4	78.0	0.0	0.000E+00	0.000E+00	9.446E-07	
D	12.0	0.98	4000.	69.		84.			263.4	78.0	0.0	0.000E+00	0.000E+00	7.281E-07	
D	27.5	0.90	4000.	69.		84.			263.4	78.0	0.0	0.000E+00	0.000E+00	3.177E-07	
E	0.3	0.02	6000.	105.		48.			270.1	61.6	0.0	0.000E+00	0.000E+00	5.074E-05	
E	2.0	2.70	6000.	105.		48.			270.1	61.6	0.0	0.000E+00	0.000E+00	7.248E-06	
E	4.2	11.25	6000.	105.		48.			270.1	61.6	0.0	0.000E+00	0.000E+00	3.383E-06	
E	7.0	11.71	6000.	105.		48.			270.1	61.6	0.0	0.000E+00	0.000E+00	2.030E-06	
E	10.3	1.95	6000.	105.		48.			270.1	61.6	0.0	0.000E+00	0.000E+00	1.371E-06	
E	13.4	0.60	6000.	105.		48.			270.1	61.6	0.0	0.000E+00	0.000E+00	1.057E-06	
E	30.7	0.08	6000.	105.		48.			270.1	61.6	0.0	0.000E+00	0.000E+00	4.613E-07	
F	0.3	0.02	7000.	123.		30.			214.3	40.2	0.0	0.000E+00	0.000E+00	1.005E-04	
F	2.0	1.65	7000.	123.		30.			214.3	40.2	0.0	0.000E+00	0.000E+00	1.435E-05	
F	4.2	2.55	7000.	123.		30.			214.3	40.2	0.0	0.000E+00	0.000E+00	6.697E-06	
F	7.0	0.98	7000.	123.		30.			214.3	40.2	0.0	0.000E+00	0.000E+00	4.018E-06	
F	10.3	0.08	7000.	123.		30.			214.3	40.2	0.0	0.000E+00	0.000E+00	2.715E-06	
G	2.0	0.83	8000.	128.		24.			166.9	25.6	0.0	0.000E+00	0.000E+00	2.419E-05	
G	4.2	1.65	8000.	128.		24.			166.9	25.6	0.0	0.000E+00	0.000E+00	1.129E-05	

G	7.0	0.30	8000.	128.	24.	166.9	25.6	0.0	0.000E+00	0.000E+00	6.772E-06
---	-----	------	-------	------	-----	-------	------	-----	-----------	-----------	-----------

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 949 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

SITE EXCLUSION BOUNDARY CALCULATIONS:

SW SECTOR BOUNDARY DISTANCE = 823.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.
THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.
THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.005E-04	5.074E-05	3.495E-05	2.419E-05	1.435E-05	1.129E-05	7.248E-06	6.772E-06	6.697E-06	5.399E-06
0.019	0.038	0.057	0.882	2.533	4.183	6.885	7.185	9.736	9.886
0.00059	0.00119	0.00176	0.02742	0.07873	0.13005	0.21402	0.22335	0.30265	0.30732
4.993E-06	4.617E-06	4.018E-06	3.383E-06	2.715E-06	2.519E-06	2.330E-06	2.155E-06	2.030E-06	1.573E-06
17.989	18.890	19.865	31.120	31.195	32.546	50.403	52.504	64.209	65.935
0.55923	0.58722	0.61755	0.96742	0.96976	1.01174	1.56688	1.63219	1.99607	2.04972
1.512E-06	1.398E-06	1.371E-06	1.293E-06	1.057E-06	1.021E-06	9.446E-07	9.439E-07	8.735E-07	7.873E-07
66.911	85.744	87.695	88.370	88.970	89.120	95.498	96.999	97.299	97.374
2.08004	2.66550	2.72615	2.74714	2.76580	2.77047	2.96873	3.01538	3.02471	3.02704
7.281E-07	6.378E-07	4.613E-07	3.177E-07						
98.349	99.025	99.100	100.000						
3.05737	3.07836	3.08069	3.10868						

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.005E-04 DISTANCE = 7000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.027
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 0.130

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 0.559
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 1.994
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(6)= 2.723

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
3	1	-9.20578	-15.95525	-1.54089
3	2	-10.62969	-16.55569	-1.71462
3	3	-11.39183	-16.57032	-1.71948
3	4	-12.20750	-16.94342	-1.86653
3	5	-13.10770	-19.21492	-2.97188
3	6	-13.49974	NUMXQ(K) = 6	
		2.282E-05	0.031	1.000
		1.339E-05	0.093	3.000
		1.028E-05	0.155	5.000
		7.032E-06	0.311	10.000
		5.564E-06	0.466	15.000
		4.657E-06	0.622	20.000
		4.010E-06	0.777	25.000
		3.539E-06	0.933	30.000
		3.176E-06	1.088	35.000
		2.887E-06	1.243	40.000
		2.651E-06	1.399	45.000
		2.452E-06	1.554	50.000
		2.284E-06	1.710	55.000
		2.138E-06	1.865	60.000
		1.999E-06	2.021	65.000
		1.824E-06	2.176	70.000
		1.673E-06	2.332	75.000
		1.542E-06	2.487	80.000
		1.427E-06	2.642	85.000
		5.339E-06	0.5	16.08

ANNUAL AVERAGE = 5.04E-09

K= 3 FIVEXQ(K)= 5.339E-06 FIVEPR(K)=16.084

FUMIGATION X/Q AT THE BOUNDARY: 4.58E-05

EXPONENTIAL TERM AND FREQUENCIES

9.026E-01	7.605E-01	7.410E-01	6.339E-01	5.832E-01	5.638E-01	4.608E-01
3.902	9.173	37.480	40.256	44.232	97.299	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 951 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE WSW SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)			
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG	WAKE	USED
AT 152.4 METERS												CA=1292.SQ.METERS			
A	3.7	2.58	823.	24.	128.	157.1	310.1	0.0	0.000E+00	0.000E+00	1.600E-06				
A	6.2	1.92	823.	24.	128.	157.1	310.1	0.0	0.000E+00	0.000E+00	9.599E-07				
A	9.2	1.19	823.	24.	128.	157.1	310.1	0.0	0.000E+00	0.000E+00	6.486E-07				
A	12.0	0.07	823.	24.	128.	157.1	310.1	0.0	0.000E+00	0.000E+00	4.999E-07				
B	1.7	0.59	900.	25.	127.	128.1	98.0	0.0	0.000E+00	0.000E+00	6.224E-06				
B	3.7	1.65	900.	25.	127.	128.1	98.0	0.0	0.000E+00	0.000E+00	2.905E-06				
B	6.2	0.99	900.	25.	127.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.743E-06				
B	9.2	0.07	900.	25.	127.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.178E-06				
C	1.7	0.99	2000.	39.	114.	200.0	114.9	0.0	0.000E+00	0.000E+00	4.845E-06				
C	3.7	2.44	2000.	39.	114.	200.0	114.9	0.0	0.000E+00	0.000E+00	2.261E-06				
C	6.2	1.12	2000.	39.	114.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.357E-06				
C	9.2	0.20	2000.	39.	114.	200.0	114.9	0.0	0.000E+00	0.000E+00	9.166E-07				
D	0.2	0.02	4000.	63.	89.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.225E-05				
D	1.7	7.86	4000.	63.	89.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.608E-06				
D	3.7	22.19	4000.	63.	89.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.150E-06				
D	6.2	18.36	4000.	63.	89.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.290E-06				
D	9.2	4.43	4000.	63.	89.	263.4	78.0	0.0	0.000E+00	0.000E+00	8.717E-07				
D	12.0	0.73	4000.	63.	89.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.720E-07				
D	27.5	0.13	4000.	63.	89.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.932E-07				
E	0.3	0.03	7000.	100.	52.	310.5	66.2	0.0	0.000E+00	0.000E+00	4.066E-05				
E	2.0	4.03	7000.	100.	52.	310.5	66.2	0.0	0.000E+00	0.000E+00	5.809E-06				
E	4.2	14.46	7000.	100.	52.	310.5	66.2	0.0	0.000E+00	0.000E+00	2.711E-06				
E	7.0	6.67	7000.	100.	52.	310.5	66.2	0.0	0.000E+00	0.000E+00	1.626E-06				
E	10.3	0.73	7000.	100.	52.	310.5	66.2	0.0	0.000E+00	0.000E+00	1.099E-06				
E	13.4	0.26	7000.	100.	52.	310.5	66.2	0.0	0.000E+00	0.000E+00	8.471E-07				
E	30.7	0.07	7000.	100.	52.	310.5	66.2	0.0	0.000E+00	0.000E+00	3.696E-07				
F	0.3	0.02	8000.	104.	48.	241.8	42.4	0.0	0.000E+00	0.000E+00	5.792E-05				
F	2.0	1.72	8000.	104.	48.	241.8	42.4	0.0	0.000E+00	0.000E+00	8.274E-06				
F	4.2	1.92	8000.	104.	48.	241.8	42.4	0.0	0.000E+00	0.000E+00	3.861E-06				
F	7.0	0.53	8000.	104.	48.	241.8	42.4	0.0	0.000E+00	0.000E+00	2.317E-06				
G	2.0	0.66	8000.	104.	48.	166.9	25.6	0.0	0.000E+00	0.000E+00	6.348E-06				
G	4.2	1.25	8000.	104.	48.	166.9	25.6	0.0	0.000E+00	0.000E+00	2.962E-06				
G	7.0	0.13	8000.	104.	48.	166.9	25.6	0.0	0.000E+00	0.000E+00	1.777E-06				

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 952 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

WSW SECTOR BOUNDARY DISTANCE = 823.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

5.792E-05	4.066E-05	3.225E-05	8.274E-06	6.348E-06	6.224E-06	5.809E-06	4.845E-06	4.608E-06	3.861E-06
0.020	0.049	0.066	1.784	2.444	3.039	7.068	8.058	15.918	17.834
0.00070	0.00171	0.00234	0.06299	0.08631	0.10730	0.24959	0.28458	0.56215	0.62979
2.962E-06	2.905E-06	2.711E-06	2.317E-06	2.261E-06	2.150E-06	1.777E-06	1.743E-06	1.626E-06	1.600E-06
19.089	20.740	35.205	35.733	38.177	60.370	60.502	61.493	68.164	70.740
0.67411	0.73242	1.24324	1.26190	1.34821	2.13193	2.13660	2.17159	2.40717	2.49814
1.357E-06	1.290E-06	1.178E-06	1.099E-06	9.599E-07	9.166E-07	8.717E-07	8.471E-07	6.720E-07	6.486E-07
71.863	90.225	90.291	91.017	92.933	93.131	97.556	97.820	98.547	99.736
2.53779	3.18624	3.18857	3.21423	3.28187	3.28887	3.44515	3.45448	3.48013	3.52212
4.999E-07	3.696E-07	2.932E-07							
99.802	99.868	100.000							
3.52445	3.52678	3.53145							

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 5.792E-05 DISTANCE = 8000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.561
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 2.130

Calculation No. PM-1055 Revision 0

Attachment J

Page 953 of 1411

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 3.183
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 3.442

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
4	1	-9.75651	-15.83710	-1.39986
4	2	-12.28779	-16.09319	-1.50087
4	3	-13.04993	-19.03180	-2.95012
4	4	-13.56075	-34.30257	-11.18449
4	5	-13.95280	NUMXQ(K)= 5	
		1.518E-05	0.035	1.000
		9.783E-06	0.106	3.000
		7.867E-06	0.177	5.000
		5.755E-06	0.353	10.000
		4.743E-06	0.530	15.000
		4.080E-06	0.706	20.000
		3.611E-06	0.883	25.000
		3.261E-06	1.059	30.000
		2.985E-06	1.236	35.000
		2.761E-06	1.413	40.000
		2.574E-06	1.589	45.000
		2.416E-06	1.766	50.000
		2.278E-06	1.942	55.000
		2.159E-06	2.119	60.000
		1.962E-06	2.295	65.000
		1.788E-06	2.472	70.000
		1.639E-06	2.649	75.000
		1.509E-06	2.825	80.000
		1.395E-06	3.002	85.000
		1.294E-06	3.178	90.000
		4.878E-06	0.5	14.16

ANNUAL AVERAGE = 1.02E-08

K= 4 FIVEXQ(K)= 4.878E-06 FIVEPR(K)=14.158

FUMIGATION X/Q AT THE BOUNDARY: 5.01E-05

EXPONENTIAL TERM AND FREQUENCIES

9.179E-01	7.335E-01	6.120E-01	5.212E-01	5.203E-01	4.295E-01	1.664E-01
5.746	31.997	36.753	40.933	94.650	97.952	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 954 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE W SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN HT	EFF PLUME HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 152.4 METERS						CA=1292.SQ.METERS					
A	1.7	0.15	823.	31.	121.	157.1	310.1	0.0	0.000E+00	0.000E+00	3.459E-06
A	3.7	4.26	823.	31.	121.	157.1	310.1	0.0	0.000E+00	0.000E+00	1.614E-06
A	6.2	2.25	823.	31.	121.	157.1	310.1	0.0	0.000E+00	0.000E+00	9.686E-07
A	9.2	0.34	823.	31.	121.	157.1	310.1	0.0	0.000E+00	0.000E+00	6.545E-07
B	1.7	0.24	823.	31.	121.	118.1	88.8	0.0	0.000E+00	0.000E+00	6.811E-06
B	3.7	2.74	823.	31.	121.	118.1	88.8	0.0	0.000E+00	0.000E+00	3.178E-06
B	6.2	0.59	823.	31.	121.	118.1	88.8	0.0	0.000E+00	0.000E+00	1.907E-06
B	9.2	0.05	823.	31.	121.	118.1	88.8	0.0	0.000E+00	0.000E+00	1.289E-06
C	1.7	0.05	2000.	39.	114.	200.0	114.9	0.0	0.000E+00	0.000E+00	4.849E-06
C	3.7	2.45	2000.	39.	114.	200.0	114.9	0.0	0.000E+00	0.000E+00	2.263E-06
C	6.2	0.68	2000.	39.	114.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.358E-06
C	9.2	0.15	2000.	39.	114.	200.0	114.9	0.0	0.000E+00	0.000E+00	9.173E-07
C	12.0	0.05	2000.	39.	114.	200.0	114.9	0.0	0.000E+00	0.000E+00	7.071E-07
D	0.2	0.01	4000.	52.	101.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.689E-05
D	1.7	5.63	4000.	52.	101.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.842E-06
D	3.7	21.28	4000.	52.	101.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.793E-06
D	6.2	16.19	4000.	52.	101.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.076E-06
D	9.2	6.46	4000.	52.	101.	263.4	78.0	0.0	0.000E+00	0.000E+00	7.269E-07
D	12.0	1.57	4000.	52.	101.	263.4	78.0	0.0	0.000E+00	0.000E+00	5.603E-07
D	27.5	0.39	4000.	52.	101.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.445E-07
E	0.3	0.02	7000.	71.	81.	310.5	66.2	0.0	0.000E+00	0.000E+00	2.604E-05
E	2.0	2.94	7000.	71.	81.	310.5	66.2	0.0	0.000E+00	0.000E+00	3.720E-06
E	4.2	13.85	7000.	71.	81.	310.5	66.2	0.0	0.000E+00	0.000E+00	1.736E-06
E	7.0	7.88	7000.	71.	81.	310.5	66.2	0.0	0.000E+00	0.000E+00	1.042E-06
E	10.3	2.84	7000.	71.	81.	310.5	66.2	0.0	0.000E+00	0.000E+00	7.039E-07
E	13.4	0.59	7000.	71.	81.	310.5	66.2	0.0	0.000E+00	0.000E+00	5.426E-07
E	30.7	0.98	7000.	71.	81.	310.5	66.2	0.0	0.000E+00	0.000E+00	2.368E-07
F	0.3	0.02	8000.	73.	79.	241.8	42.4	0.0	0.000E+00	0.000E+00	1.924E-05
F	2.0	1.52	8000.	73.	79.	241.8	42.4	0.0	0.000E+00	0.000E+00	2.749E-06
F	4.2	1.66	8000.	73.	79.	241.8	42.4	0.0	0.000E+00	0.000E+00	1.283E-06
F	7.0	0.64	8000.	73.	79.	241.8	42.4	0.0	0.000E+00	0.000E+00	7.696E-07
F	30.7	0.20	8000.	73.	79.	241.8	42.4	0.0	0.000E+00	0.000E+00	1.749E-07
G	2.0	0.64	90000.	73.	79.	1000.0	46.0	0.0	0.000E+00	0.000E+00	7.977E-07

Calculation No. PM-1055 Revision 0

G	4.2	0.64	90000.	73.
G	7.0	0.10	90000.	73.

Attachment J

1000.0	46.0	0.0
1000.0	46.0	0.0

0.000E+00
0.000E+00

Page 955 of 1411

0.000E+00	3.723E-07
0.000E+00	2.234E-07

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 956 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

W SECTOR BOUNDARY DISTANCE = 823.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

2.689E-05	2.604E-05	1.924E-05	6.811E-06	4.849E-06	3.842E-06	3.720E-06	3.459E-06	3.178E-06	2.749E-06
0.013	0.034	0.051	0.296	0.345	5.971	8.906	9.053	11.793	13.309
0.00061	0.00160	0.00244	0.01410	0.01643	0.28467	0.42462	0.43162	0.56224	0.63455
2.263E-06	1.907E-06	1.793E-06	1.736E-06	1.614E-06	1.358E-06	1.289E-06	1.283E-06	1.076E-06	1.042E-06
15.755	16.342	37.624	51.469	55.725	56.410	56.459	58.122	74.316	82.192
0.75118	0.77917	1.79382	2.45392	2.65685	2.68951	2.69184	2.77114	3.54321	3.91875
9.686E-07	9.173E-07	7.977E-07	7.696E-07	7.269E-07	7.071E-07	7.039E-07	6.545E-07	5.603E-07	5.426E-07
84.443	84.589	85.225	85.861	92.319	92.368	95.206	95.548	97.114	97.701
4.02604	4.03304	4.06336	4.09369	4.40158	4.40391	4.53920	4.55553	4.63017	4.65816
3.723E-07	2.445E-07	2.368E-07	2.234E-07	1.749E-07					
98.337	98.728	99.706	99.804	100.000					
4.68848	4.70714	4.75379	4.75845	4.76779					

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 2.689E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 0.424
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 2.451

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 2.654
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(6)= 3.915
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(7)= 4.536

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
5	1	-10.52359	-11.17195	-0.14818
5	2	-10.55575	-15.85762	-1.27495
5	3	-12.50166	-15.52343	-1.14799
5	4	-13.26380	-17.46210	-2.13292
5	5	-13.33655	-18.21624	-2.52280
5	6	-13.77462	-23.78702	-5.68697
5	7	-14.16666	NUMXQ(K)= 7	
		8.762E-06	0.048	1.000
		5.816E-06	0.143	3.000
		4.743E-06	0.238	5.000
		3.555E-06	0.477	10.000
		3.018E-06	0.715	15.000
		2.674E-06	0.954	20.000
		2.427E-06	1.192	25.000
		2.238E-06	1.430	30.000
		2.085E-06	1.669	35.000
		1.960E-06	1.907	40.000
		1.853E-06	2.146	45.000
		1.761E-06	2.384	50.000
		1.634E-06	2.622	55.000
		1.489E-06	2.861	60.000
		1.362E-06	3.099	65.000
		1.253E-06	3.337	70.000
		1.158E-06	3.576	75.000
		1.075E-06	3.814	80.000
		9.534E-07	4.053	85.000
		8.188E-07	4.291	90.000
		3.489E-06	0.5	10.49

ANNUAL AVERAGE = 1.64E-08

K= 5 FIVEXQ(K)= 3.489E-06 FIVEPR(K)=10.487

FUMIGATION X/Q AT THE BOUNDARY: 5.30E-05

EXPONENTIAL TERM AND FREQUENCIES

9.262E-01	6.125E-01	4.698E-01	4.339E-01	3.926E-01	2.255E-01	1.732E-01
6.996	10.372	39.453	90.981	94.601	95.971	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 958 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE WNW SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER BLDG WAKE USED
AT 152.4 METERS												CA=1292.SQ.METERS
A	3.7	2.40	823.	31.	121.	157.1	310.1	0.0	0.000E+00	0.000E+00	1.614E-06	
A	6.2	2.40	823.	31.	121.	157.1	310.1	0.0	0.000E+00	0.000E+00	9.686E-07	
A	9.2	0.16	823.	31.	121.	157.1	310.1	0.0	0.000E+00	0.000E+00	6.545E-07	
A	12.0	0.05	823.	31.	121.	157.1	310.1	0.0	0.000E+00	0.000E+00	5.045E-07	
A	27.5	0.05	823.	31.	121.	157.1	310.1	0.0	0.000E+00	0.000E+00	2.201E-07	
B	3.7	1.58	823.	31.	121.	118.1	88.8	0.0	0.000E+00	0.000E+00	3.178E-06	
B	6.2	1.36	823.	31.	121.	118.1	88.8	0.0	0.000E+00	0.000E+00	1.907E-06	
B	9.2	0.11	823.	31.	121.	118.1	88.8	0.0	0.000E+00	0.000E+00	1.289E-06	
B	12.0	0.05	823.	31.	121.	118.1	88.8	0.0	0.000E+00	0.000E+00	9.932E-07	
C	3.7	3.54	2000.	43.	109.	200.0	114.9	0.0	0.000E+00	0.000E+00	2.351E-06	
C	6.2	1.42	2000.	43.	109.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.411E-06	
C	9.2	0.22	2000.	43.	109.	200.0	114.9	0.0	0.000E+00	0.000E+00	9.532E-07	
C	12.0	0.11	2000.	43.	109.	200.0	114.9	0.0	0.000E+00	0.000E+00	7.348E-07	
D	0.2	0.01	4000.	64.	89.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.255E-05	
D	1.7	4.69	4000.	64.	89.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.650E-06	
D	3.7	16.58	4000.	64.	89.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.170E-06	
D	6.2	16.79	4000.	64.	89.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.302E-06	
D	9.2	7.63	4000.	64.	89.	263.4	78.0	0.0	0.000E+00	0.000E+00	8.797E-07	
D	12.0	1.42	4000.	64.	89.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.781E-07	
D	27.5	0.11	4000.	64.	89.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.959E-07	
E	0.3	0.02	7000.	95.	58.	310.5	66.2	0.0	0.000E+00	0.000E+00	3.800E-05	
E	2.0	3.27	7000.	95.	58.	310.5	66.2	0.0	0.000E+00	0.000E+00	5.429E-06	
E	4.2	10.91	7000.	95.	58.	310.5	66.2	0.0	0.000E+00	0.000E+00	2.534E-06	
E	7.0	14.01	7000.	95.	58.	310.5	66.2	0.0	0.000E+00	0.000E+00	1.520E-06	
E	10.3	3.44	7000.	95.	58.	310.5	66.2	0.0	0.000E+00	0.000E+00	1.027E-06	
E	13.4	1.15	7000.	95.	58.	310.5	66.2	0.0	0.000E+00	0.000E+00	7.918E-07	
E	30.7	0.22	7000.	95.	58.	310.5	66.2	0.0	0.000E+00	0.000E+00	3.455E-07	
F	0.3	0.01	8000.	98.	54.	241.8	42.4	0.0	0.000E+00	0.000E+00	4.879E-05	
F	2.0	1.25	8000.	98.	54.	241.8	42.4	0.0	0.000E+00	0.000E+00	6.969E-06	
F	4.2	2.84	8000.	98.	54.	241.8	42.4	0.0	0.000E+00	0.000E+00	3.252E-06	
F	7.0	1.31	8000.	98.	54.	241.8	42.4	0.0	0.000E+00	0.000E+00	1.951E-06	
F	10.3	0.11	8000.	98.	54.	241.8	42.4	0.0	0.000E+00	0.000E+00	1.319E-06	
F	30.7	0.05	8000.	98.	54.	241.8	42.4	0.0	0.000E+00	0.000E+00	4.435E-07	

Calculation No. PM-1055 Revision 0**Attachment J****Page 959 of 1411**

G	2.0	0.27	10000.	98.	54.	204.1	27.4	0.0	0.000E+00	0.000E+00	4.048E-06
G	4.2	0.33	10000.	98.	54.	204.1	27.4	0.0	0.000E+00	0.000E+00	1.889E-06
G	7.0	0.11	10000.	98.	54.	204.1	27.4	0.0	0.000E+00	0.000E+00	1.133E-06

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 960 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

SITE EXCLUSION BOUNDARY CALCULATIONS:

WNW SECTOR BOUNDARY DISTANCE = 823.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

4.879E-05	3.800E-05	3.255E-05	6.969E-06	5.429E-06	4.650E-06	4.048E-06	3.252E-06	3.178E-06	2.534E-06
0.014	0.038	0.048	1.303	4.574	9.264	9.536	12.372	13.953	24.859
0.00062	0.00162	0.00207	0.05572	0.19567	0.39627	0.40793	0.52922	0.59686	1.06337
2.351E-06	2.170E-06	1.951E-06	1.907E-06	1.889E-06	1.614E-06	1.520E-06	1.411E-06	1.319E-06	1.302E-06
28.403	44.980	46.289	47.652	47.979	50.379	64.393	65.810	65.919	82.714
1.21498	1.92407	1.98005	2.03836	2.05236	2.15499	2.75445	2.81509	2.81976	3.53818
1.289E-06	1.133E-06	1.027E-06	9.932E-07	9.686E-07	9.532E-07	8.797E-07	7.918E-07	7.348E-07	6.781E-07
82.823	82.932	86.368	86.422	88.822	89.040	96.674	97.819	97.928	99.346
3.54284	3.54751	3.69445	3.69679	3.79942	3.80875	4.13530	4.18428	4.18895	4.24960
6.545E-07	5.045E-07	4.435E-07	3.455E-07	2.959E-07	2.201E-07				
99.509	99.564	99.618	99.836	99.945	100.000				
4.25659	4.25893	4.26126	4.27059	4.27525	4.27759				

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 4.879E-05 DISTANCE = 8000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.002
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 0.396

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 1.922
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 3.535
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(6)= 4.132

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
6	1	-9.92807	-15.02759	-1.16679
6	2	-10.17780	-15.99594	-1.39977
6	3	-12.27868	-15.73551	-1.30170
6	4	-13.04082	-17.06571	-1.94427
6	5	-13.55165	-23.41847	-5.45914
6	6	-13.94369	NUMXQ(K)= 6	
		1.202E-05	0.043	1.000
		7.697E-06	0.128	3.000
		6.166E-06	0.214	5.000
		4.496E-06	0.428	10.000
		3.742E-06	0.642	15.000
		3.268E-06	0.856	20.000
		2.933E-06	1.069	25.000
		2.678E-06	1.283	30.000
		2.475E-06	1.497	35.000
		2.309E-06	1.711	40.000
		2.169E-06	1.925	45.000
		1.993E-06	2.139	50.000
		1.843E-06	2.353	55.000
		1.715E-06	2.567	60.000
		1.603E-06	2.780	65.000
		1.505E-06	2.994	70.000
		1.418E-06	3.208	75.000
		1.341E-06	3.422	80.000
		1.217E-06	3.636	85.000
		1.054E-06	3.850	90.000
		4.193E-06	0.5	11.69

ANNUAL AVERAGE = 1.04E-08

K= 6 FIVEXQ(K)= 4.193E-06 FIVEPR(K)=11.689

FUMIGATION X/Q AT THE BOUNDARY: 5.30E-05

EXPONENTIAL TERM AND FREQUENCIES

9.262E-01	6.856E-01	6.365E-01	5.251E-01	4.391E-01	3.926E-01	1.391E-01
5.071	38.085	43.374	90.607	96.183	99.291	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 962 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE NW SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)			
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG	WAKE	USED
AT 152.4 METERS												CA=1292.SQ.METERS			
A	3.7	0.17	823.	24.	128.	157.1	310.1	0.0	0.000E+00	0.000E+00	1.600E-06				
A	6.2	0.87	823.	24.	128.	157.1	310.1	0.0	0.000E+00	0.000E+00	9.599E-07				
A	9.2	0.56	823.	24.	128.	157.1	310.1	0.0	0.000E+00	0.000E+00	6.486E-07				
B	1.7	0.09	900.	25.	127.	128.1	98.0	0.0	0.000E+00	0.000E+00	6.224E-06				
B	3.7	0.43	900.	25.	127.	128.1	98.0	0.0	0.000E+00	0.000E+00	2.905E-06				
B	6.2	1.17	900.	25.	127.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.743E-06				
B	9.2	0.35	900.	25.	127.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.178E-06				
B	12.0	0.04	900.	25.	127.	128.1	98.0	0.0	0.000E+00	0.000E+00	9.077E-07				
C	3.7	0.61	2000.	39.	114.	200.0	114.9	0.0	0.000E+00	0.000E+00	2.261E-06				
C	6.2	2.69	2000.	39.	114.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.357E-06				
C	9.2	0.48	2000.	39.	114.	200.0	114.9	0.0	0.000E+00	0.000E+00	9.166E-07				
D	0.2	0.00	4000.	63.	89.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.225E-05				
D	1.7	1.95	4000.	63.	89.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.608E-06				
D	3.7	14.72	4000.	63.	89.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.150E-06				
D	6.2	20.76	4000.	63.	89.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.290E-06				
D	9.2	6.99	4000.	63.	89.	263.4	78.0	0.0	0.000E+00	0.000E+00	8.717E-07				
D	12.0	0.61	4000.	63.	89.	263.4	78.0	0.0	0.000E+00	0.000E+00	6.720E-07				
D	27.5	0.30	4000.	63.	89.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.932E-07				
E	0.3	0.02	7000.	100.	52.	310.5	66.2	0.0	0.000E+00	0.000E+00	4.066E-05				
E	2.0	2.65	7000.	100.	52.	310.5	66.2	0.0	0.000E+00	0.000E+00	5.809E-06				
E	4.2	14.98	7000.	100.	52.	310.5	66.2	0.0	0.000E+00	0.000E+00	2.711E-06				
E	7.0	15.16	7000.	100.	52.	310.5	66.2	0.0	0.000E+00	0.000E+00	1.626E-06				
E	10.3	4.26	7000.	100.	52.	310.5	66.2	0.0	0.000E+00	0.000E+00	1.099E-06				
E	13.4	0.69	7000.	100.	52.	310.5	66.2	0.0	0.000E+00	0.000E+00	8.471E-07				
E	30.7	0.52	7000.	100.	52.	310.5	66.2	0.0	0.000E+00	0.000E+00	3.696E-07				
F	0.3	0.01	8000.	104.	48.	241.8	42.4	0.0	0.000E+00	0.000E+00	5.792E-05				
F	2.0	1.22	8000.	104.	48.	241.8	42.4	0.0	0.000E+00	0.000E+00	8.274E-06				
F	4.2	3.52	8000.	104.	48.	241.8	42.4	0.0	0.000E+00	0.000E+00	3.861E-06				
F	7.0	2.08	8000.	104.	48.	241.8	42.4	0.0	0.000E+00	0.000E+00	2.317E-06				
F	10.3	0.30	8000.	104.	48.	241.8	42.4	0.0	0.000E+00	0.000E+00	1.565E-06				
G	2.0	0.17	8000.	104.	48.	166.9	25.6	0.0	0.000E+00	0.000E+00	6.348E-06				
G	4.2	1.22	8000.	104.	48.	166.9	25.6	0.0	0.000E+00	0.000E+00	2.962E-06				
G	7.0	0.35	8000.	104.	48.	166.9	25.6	0.0	0.000E+00	0.000E+00	1.777E-06				

G 10.3 0.04 8000. 104.

48. 166.9 25.6 0.0

0.000E+00 0.000E+00 1.201E-06

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 964 of 1411

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

NW SECTOR BOUNDARY DISTANCE = 823.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

5.792E-05	4.066E-05	3.225E-05	8.274E-06	6.348E-06	6.224E-06	5.809E-06	4.608E-06	3.861E-06	2.962E-06
0.014	0.033	0.037	1.253	1.427	1.514	4.163	6.117	9.634	10.850
0.00075	0.00177	0.00200	0.06731	0.07664	0.08131	0.22359	0.32856	0.51749	0.58280
2.905E-06	2.711E-06	2.317E-06	2.261E-06	2.150E-06	1.777E-06	1.743E-06	1.626E-06	1.600E-06	1.565E-06
11.284	26.266	28.350	28.958	43.679	44.026	45.199	60.354	60.527	60.831
0.60613	1.41085	1.52281	1.55547	2.34619	2.36485	2.42783	3.24188	3.25121	3.26754
1.357E-06	1.290E-06	1.201E-06	1.178E-06	1.099E-06	9.599E-07	9.166E-07	9.077E-07	8.717E-07	8.471E-07
63.524	84.280	84.324	84.671	88.927	89.795	90.273	90.316	97.308	98.002
3.41215	4.52710	4.52943	4.54809	4.77668	4.82333	4.84899	4.85132	5.22686	5.26418
6.720E-07	6.486E-07	3.696E-07	2.932E-07						
98.610	99.175	99.696	100.000						
5.29683	5.32716	5.35515	5.37148						

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 5.792E-05 DISTANCE = 8000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(2)=	0.517
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(4)=	2.344

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5) = 4.524
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(6) = 5.223

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
7	1	-9.75651	-16.40331	-1.53598
7	2	-12.46456	-14.91865	-0.95701
7	3	-12.81830	-15.27085	-1.11749
7	4	-13.04993	-16.49719	-1.73454
7	5	-13.56075	-23.13451	-5.65518
7	6	-13.95280	NUMXQ(K) = 6	
		1.142E-05	0.054	1.000
		6.939E-06	0.161	3.000
		5.413E-06	0.269	5.000
		3.813E-06	0.537	10.000
		3.321E-06	0.806	15.000
		2.997E-06	1.074	20.000
		2.761E-06	1.343	25.000
		2.556E-06	1.611	30.000
		2.384E-06	1.880	35.000
		2.241E-06	2.149	40.000
		2.104E-06	2.417	45.000
		1.945E-06	2.686	50.000
		1.810E-06	2.954	55.000
		1.692E-06	3.223	60.000
		1.590E-06	3.491	65.000
		1.500E-06	3.760	70.000
		1.419E-06	4.029	75.000
		1.347E-06	4.297	80.000
		1.261E-06	4.566	85.000
		1.080E-06	4.834	90.000
		3.932E-06	0.5	9.31

ANNUAL AVERAGE = 4.91E-09

K= 7 FIVEXQ(K) = 3.932E-06 FIVEPR(K) = 9.308

FUMIGATION X/Q AT THE BOUNDARY: 5.01E-05

EXPONENTIAL TERM AND FREQUENCIES

9.179E-01	7.335E-01	6.120E-01	5.212E-01	5.203E-01	4.295E-01	1.664E-01
1.607	39.882	43.660	50.796	96.135	98.220	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 966 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1 96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE NNW SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)
CLASS	METER/SEC	PERCENT	METERS	METERS			METERS		METERS	METERS	METERS	MEANDER BLDG WAKE USED
AT 152.4 METERS												
CA=1292.SQ.METERS												
A	3.7	0.09	823.	0.			152.		157.1	310.1	0.0	0.000E+00 0.000E+00 1.545E-06
A	6.2	0.09	823.	0.			152.		157.1	310.1	0.0	0.000E+00 0.000E+00 9.268E-07
B	3.7	0.14	1000.	2.			150.		140.9	110.2	0.0	0.000E+00 0.000E+00 2.164E-06
B	6.2	0.37	1000.	2.			150.		140.9	110.2	0.0	0.000E+00 0.000E+00 1.299E-06
B	9.2	0.37	1000.	2.			150.		140.9	110.2	0.0	0.000E+00 0.000E+00 8.775E-07
B	12.0	0.05	1000.	2.			150.		140.9	110.2	0.0	0.000E+00 0.000E+00 6.764E-07
C	3.7	0.55	2000.	15.			137.		200.0	114.9	0.0	0.000E+00 0.000E+00 1.816E-06
C	6.2	1.01	2000.	15.			137.		200.0	114.9	0.0	0.000E+00 0.000E+00 1.089E-06
C	9.2	0.46	2000.	15.			137.		200.0	114.9	0.0	0.000E+00 0.000E+00 7.361E-07
C	12.0	0.05	2000.	15.			137.		200.0	114.9	0.0	0.000E+00 0.000E+00 5.674E-07
D	0.2	0.00	5000.	55.			98.		322.2	89.1	0.0	0.000E+00 0.000E+00 2.435E-05
D	1.7	1.61	5000.	55.			98.		322.2	89.1	0.0	0.000E+00 0.000E+00 3.479E-06
D	3.7	11.17	5000.	55.			98.		322.2	89.1	0.0	0.000E+00 0.000E+00 1.623E-06
D	6.2	21.42	5000.	55.			98.		322.2	89.1	0.0	0.000E+00 0.000E+00 9.741E-07
D	9.2	5.42	5000.	55.			98.		322.2	89.1	0.0	0.000E+00 0.000E+00 6.582E-07
D	12.0	0.51	5000.	55.			98.		322.2	89.1	0.0	0.000E+00 0.000E+00 5.073E-07
D	27.5	0.32	5000.	55.			98.		322.2	89.1	0.0	0.000E+00 0.000E+00 2.214E-07
E	0.3	0.02	7000.	81.			71.		310.5	66.2	0.0	0.000E+00 0.000E+00 3.101E-05
E	2.0	2.71	7000.	81.			71.		310.5	66.2	0.0	0.000E+00 0.000E+00 4.430E-06
E	4.2	14.29	7000.	81.			71.		310.5	66.2	0.0	0.000E+00 0.000E+00 2.067E-06
E	7.0	20.36	7000.	81.			71.		310.5	66.2	0.0	0.000E+00 0.000E+00 1.240E-06
E	10.3	7.58	7000.	81.			71.		310.5	66.2	0.0	0.000E+00 0.000E+00 8.380E-07
E	13.4	0.51	7000.	81.			71.		310.5	66.2	0.0	0.000E+00 0.000E+00 6.460E-07
E	30.7	0.09	7000.	81.			71.		310.5	66.2	0.0	0.000E+00 0.000E+00 2.819E-07
F	0.3	0.02	8000.	85.			67.		241.8	42.4	0.0	0.000E+00 0.000E+00 3.141E-05
F	2.0	1.47	8000.	85.			67.		241.8	42.4	0.0	0.000E+00 0.000E+00 4.487E-06
F	4.2	4.14	8000.	85.			67.		241.8	42.4	0.0	0.000E+00 0.000E+00 2.094E-06
F	7.0	3.63	8000.	85.			67.		241.8	42.4	0.0	0.000E+00 0.000E+00 1.256E-06
F	10.3	0.37	8000.	85.			67.		241.8	42.4	0.0	0.000E+00 0.000E+00 8.488E-07
G	2.0	0.41	20000.	85.			67.		381.8	33.2	0.0	0.000E+00 0.000E+00 1.628E-06
G	4.2	0.46	20000.	85.			67.		381.8	33.2	0.0	0.000E+00 0.000E+00 7.598E-07
G	7.0	0.28	20000.	85.			67.		381.8	33.2	0.0	0.000E+00 0.000E+00 4.559E-07
G	10.3	0.05	20000.	85.			67.		381.8	33.2	0.0	0.000E+00 0.000E+00 3.080E-07

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 967 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

NNW SECTOR BOUNDARY DISTANCE = 823.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

3.141E-05	3.101E-05	2.435E-05	4.487E-06	4.430E-06	3.479E-06	2.164E-06	2.094E-06	2.067E-06	1.816E-06
0.017	0.036	0.040	1.511	4.222	5.831	5.969	10.105	24.398	24.950
0.00086	0.00184	0.00203	0.07667	0.21429	0.29592	0.30292	0.51285	1.23826	1.26625
1.628E-06	1.623E-06	1.545E-06	1.299E-06	1.256E-06	1.240E-06	1.089E-06	9.741E-07	9.268E-07	8.775E-07
25.363	36.531	36.623	36.991	40.621	60.981	61.992	83.409	83.501	83.868
1.28725	1.85405	1.85872	1.87738	2.06165	3.09495	3.14627	4.23323	4.23789	4.25655
8.488E-07	8.380E-07	7.598E-07	7.361E-07	6.764E-07	6.582E-07	6.460E-07	5.674E-07	5.073E-07	4.559E-07
84.236	91.819	92.279	92.739	92.784	98.208	98.713	98.759	99.265	99.540
4.27521	4.66008	4.68340	4.70673	4.70906	4.98430	5.00996	5.01229	5.03795	5.05194
3.080E-07	2.819E-07	2.214E-07							
99.586	99.678	100.000							
5.05427	5.05894	5.07527							

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 3.141E-05 DISTANCE = 8000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (3) = 1.237

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (4) = 3.092

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 4.230
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(6)= 4.656

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
8	1	-10.36849	-10.68942	-0.07467
8	2	-10.38128	-16.32207	-1.43966
8	3	-13.08933	-16.12345	-1.35120
8	4	-13.60016	-16.75930	-1.69170
8	5	-13.84175	-19.54329	-3.30596
8	6	-13.99220	NUMXQ(K)= 6	
		9.253E-06	0.051	1.000
		5.811E-06	0.152	3.000
		4.610E-06	0.254	5.000
		3.303E-06	0.508	10.000
		2.686E-06	0.761	15.000
		2.305E-06	1.015	20.000
		2.041E-06	1.269	25.000
		1.853E-06	1.523	30.000
		1.705E-06	1.776	35.000
		1.583E-06	2.030	40.000
		1.481E-06	2.284	45.000
		1.394E-06	2.538	50.000
		1.319E-06	2.791	55.000
		1.252E-06	3.045	60.000
		1.182E-06	3.299	65.000
		1.117E-06	3.553	70.000
		1.059E-06	3.806	75.000
		1.007E-06	4.060	80.000
		9.459E-07	4.314	85.000
		8.649E-07	4.568	90.000
		3.328E-06	0.5	9.85

ANNUAL AVERAGE = 8.89E-10

K= 8 FIVEXQ(K)= 3.328E-06 FIVEPR(K)= 9.852

FUMIGATION X/Q AT THE BOUNDARY: 4.22E-05

EXPONENTIAL TERM AND FREQUENCIES

8.862E-01	5.593E-01	5.490E-01	4.915E-01	3.958E-01	2.826E-01	1.266E-01
0.184	45.748	86.195	88.264	89.183	98.805	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 969 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE N SECTOR.

STABILITY CLASS	WINDSPEED METER/SEC	FREQUENCY PERCENT	DISTANCE METERS	TERRAIN METERS	HT METERS	EFF METERS	PLUME METERS	HT METERS	SIGMA-Y METERS	SIGMA-Z METERS	MEANDER-SY METERS	** CHI/Q VALUES (SEC/CUBIC METER)	MEANDER	BLDG WAKE	USED
AT 152.4 METERS												CA=1292.SQ.METERS			
A	6.2	0.28	823.	0.	152.	157.1	310.1	0.0	0.000E+00	0.000E+00	9.268E-07				
A	9.2	0.16	823.	0.	152.	157.1	310.1	0.0	0.000E+00	0.000E+00	6.262E-07				
B	3.7	0.07	1000.	3.	149.	140.9	110.2	0.0	0.000E+00	0.000E+00	2.183E-06				
B	6.2	0.58	1000.	3.	149.	140.9	110.2	0.0	0.000E+00	0.000E+00	1.310E-06				
B	9.2	0.72	1000.	3.	149.	140.9	110.2	0.0	0.000E+00	0.000E+00	8.849E-07				
B	12.0	0.12	1000.	3.	149.	140.9	110.2	0.0	0.000E+00	0.000E+00	6.821E-07				
B	27.5	0.02	1000.	3.	149.	140.9	110.2	0.0	0.000E+00	0.000E+00	2.977E-07				
C	3.7	0.44	2000.	20.	132.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.902E-06				
C	6.2	1.68	2000.	20.	132.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.141E-06				
C	9.2	1.56	2000.	20.	132.	200.0	114.9	0.0	0.000E+00	0.000E+00	7.710E-07				
C	12.0	0.21	2000.	20.	132.	200.0	114.9	0.0	0.000E+00	0.000E+00	5.943E-07				
C	27.5	0.02	2000.	20.	132.	200.0	114.9	0.0	0.000E+00	0.000E+00	2.593E-07				
D	0.2	0.00	5000.	71.	81.	322.2	89.1	0.0	0.000E+00	0.000E+00	2.921E-05				
D	1.7	0.96	5000.	71.	81.	322.2	89.1	0.0	0.000E+00	0.000E+00	4.173E-06				
D	3.7	7.00	5000.	71.	81.	322.2	89.1	0.0	0.000E+00	0.000E+00	1.947E-06				
D	6.2	16.51	5000.	71.	81.	322.2	89.1	0.0	0.000E+00	0.000E+00	1.168E-06				
D	9.2	11.24	5000.	71.	81.	322.2	89.1	0.0	0.000E+00	0.000E+00	7.894E-07				
D	12.0	2.31	5000.	71.	81.	322.2	89.1	0.0	0.000E+00	0.000E+00	6.085E-07				
D	27.5	0.68	5000.	71.	81.	322.2	89.1	0.0	0.000E+00	0.000E+00	2.655E-07				
E	0.3	0.01	7000.	105.	47.	310.5	66.2	0.0	0.000E+00	0.000E+00	4.285E-05				
E	2.0	1.63	7000.	105.	47.	310.5	66.2	0.0	0.000E+00	0.000E+00	6.121E-06				
E	4.2	10.14	7000.	105.	47.	310.5	66.2	0.0	0.000E+00	0.000E+00	2.857E-06				
E	7.0	20.78	7000.	105.	47.	310.5	66.2	0.0	0.000E+00	0.000E+00	1.714E-06				
E	10.3	12.03	7000.	105.	47.	310.5	66.2	0.0	0.000E+00	0.000E+00	1.158E-06				
E	13.4	1.49	7000.	105.	47.	310.5	66.2	0.0	0.000E+00	0.000E+00	8.927E-07				
E	30.7	0.14	7000.	105.	47.	310.5	66.2	0.0	0.000E+00	0.000E+00	3.895E-07				
F	0.3	0.01	8000.	110.	42.	241.8	42.4	0.0	0.000E+00	0.000E+00	6.739E-05				
F	2.0	0.54	8000.	110.	42.	241.8	42.4	0.0	0.000E+00	0.000E+00	9.628E-06				
F	4.2	3.13	8000.	110.	42.	241.8	42.4	0.0	0.000E+00	0.000E+00	4.493E-06				
F	7.0	3.03	8000.	110.	42.	241.8	42.4	0.0	0.000E+00	0.000E+00	2.696E-06				
F	10.3	1.03	8000.	110.	42.	241.8	42.4	0.0	0.000E+00	0.000E+00	1.821E-06				
G	2.0	0.40	8000.	110.	42.	166.9	25.6	0.0	0.000E+00	0.000E+00	9.634E-06				
G	4.2	0.79	8000.	110.	42.	166.9	25.6	0.0	0.000E+00	0.000E+00	4.496E-06				

G	7.0	0.23	8000.	110.	42.	166.9	25.6	0.0	0.000E+00	0.000E+00	2.697E-06
G	10.3	0.05	8000.	110.	42.	166.9	25.6	0.0	0.000E+00	0.000E+00	1.823E-06

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 971 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

N SECTOR BOUNDARY DISTANCE = 823.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

6.739E-05	4.285E-05	2.921E-05	9.634E-06	9.628E-06	6.121E-06	4.496E-06	4.493E-06	4.173E-06	2.857E-06
0.006	0.018	0.020	0.416	0.953	2.585	3.378	6.503	7.460	17.605
0.00062	0.00178	0.00200	0.04165	0.09530	0.25858	0.33788	0.65044	0.74607	1.76072
2.697E-06	2.696E-06	2.183E-06	1.947E-06	1.902E-06	1.823E-06	1.821E-06	1.714E-06	1.310E-06	1.168E-06
17.838	20.870	20.940	27.936	28.379	28.426	29.452	50.232	50.815	67.326
1.78405	2.08727	2.09427	2.79403	2.83835	2.84301	2.94564	5.02392	5.08224	6.73366
1.158E-06	1.141E-06	9.268E-07	8.927E-07	8.849E-07	7.894E-07	7.710E-07	6.821E-07	6.262E-07	6.085E-07
79.360	81.039	81.319	82.812	83.535	94.776	96.339	96.455	96.618	98.927
7.93725	8.10519	8.13318	8.28246	8.35477	9.47904	9.63532	9.64699	9.66331	9.89423
5.943E-07	3.895E-07	2.977E-07	2.655E-07	2.593E-07					
99.137	99.277	99.300	99.977	100.000					
9.91523	9.92922	9.93155	9.99920	10.00153					

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 6.739E-05 DISTANCE = 8000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 1.759

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 5.020

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5) = 8.101

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
9	1	-9.60498	-15.70635	-1.39602
9	2	-12.76587	-14.51462	-0.83024
9	3	-12.82385	-15.16691	-1.15054
9	4	-13.27670	-16.00934	-1.66331
9	5	-13.68357	NUMXQ(K) = 5	
		1.129E-05	0.100	1.000
		6.998E-06	0.300	3.000
		5.505E-06	0.500	5.000
		3.886E-06	1.000	10.000
		3.124E-06	1.500	15.000
		2.735E-06	2.000	20.000
		2.470E-06	2.500	25.000
		2.255E-06	3.000	30.000
		2.083E-06	3.501	35.000
		1.941E-06	4.001	40.000
		1.821E-06	4.501	45.000
		1.718E-06	5.001	50.000
		1.592E-06	5.501	55.000
		1.481E-06	6.001	60.000
		1.384E-06	6.501	65.000
		1.299E-06	7.001	70.000
		1.222E-06	7.501	75.000
		1.154E-06	8.001	80.000
		5.505E-06	0.5	5.00

ANNUAL AVERAGE = 2.53E-09

K= 9 FIVEXQ(K) = 5.505E-06 FIVEPR(K) = 4.999

FUMIGATION X/Q AT THE BOUNDARY: 4.22E-05

EXPONENTIAL TERM AND FREQUENCIES

8.862E-01	7.730E-01	6.584E-01	6.065E-01	5.148E-01	3.992E-01	2.525E-01
0.443	46.678	85.371	93.097	97.015	98.531	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 973 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE NNE SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 152.4 METERS												CA=1292.SQ.METERS		
A	3.7	0.08	823.	0.	152.	157.1	310.1	0.0	0.000E+00	0.000E+00	1.545E-06			
A	6.2	0.28	823.	0.	152.	157.1	310.1	0.0	0.000E+00	0.000E+00	9.268E-07			
A	9.2	0.12	823.	0.	152.	157.1	310.1	0.0	0.000E+00	0.000E+00	6.262E-07			
B	3.7	0.16	1000.	2.	150.	140.9	110.2	0.0	0.000E+00	0.000E+00	2.164E-06			
B	6.2	0.56	1000.	2.	150.	140.9	110.2	0.0	0.000E+00	0.000E+00	1.299E-06			
B	9.2	0.36	1000.	2.	150.	140.9	110.2	0.0	0.000E+00	0.000E+00	8.775E-07			
B	12.0	0.08	1000.	2.	150.	140.9	110.2	0.0	0.000E+00	0.000E+00	6.764E-07			
C	3.7	0.20	2000.	15.	137.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.816E-06			
C	6.2	1.47	2000.	15.	137.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.089E-06			
C	9.2	0.95	2000.	15.	137.	200.0	114.9	0.0	0.000E+00	0.000E+00	7.361E-07			
D	0.2	0.00	5000.	55.	98.	322.2	89.1	0.0	0.000E+00	0.000E+00	2.435E-05			
D	1.7	0.91	5000.	55.	98.	322.2	89.1	0.0	0.000E+00	0.000E+00	3.479E-06			
D	3.7	7.60	5000.	55.	98.	322.2	89.1	0.0	0.000E+00	0.000E+00	1.623E-06			
D	6.2	16.91	5000.	55.	98.	322.2	89.1	0.0	0.000E+00	0.000E+00	9.741E-07			
D	9.2	6.60	5000.	55.	98.	322.2	89.1	0.0	0.000E+00	0.000E+00	6.582E-07			
D	12.0	0.64	5000.	55.	98.	322.2	89.1	0.0	0.000E+00	0.000E+00	5.073E-07			
D	27.5	0.36	5000.	55.	98.	322.2	89.1	0.0	0.000E+00	0.000E+00	2.214E-07			
E	0.3	0.02	7000.	81.	71.	310.5	66.2	0.0	0.000E+00	0.000E+00	3.101E-05			
E	2.0	2.23	7000.	81.	71.	310.5	66.2	0.0	0.000E+00	0.000E+00	4.430E-06			
E	4.2	12.73	7000.	81.	71.	310.5	66.2	0.0	0.000E+00	0.000E+00	2.067E-06			
E	7.0	22.95	7000.	81.	71.	310.5	66.2	0.0	0.000E+00	0.000E+00	1.240E-06			
E	10.3	9.07	7000.	81.	71.	310.5	66.2	0.0	0.000E+00	0.000E+00	8.380E-07			
E	13.4	0.76	7000.	81.	71.	310.5	66.2	0.0	0.000E+00	0.000E+00	6.460E-07			
E	30.7	0.16	7000.	81.	71.	310.5	66.2	0.0	0.000E+00	0.000E+00	2.819E-07			
F	0.3	0.01	8000.	85.	67.	241.8	42.4	0.0	0.000E+00	0.000E+00	3.141E-05			
F	2.0	1.27	8000.	85.	67.	241.8	42.4	0.0	0.000E+00	0.000E+00	4.487E-06			
F	4.2	5.61	8000.	85.	67.	241.8	42.4	0.0	0.000E+00	0.000E+00	2.094E-06			
F	7.0	4.42	8000.	85.	67.	241.8	42.4	0.0	0.000E+00	0.000E+00	1.256E-06			
F	10.3	0.91	8000.	85.	67.	241.8	42.4	0.0	0.000E+00	0.000E+00	8.488E-07			
F	13.4	0.12	8000.	85.	67.	241.8	42.4	0.0	0.000E+00	0.000E+00	6.543E-07			
G	2.0	0.36	20000.	85.	67.	381.8	33.2	0.0	0.000E+00	0.000E+00	1.628E-06			
G	4.2	1.23	20000.	85.	67.	381.8	33.2	0.0	0.000E+00	0.000E+00	7.598E-07			
G	7.0	0.84	20000.	85.	67.	381.8	33.2	0.0	0.000E+00	0.000E+00	4.559E-07			

G	10.3	0.04	20000.	85.	67.	381.8	33.2	0.0	0.000E+00	0.000E+00	3.080E-07
---	------	------	--------	-----	-----	-------	------	-----	-----------	-----------	-----------

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 975 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

NNE SECTOR BOUNDARY DISTANCE = 823.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

3.141E-05	3.101E-05	2.435E-05	4.487E-06	4.430E-06	3.479E-06	2.164E-06	2.094E-06	2.067E-06	1.816E-06
0.015	0.031	0.033	1.306	3.533	4.448	4.607	10.216	22.946	23.145
0.00086	0.00179	0.00191	0.07655	0.20717	0.26082	0.27015	0.59904	1.34545	1.35711
1.628E-06	1.623E-06	1.545E-06	1.299E-06	1.256E-06	1.240E-06	1.089E-06	9.741E-07	9.268E-07	8.775E-07
23.503	31.101	31.180	31.737	36.153	59.106	60.578	77.484	77.763	78.121
1.37810	1.82361	1.82828	1.86093	2.11985	3.46571	3.55202	4.54334	4.55967	4.58066
8.488E-07	8.380E-07	7.598E-07	7.361E-07	6.764E-07	6.582E-07	6.543E-07	6.460E-07	6.262E-07	5.073E-07
79.036	88.106	89.339	90.294	90.373	96.977	97.096	97.852	97.971	98.608
4.63431	5.16612	5.23843	5.29441	5.29908	5.68628	5.69327	5.73759	5.74459	5.78191
4.559E-07	3.080E-07	2.819E-07	2.214E-07						
99.443	99.483	99.642	100.000						
5.83089	5.83322	5.84255	5.86355						

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 3.141E-05 DISTANCE = 8000.000

X/Q PERCENTILES(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(3)=	1.344
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(4)=	3.463

Calculation No. PM-1055 Revision 0

Attachment J

Page 976 of 1411

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 4.540
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(6)= 5.162

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
10	1	-10.36849	-10.70167	-0.07752
10	2	-10.38128	-16.21178	-1.41078
10	3	-13.08933	-15.94073	-1.28831
10	4	-13.60016	-17.09598	-1.92419
10	5	-13.84175	-17.95168	-2.43016
10	6	-13.99220	NUMXQ(K)= 6	
		8.870E-06	0.059	1.000
		5.593E-06	0.176	3.000
		4.443E-06	0.293	5.000
		3.189E-06	0.586	10.000
		2.595E-06	0.880	15.000
		2.228E-06	1.173	20.000
		1.979E-06	1.466	25.000
		1.802E-06	1.759	30.000
		1.661E-06	2.052	35.000
		1.546E-06	2.345	40.000
		1.448E-06	2.639	45.000
		1.365E-06	2.932	50.000
		1.293E-06	3.225	55.000
		1.224E-06	3.518	60.000
		1.141E-06	3.811	65.000
		1.068E-06	4.104	70.000
		1.004E-06	4.398	75.000
		9.387E-07	4.691	80.000
		8.744E-07	4.984	85.000
		3.449E-06	0.5	8.53

ANNUAL AVERAGE = 1.41E-09

K= 10 FIVEXQ(K)= 3.449E-06 FIVEPR(K)= 8.527

FUMIGATION X/Q AT THE BOUNDARY: 4.22E-05

EXPONENTIAL TERM AND FREQUENCIES

8.862E-01	5.593E-01	5.490E-01	4.915E-01	3.958E-01	2.826E-01	1.266E-01
0.477	48.388	81.408	84.033	85.187	97.534	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 977 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE NE SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)			
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG	WAKE	USED
AT 152.4 METERS												CA=1292.SQ.METERS			
A	3.7	0.09	823.	0.	152.	157.1	310.1	0.0	0.000E+00	0.000E+00	1.545E-06				
A	6.2	0.23	823.	0.	152.	157.1	310.1	0.0	0.000E+00	0.000E+00	9.268E-07				
A	9.2	0.09	823.	0.	152.	157.1	310.1	0.0	0.000E+00	0.000E+00	6.262E-07				
B	3.7	0.14	1000.	2.	150.	140.9	110.2	0.0	0.000E+00	0.000E+00	2.164E-06				
B	6.2	0.61	1000.	2.	150.	140.9	110.2	0.0	0.000E+00	0.000E+00	1.299E-06				
B	9.2	0.28	1000.	2.	150.	140.9	110.2	0.0	0.000E+00	0.000E+00	8.775E-07				
B	12.0	0.05	1000.	2.	150.	140.9	110.2	0.0	0.000E+00	0.000E+00	6.764E-07				
C	3.7	0.33	2000.	15.	137.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.816E-06				
C	6.2	1.41	2000.	15.	137.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.089E-06				
C	9.2	0.99	2000.	15.	137.	200.0	114.9	0.0	0.000E+00	0.000E+00	7.361E-07				
C	12.0	0.19	2000.	15.	137.	200.0	114.9	0.0	0.000E+00	0.000E+00	5.674E-07				
C	27.5	0.05	2000.	15.	137.	200.0	114.9	0.0	0.000E+00	0.000E+00	2.476E-07				
D	0.2	0.00	5000.	55.	98.	322.2	89.1	0.0	0.000E+00	0.000E+00	2.435E-05				
D	1.7	1.50	5000.	55.	98.	322.2	89.1	0.0	0.000E+00	0.000E+00	3.479E-06				
D	3.7	7.28	5000.	55.	98.	322.2	89.1	0.0	0.000E+00	0.000E+00	1.623E-06				
D	6.2	13.48	5000.	55.	98.	322.2	89.1	0.0	0.000E+00	0.000E+00	9.741E-07				
D	9.2	5.92	5000.	55.	98.	322.2	89.1	0.0	0.000E+00	0.000E+00	6.582E-07				
D	12.0	0.75	5000.	55.	98.	322.2	89.1	0.0	0.000E+00	0.000E+00	5.073E-07				
D	27.5	0.14	5000.	55.	98.	322.2	89.1	0.0	0.000E+00	0.000E+00	2.214E-07				
E	0.3	0.02	7000.	81.	71.	310.5	66.2	0.0	0.000E+00	0.000E+00	3.101E-05				
E	2.0	2.77	7000.	81.	71.	310.5	66.2	0.0	0.000E+00	0.000E+00	4.430E-06				
E	4.2	13.19	7000.	81.	71.	310.5	66.2	0.0	0.000E+00	0.000E+00	2.067E-06				
E	7.0	16.62	7000.	81.	71.	310.5	66.2	0.0	0.000E+00	0.000E+00	1.240E-06				
E	10.3	10.14	7000.	81.	71.	310.5	66.2	0.0	0.000E+00	0.000E+00	8.380E-07				
E	13.4	0.85	7000.	81.	71.	310.5	66.2	0.0	0.000E+00	0.000E+00	6.460E-07				
E	30.7	0.09	7000.	81.	71.	310.5	66.2	0.0	0.000E+00	0.000E+00	2.819E-07				
F	0.3	0.02	8000.	85.	67.	241.8	42.4	0.0	0.000E+00	0.000E+00	3.141E-05				
F	2.0	1.50	8000.	85.	67.	241.8	42.4	0.0	0.000E+00	0.000E+00	4.487E-06				
F	4.2	7.32	8000.	85.	67.	241.8	42.4	0.0	0.000E+00	0.000E+00	2.094E-06				
F	7.0	7.37	8000.	85.	67.	241.8	42.4	0.0	0.000E+00	0.000E+00	1.256E-06				
F	10.3	1.83	8000.	85.	67.	241.8	42.4	0.0	0.000E+00	0.000E+00	8.488E-07				
G	2.0	0.28	20000.	85.	67.	381.8	33.2	0.0	0.000E+00	0.000E+00	1.628E-06				
G	4.2	1.69	20000.	85.	67.	381.8	33.2	0.0	0.000E+00	0.000E+00	7.598E-07				

G	7.0	2.39	20000.	85.	67.	381.8	33.2	0.0	0.000E+00	0.000E+00	4.559E-07
G	10.3	0.38	20000.	85.	67.	381.8	33.2	0.0	0.000E+00	0.000E+00	3.080E-07

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 979 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

NE SECTOR BOUNDARY DISTANCE = 823.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.
THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.
THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

3.141E-05	3.101E-05	2.435E-05	4.487E-06	4.430E-06	3.479E-06	2.164E-06	2.094E-06	2.067E-06	1.816E-06
0.017	0.037	0.040	1.543	4.313	5.815	5.956	13.281	26.474	26.803
0.00086	0.00184	0.00201	0.07665	0.21427	0.28891	0.29591	0.65978	1.31522	1.33155
1.628E-06	1.623E-06	1.545E-06	1.299E-06	1.256E-06	1.240E-06	1.089E-06	9.741E-07	9.268E-07	8.775E-07
27.084	34.362	34.456	35.066	42.438	59.058	60.467	73.942	74.177	74.458
1.34554	1.70709	1.71175	1.74207	2.10828	2.93399	3.00397	3.67340	3.68507	3.69906
8.488E-07	8.380E-07	7.598E-07	7.361E-07	6.764E-07	6.582E-07	6.460E-07	6.262E-07	5.674E-07	5.073E-07
76.290	86.431	88.121	89.107	89.154	95.070	95.915	96.009	96.197	96.948
3.79003	4.29385	4.37783	4.42681	4.42914	4.72304	4.76502	4.76969	4.77902	4.81634
4.559E-07	3.080E-07	2.819E-07	2.476E-07	2.214E-07					
99.343	99.718	99.812	99.859	100.000					
4.93530	4.95396	4.95862	4.96096	4.96795					

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 3.141E-05 DISTANCE = 8000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 1.314
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 2.931

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 4.290
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(6)= 4.761

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
11	1	-10.36849	-10.68942	-0.07467
11	2	-10.38128	-16.24921	-1.42200
11	3	-13.08933	-16.51740	-1.54270
11	4	-13.60016	-17.88383	-2.26529
11	5	-13.99220	-23.02600	-5.25851
11	6	-14.25249	NUMXQ(K)= 6	
		9.472E-06	0.050	1.000
		5.988E-06	0.149	3.000
		4.765E-06	0.248	5.000
		3.431E-06	0.497	10.000
		2.798E-06	0.745	15.000
		2.407E-06	0.994	20.000
		2.133E-06	1.242	25.000
		1.917E-06	1.490	30.000
		1.743E-06	1.739	35.000
		1.602E-06	1.987	40.000
		1.485E-06	2.236	45.000
		1.386E-06	2.484	50.000
		1.301E-06	2.732	55.000
		1.221E-06	2.981	60.000
		1.127E-06	3.229	65.000
		1.045E-06	3.478	70.000
		9.729E-07	3.726	75.000
		9.095E-07	3.974	80.000
		8.531E-07	4.223	85.000
		7.579E-07	4.471	90.000
		3.420E-06	0.5	10.06

ANNUAL AVERAGE = 1.16E-09

K= 11 FIVEXQ(K)= 3.420E-06 FIVEPR(K)=10.065

FUMIGATION X/Q AT THE BOUNDARY: 4.22E-05

EXPONENTIAL TERM AND FREQUENCIES

8.862E-01	5.593E-01	5.490E-01	4.915E-01	3.958E-01	2.826E-01	1.266E-01
0.423	44.107	73.173	76.131	77.211	95.258	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 981 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1 96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE ENE SECTOR.

STABILITY CLASS	WINDSPEED METER/SEC	FREQUENCY PERCENT	DISTANCE METERS	TERRAIN METERS	HT METERS	EFF METERS	PLUME METERS	HT METERS	SIGMA-Y METERS	SIGMA-Z METERS	MEANDER-SY METERS	** CHI/Q VALUES (SEC/CUBIC METER)
												MEANDER BLDG WAKE USED
												CA=1292.SQ.METERS
A	6.2	0.33	823.	0.	152.	157.1	310.1	0.0	0.000E+00	0.000E+00	9.268E-07	
A	9.2	0.14	823.	0.	152.	157.1	310.1	0.0	0.000E+00	0.000E+00	6.262E-07	
A	12.0	0.09	823.	0.	152.	157.1	310.1	0.0	0.000E+00	0.000E+00	4.827E-07	
A	27.5	0.09	823.	0.	152.	157.1	310.1	0.0	0.000E+00	0.000E+00	2.106E-07	
B	3.7	0.05	1000.	2.	151.	140.9	110.2	0.0	0.000E+00	0.000E+00	2.151E-06	
B	6.2	0.38	1000.	2.	151.	140.9	110.2	0.0	0.000E+00	0.000E+00	1.291E-06	
B	9.2	0.89	1000.	2.	151.	140.9	110.2	0.0	0.000E+00	0.000E+00	8.722E-07	
B	12.0	0.09	1000.	2.	151.	140.9	110.2	0.0	0.000E+00	0.000E+00	6.723E-07	
B	27.5	0.05	1000.	2.	151.	140.9	110.2	0.0	0.000E+00	0.000E+00	2.934E-07	
C	3.7	0.14	2000.	12.	140.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.754E-06	
C	6.2	1.22	2000.	12.	140.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.053E-06	
C	9.2	1.46	2000.	12.	140.	200.0	114.9	0.0	0.000E+00	0.000E+00	7.112E-07	
C	12.0	0.19	2000.	12.	140.	200.0	114.9	0.0	0.000E+00	0.000E+00	5.482E-07	
C	27.5	0.05	2000.	12.	140.	200.0	114.9	0.0	0.000E+00	0.000E+00	2.392E-07	
D	0.2	0.00	5000.	43.	109.	322.2	89.1	0.0	0.000E+00	0.000E+00	2.094E-05	
D	1.7	0.71	5000.	43.	109.	322.2	89.1	0.0	0.000E+00	0.000E+00	2.991E-06	
D	3.7	6.02	5000.	43.	109.	322.2	89.1	0.0	0.000E+00	0.000E+00	1.396E-06	
D	6.2	9.93	5000.	43.	109.	322.2	89.1	0.0	0.000E+00	0.000E+00	8.374E-07	
D	9.2	8.94	5000.	43.	109.	322.2	89.1	0.0	0.000E+00	0.000E+00	5.658E-07	
D	12.0	1.03	5000.	43.	109.	322.2	89.1	0.0	0.000E+00	0.000E+00	4.362E-07	
D	27.5	0.28	5000.	43.	109.	322.2	89.1	0.0	0.000E+00	0.000E+00	1.903E-07	
E	0.3	0.02	7000.	64.	89.	310.5	66.2	0.0	0.000E+00	0.000E+00	2.267E-05	
E	2.0	2.54	7000.	64.	89.	310.5	66.2	0.0	0.000E+00	0.000E+00	3.238E-06	
E	4.2	8.80	7000.	64.	89.	310.5	66.2	0.0	0.000E+00	0.000E+00	1.511E-06	
E	7.0	13.97	7000.	64.	89.	310.5	66.2	0.0	0.000E+00	0.000E+00	9.067E-07	
E	10.3	12.75	7000.	64.	89.	310.5	66.2	0.0	0.000E+00	0.000E+00	6.127E-07	
E	13.4	1.41	7000.	64.	89.	310.5	66.2	0.0	0.000E+00	0.000E+00	4.723E-07	
E	30.7	0.05	7000.	64.	89.	310.5	66.2	0.0	0.000E+00	0.000E+00	2.061E-07	
F	0.3	0.02	10000.	67.	85.	295.8	46.1	0.0	0.000E+00	0.000E+00	1.504E-05	
F	2.0	1.55	10000.	67.	85.	295.8	46.1	0.0	0.000E+00	0.000E+00	2.149E-06	
F	4.2	5.50	10000.	67.	85.	295.8	46.1	0.0	0.000E+00	0.000E+00	1.003E-06	
F	7.0	8.33	10000.	67.	85.	295.8	46.1	0.0	0.000E+00	0.000E+00	6.017E-07	
F	10.3	5.13	10000.	67.	85.	295.8	46.1	0.0	0.000E+00	0.000E+00	4.066E-07	
F	13.4	0.85	10000.	67.	85.	295.8	46.1	0.0	0.000E+00	0.000E+00	3.134E-07	

G	2.0	0.85	90000.	67.	85.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.316E-07
G	4.2	1.60	90000.	67.	85.	1000.0	46.0	0.0	0.000E+00	0.000E+00	2.947E-07
G	7.0	3.29	90000.	67.	85.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.768E-07
G	10.3	1.22	90000.	67.	85.	1000 0	46.0	0.0	0.000E+00	0.000E+00	1.195E-07
G	13.4	0.05	90000.	67.	85.	1000.0	46.0	0.0	0.000E+00	0.000E+00	9.210E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 983 of 1411

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

ENE SECTOR BOUNDARY DISTANCE = 823.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

2.267E-05	2.094E-05	1.504E-05	3.238E-06	2.991E-06	2.151E-06	2.149E-06	1.754E-06	1.511E-06	1.396E-06
0.018	0.020	0.038	2.578	3.283	3.330	4.883	5.024	13.821	19.842
0.00090	0.00098	0.00186	0.12782	0.16281	0.16514	0.24211	0.24911	0.68529	0.98386
1.291E-06	1.053E-06	1.003E-06	9.268E-07	9.067E-07	8.722E-07	8.374E-07	7.112E-07	6.723E-07	6.316E-07
20.218	21.441	26.945	27.274	41.246	42.139	52.065	53.523	53.617	54.464
1.00252	1.06316	1.33607	1.35240	2.04516	2.08947	2.58164	2.65394	2.65861	2.70060
6.262E-07	6.127E-07	6.017E-07	5.658E-07	5.482E-07	4.827E-07	4.723E-07	4.362E-07	4.066E-07	3.134E-07
54.605	67.353	75.680	84.618	84.806	84.900	86.311	87.346	92.473	93.320
2.70759	3.33971	3.75256	4.19574	4.20507	4.20974	4.27971	4.33103	4.58527	4.62726
2.947E-07	2.934E-07	2.392E-07	2.106E-07	2.061E-07	1.903E-07	1.768E-07	1.195E-07	9.210E-08	
94.920	94.967	95.014	95.108	95.155	95.437	98.730	99.953	100.000	
4.70657	4.70890	4.71123	4.71590	4.71823	4.73222	4.89550	4.95615	4.95848	

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 2.267E-05 DISTANCE = 7000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.983
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 2.579

Calculation No. PM-1055 Revision 0

Attachment J

Page 984 of 1411

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 4.192
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 4.582

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
12	1	-10.69455	-16.80625	-1.42491
12	2	-13.48209	-16.56721	-1.32245
12	3	-13.99292	-17.49654	-1.79985
12	4	-14.38496	-28.00529	-7.87852
12	5	-14.71549	NUMXQ(K)= 5	
		5.483E-06	0.050	1.000
		3.463E-06	0.149	3.000
		2.755E-06	0.248	5.000
		1.982E-06	0.496	10.000
		1.616E-06	0.744	15.000
		1.390E-06	0.992	20.000
		1.243E-06	1.240	25.000
		1.131E-06	1.488	30.000
		1.042E-06	1.735	35.000
		9.699E-07	1.983	40.000
		9.090E-07	2.231	45.000
		8.569E-07	2.479	50.000
		8.025E-07	2.727	55.000
		7.494E-07	2.975	60.000
		7.030E-07	3.223	65.000
		6.621E-07	3.471	70.000
		6.257E-07	3.719	75.000
		5.931E-07	3.967	80.000
		5.565E-07	4.215	85.000
		4.500E-07	4.463	90.000
		1.974E-06	0.5	10.08

ANNUAL AVERAGE = 1.18E-09

K= 12 FIVEXQ(K)= 1.974E-06 FIVEPR(K)=10.084

FUMIGATION X/Q AT THE BOUNDARY: 4.22E-05

EXPONENTIAL TERM AND FREQUENCIES

8.862E-01	4.749E-01	4.720E-01	4.089E-01	3.934E-01	1.802E-01	1.786E-01
0.659	3.716	30.625	70.158	71.616	92.991	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 985 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE E SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)
CLASS	METER/SEC	PERCENT	METERS	METERS			METERS		METERS	METERS	METERS	MEANDER BLDG WAKE USED
AT 152.4 METERS												
CA=1292.SQ.METERS												
A	3.7	0.03	823.	0.			152.		157.1	310.1	0.0	0.000E+00 0.000E+00 1.545E-06
A	6.2	0.24	823.	0.			152.		157.1	310.1	0.0	0.000E+00 0.000E+00 9.268E-07
A	9.2	0.63	823.	0.			152.		157.1	310.1	0.0	0.000E+00 0.000E+00 6.262E-07
A	12.0	0.42	823.	0.			152.		157.1	310.1	0.0	0.000E+00 0.000E+00 4.827E-07
A	27.5	0.06	823.	0.			152.		157.1	310.1	0.0	0.000E+00 0.000E+00 2.106E-07
B	3.7	0.12	1000.	1.			151.		140.9	110.2	0.0	0.000E+00 0.000E+00 2.138E-06
B	6.2	0.63	1000.	1.			151.		140.9	110.2	0.0	0.000E+00 0.000E+00 1.283E-06
B	9.2	0.81	1000.	1.			151.		140.9	110.2	0.0	0.000E+00 0.000E+00 8.666E-07
B	12.0	0.36	1000.	1.			151.		140.9	110.2	0.0	0.000E+00 0.000E+00 6.680E-07
B	27.5	0.18	1000.	1.			151.		140.9	110.2	0.0	0.000E+00 0.000E+00 2.915E-07
C	3.7	0.15	2000.	9.			144.		200.0	114.9	0.0	0.000E+00 0.000E+00 1.690E-06
C	6.2	1.25	2000.	9.			144.		200.0	114.9	0.0	0.000E+00 0.000E+00 1.014E-06
C	9.2	1.67	2000.	9.			144.		200.0	114.9	0.0	0.000E+00 0.000E+00 6.853E-07
C	12.0	0.86	2000.	9.			144.		200.0	114.9	0.0	0.000E+00 0.000E+00 5.282E-07
C	27.5	0.39	2000.	9.			144.		200.0	114.9	0.0	0.000E+00 0.000E+00 2.305E-07
D	0.2	0.00	5000.	31.			121.		322.2	89.1	0.0	0.000E+00 0.000E+00 1.752E-05
D	1.7	0.78	5000.	31.			121.		322.2	89.1	0.0	0.000E+00 0.000E+00 2.503E-06
D	3.7	4.21	5000.	31.			121.		322.2	89.1	0.0	0.000E+00 0.000E+00 1.168E-06
D	6.2	8.98	5000.	31.			121.		322.2	89.1	0.0	0.000E+00 0.000E+00 7.009E-07
D	9.2	11.78	5000.	31.			121.		322.2	89.1	0.0	0.000E+00 0.000E+00 4.736E-07
D	12.0	6.71	5000.	31.			121.		322.2	89.1	0.0	0.000E+00 0.000E+00 3.651E-07
D	27.5	2.68	5000.	31.			121.		322.2	89.1	0.0	0.000E+00 0.000E+00 1.593E-07
E	0.3	0.01	8000.	48.			104.		350.3	70.3	0.0	0.000E+00 0.000E+00 1.537E-05
E	2.0	1.61	8000.	48.			104.		350.3	70.3	0.0	0.000E+00 0.000E+00 2.195E-06
E	4.2	5.16	8000.	48.			104.		350.3	70.3	0.0	0.000E+00 0.000E+00 1.024E-06
E	7.0	11.78	8000.	48.			104.		350.3	70.3	0.0	0.000E+00 0.000E+00 6.147E-07
E	10.3	15.99	8000.	48.			104.		350.3	70.3	0.0	0.000E+00 0.000E+00 4.153E-07
E	13.4	2.33	8000.	48.			104.		350.3	70.3	0.0	0.000E+00 0.000E+00 3.201E-07
E	30.7	0.27	8000.	48.			104.		350.3	70.3	0.0	0.000E+00 0.000E+00 1.397E-07
F	0.3	0.01	20000.	48.			104.		553.1	58.7	0.0	0.000E+00 0.000E+00 7.219E-06
F	2.0	0.89	20000.	48.			104.		553.1	58.7	0.0	0.000E+00 0.000E+00 1.031E-06
F	4.2	2.54	20000.	48.			104.		553.1	58.7	0.0	0.000E+00 0.000E+00 4.813E-07
F	7.0	5.91	20000.	48.			104.		553.1	58.7	0.0	0.000E+00 0.000E+00 2.888E-07
F	10.3	5.01	20000.	48.			104.		553.1	58.7	0.0	0.000E+00 0.000E+00 1.951E-07

Calculation No. PM-1055 Revision 0

Attachment J

Page 986 of 1411

F	13.4	0.72	20000.	48.	104.	553.1	58.7	0.0	0.000E+00	0.000E+00	1.504E-07
G	2.0	0.39	90000.	48.	104.	1000.0	46.0	0.0	0.000E+00	0.000E+00	2.694E-07
G	4.2	1.19	90000.	48.	104.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.257E-07
G	7.0	2.06	90000.	48.	104.	1000.0	46.0	0.0	0.000E+00	0.000E+00	7.544E-08
G	10.3	1.16	90000.	48.	104.	1000.0	46.0	0.0	0.000E+00	0.000E+00	5.097E-08
G	13.4	0.03	90000.	48.	104.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.929E-08
G	30.7	0.03	90000.	48.	104.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.715E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 987 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145.

SITE EXCLUSION BOUNDARY CALCULATIONS:

E SECTOR BOUNDARY DISTANCE = 823.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.752E-05	1.537E-05	7.219E-06	2.503E-06	2.195E-06	2.138E-06	1.690E-06	1.545E-06	1.283E-06	1.168E-06
0.002	0.013	0.024	0.799	2.410	2.529	2.678	2.708	3.334	7.540
0.00014	0.00103	0.00184	0.06249	0.18844	0.19777	0.20944	0.21177	0.26075	0.58964
1.031E-06	1.024E-06	1.014E-06	9.268E-07	8.666E-07	7.009E-07	6.853E-07	6.680E-07	6.262E-07	6.147E-07
8.434	13.594	14.847	15.086	15.891	24.869	26.539	26.897	27.523	39.304
0.65961	1.06314	1.16111	1.17977	1.24274	1.94483	2.07546	2.10345	2.15243	3.07378
5.282E-07	4.827E-07	4.813E-07	4.736E-07	4.153E-07	3.651E-07	3.201E-07	2.915E-07	2.888E-07	2.694E-07
40.169	40.587	43.122	54.903	70.890	77.601	79.927	80.106	86.012	86.399
3.14142	3.17408	3.37234	4.29369	5.54392	6.06874	6.25068	6.26467	6.72651	6.75683
2.305E-07	2.106E-07	1.951E-07	1.593E-07	1.504E-07	1.397E-07	1.257E-07	7.544E-08	5.097E-08	3.929E-08
86.787	86.847	91.858	94.542	95.258	95.526	96.719	98.777	99.940	99.970
6.78716	6.79182	7.18368	7.39361	7.44959	7.47059	7.56389	7.72483	7.81580	7.81813
1.715E-08									
100.000									
7.82046									

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.752E-05 DISTANCE = 5000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS

Calculation No. PM-1055 Revision 0

SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

Attachment J

Page 988 of 1411

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (3)= 0.188
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (4)= 1.160
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (5)= 3.071
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (6)= 5.540
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (7)= 6.065

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
13	1	-10.95201	-12.37745	-0.30397
13	2	-11.08330	-17.17374	-1.43052
13	3	-13.02921	-16.59710	-1.23149
13	4	-13.80138	-16.64560	-1.25285
13	5	-14.30217	-16.96023	-1.42106
13	6	-14.69422	-19.24042	-2.85101
13	7	-14.82322	NUMXQ(K)= 7	
		3.210E-06	0.078	1.000
		2.015E-06	0.235	3.000
		1.639E-06	0.391	5.000
		1.216E-06	0.782	10.000
		1.009E-06	1.173	15.000
		8.767E-07	1.564	20.000
		7.829E-07	1.955	25.000
		7.117E-07	2.346	30.000
		6.551E-07	2.737	35.000
		6.079E-07	3.128	40.000
		5.639E-07	3.519	45.000
		5.266E-07	3.910	50.000
		4.943E-07	4.301	55.000
		4.661E-07	4.692	60.000
		4.412E-07	5.083	65.000
		4.190E-07	5.474	70.000
		3.834E-07	5.865	75.000
		1.478E-06	0.5	6.39

ANNUAL AVERAGE = 2.85E-09

K= 13 FIVEXQ(K)= 1.478E-06 FIVEPR(K)= 6.393

FUMIGATION X/Q AT THE BOUNDARY: 4.22E-05

EXPONENTIAL TERM AND FREQUENCIES

8.862E-01	4.576E-01	3.950E-01	3.909E-01	3.324E-01	2.058E-01	7.618E-02
1.372	5.697	40.833	42.921	80.066	95.138	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 989 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE ESE SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 152.4 METERS												CA=1292.SQ.METERS		
A	6.2	0.24	823.	0.	152.	157.1	310.1	0.0	0.000E+00	0.000E+00	9.268E-07			
A	9.2	0.24	823.	0.	152.	157.1	310.1	0.0	0.000E+00	0.000E+00	6.262E-07			
A	12.0	0.05	823.	0.	152.	157.1	310.1	0.0	0.000E+00	0.000E+00	4.827E-07			
A	27.5	0.13	823.	0.	152.	157.1	310.1	0.0	0.000E+00	0.000E+00	2.106E-07			
B	3.7	0.08	1000.	2.	151.	140.9	110.2	0.0	0.000E+00	0.000E+00	2.151E-06			
B	6.2	0.24	1000.	2.	151.	140.9	110.2	0.0	0.000E+00	0.000E+00	1.291E-06			
B	9.2	0.53	1000.	2.	151.	140.9	110.2	0.0	0.000E+00	0.000E+00	8.722E-07			
B	12.0	0.37	1000.	2.	151.	140.9	110.2	0.0	0.000E+00	0.000E+00	6.723E-07			
B	27.5	0.19	1000.	2.	151.	140.9	110.2	0.0	0.000E+00	0.000E+00	2.934E-07			
C	3.7	0.13	2000.	12.	140.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.754E-06			
C	6.2	0.69	2000.	12.	140.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.053E-06			
C	9.2	1.57	2000.	12.	140.	200.0	114.9	0.0	0.000E+00	0.000E+00	7.112E-07			
C	12.0	0.80	2000.	12.	140.	200.0	114.9	0.0	0.000E+00	0.000E+00	5.482E-07			
C	27.5	0.72	2000.	12.	140.	200.0	114.9	0.0	0.000E+00	0.000E+00	2.392E-07			
D	0.2	0.00	5000.	43.	109.	322.2	89.1	0.0	0.000E+00	0.000E+00	2.094E-05			
D	1.7	1.01	5000.	43.	109.	322.2	89.1	0.0	0.000E+00	0.000E+00	2.991E-06			
D	3.7	2.59	5000.	43.	109.	322.2	89.1	0.0	0.000E+00	0.000E+00	1.396E-06			
D	6.2	9.48	5000.	43.	109.	322.2	89.1	0.0	0.000E+00	0.000E+00	8.374E-07			
D	9.2	17.99	5000.	43.	109.	322.2	89.1	0.0	0.000E+00	0.000E+00	5.658E-07			
D	12.0	11.96	5000.	43.	109.	322.2	89.1	0.0	0.000E+00	0.000E+00	4.362E-07			
D	27.5	4.03	5000.	43.	109.	322.2	89.1	0.0	0.000E+00	0.000E+00	1.903E-07			
E	0.3	0.01	7000.	64.	89.	310.5	66.2	0.0	0.000E+00	0.000E+00	2.267E-05			
E	2.0	0.96	7000.	64.	89.	310.5	66.2	0.0	0.000E+00	0.000E+00	3.238E-06			
E	4.2	3.68	7000.	64.	89.	310.5	66.2	0.0	0.000E+00	0.000E+00	1.511E-06			
E	7.0	9.45	7000.	64.	89.	310.5	66.2	0.0	0.000E+00	0.000E+00	9.067E-07			
E	10.3	15.56	7000.	64.	89.	310.5	66.2	0.0	0.000E+00	0.000E+00	6.127E-07			
E	13.4	2.96	7000.	64.	89.	310.5	66.2	0.0	0.000E+00	0.000E+00	4.723E-07			
E	30.7	0.32	7000.	64.	89.	310.5	66.2	0.0	0.000E+00	0.000E+00	2.061E-07			
F	0.3	0.01	10000.	67.	85.	295.8	46.1	0.0	0.000E+00	0.000E+00	1.504E-05			
F	2.0	0.75	10000.	67.	85.	295.8	46.1	0.0	0.000E+00	0.000E+00	2.149E-06			
F	4.2	1.76	10000.	67.	85.	295.8	46.1	0.0	0.000E+00	0.000E+00	1.003E-06			
F	7.0	3.74	10000.	67.	85.	295.8	46.1	0.0	0.000E+00	0.000E+00	6.017E-07			
F	10.3	3.68	10000.	67.	85.	295.8	46.1	0.0	0.000E+00	0.000E+00	4.066E-07			
F	13.4	0.48	10000.	67.	85.	295.8	46.1	0.0	0.000E+00	0.000E+00	3.134E-07			

G	2.0	0.37	90000.	67.	85.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.316E-07
G	4.2	0.93	90000.	67.	85.	1000.0	46.0	0.0	0.000E+00	0.000E+00	2.947E-07
G	7.0	1.17	90000.	67.	85.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.768E-07
G	10.3	1.04	90000.	67.	85.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.195E-07
G	13.4	0.05	90000.	67.	85.	1000.0	46.0	0.0	0.000E+00	0.000E+00	9.210E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 991 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

ESE SECTOR BOUNDARY DISTANCE = 823.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

2.267E-05	2.094E-05	1.504E-05	3.238E-06	2.991E-06	2.151E-06	2.149E-06	1.754E-06	1.511E-06	1.396E-06
0.007	0.009	0.018	0.979	1.993	2.073	2.820	2.954	6.637	9.226
0.00060	0.00080	0.00155	0.08552	0.17416	0.18116	0.24647	0.25813	0.58002	0.80627
1.291E-06	1.053E-06	1.003E-06	9.268E-07	9.067E-07	8.722E-07	8.374E-07	7.112E-07	6.723E-07	6.316E-07
9.466	10.160	11.922	12.162	21.610	22.144	31.619	33.194	33.568	33.941
0.82727	0.88791	1.04186	1.06285	1.88856	1.93521	2.76326	2.90088	2.93354	2.96619
6.262E-07	6.127E-07	6.017E-07	5.658E-07	5.482E-07	4.827E-07	4.723E-07	4.362E-07	4.066E-07	3.134E-07
34.181	49.742	53.479	71.468	72.269	72.322	75.285	87.242	90.925	91.406
2.98718	4.34704	4.67360	6.24572	6.31570	6.32036	6.57927	7.62424	7.94613	7.98812
2.947E-07	2.934E-07	2.392E-07	2.106E-07	2.061E-07	1.903E-07	1.768E-07	1.195E-07	9.210E-08	
92.340	92.527	93.247	93.381	93.701	97.731	98.906	99.947	100.000	
8.06975	8.08608	8.14906	8.16072	8.18871	8.54092	8.64356	8.73452	8.73919	

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 2.267E-05 DISTANCE = 7000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.001
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 0.174

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 0.805
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 2.761
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(6)= 6.242
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(7)= 7.620

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
14	1	-10.69455	-16.18867	-1.25483
14	2	-10.77404	-16.80111	-1.39677
14	3	-12.71995	-17.04087	-1.47882
14	4	-13.48209	-15.99454	-1.04403
14	5	-13.99292	-15.95833	-1.02514
14	6	-14.38496	-18.23686	-2.50973
14	7	-14.64524	NUMXQ(K)= 7	
		4.002E-06	0.087	1.000
		2.468E-06	0.262	3.000
		1.921E-06	0.437	5.000
		1.353E-06	0.874	10.000
		1.153E-06	1.311	15.000
		1.023E-06	1.748	20.000
		9.298E-07	2.185	25.000
		8.576E-07	2.622	30.000
		8.000E-07	3.059	35.000
		7.525E-07	3.496	40.000
		7.120E-07	3.933	45.000
		6.770E-07	4.370	50.000
		6.462E-07	4.807	55.000
		6.188E-07	5.244	60.000
		5.942E-07	5.680	65.000
		5.720E-07	6.117	70.000
		5.319E-07	6.554	75.000
		4.891E-07	6.991	80.000
		4.516E-07	7.428	85.000
		1.794E-06	0.5	5.72

ANNUAL AVERAGE = 1.87E-09

K= 14 FIVEXQ(K)= 1.794E-06 FIVEPR(K)= 5.721

FUMIGATION X/Q AT THE BOUNDARY: 4.22E-05

EXPONENTIAL TERM AND FREQUENCIES

8.862E-01	4.749E-01	4.720E-01	4.089E-01	3.934E-01	1.802E-01	1.786E-01
0.667	4.591	51.648	84.591	86.006	96.423	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 993 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE SE SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 152.4 METERS												CA=1292.SQ.METERS		
A	6.2	0.04	823.	0.	152.	157.1	310.1	0.0	0.000E+00	0.000E+00	9.268E-07			
A	9.2	0.06	823.	0.	152.	157.1	310.1	0.0	0.000E+00	0.000E+00	6.262E-07			
A	27.5	0.02	823.	0.	152.	157.1	310.1	0.0	0.000E+00	0.000E+00	2.106E-07			
B	3.7	0.08	1000.	1.	151.	140.9	110.2	0.0	0.000E+00	0.000E+00	2.134E-06			
B	6.2	0.04	1000.	1.	151.	140.9	110.2	0.0	0.000E+00	0.000E+00	1.280E-06			
B	9.2	0.19	1000.	1.	151.	140.9	110.2	0.0	0.000E+00	0.000E+00	8.651E-07			
B	12.0	0.08	1000.	1.	151.	140.9	110.2	0.0	0.000E+00	0.000E+00	6.668E-07			
C	3.7	0.06	2000.	8.	145.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.674E-06			
C	6.2	0.55	2000.	8.	145.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.004E-06			
C	9.2	0.74	2000.	8.	145.	200.0	114.9	0.0	0.000E+00	0.000E+00	6.785E-07			
C	12.0	0.59	2000.	8.	145.	200.0	114.9	0.0	0.000E+00	0.000E+00	5.230E-07			
C	27.5	0.13	2000.	8.	145.	200.0	114.9	0.0	0.000E+00	0.000E+00	2.282E-07			
D	0.2	0.00	5000.	28.	125.	322.2	89.1	0.0	0.000E+00	0.000E+00	1.667E-05			
D	1.7	0.76	5000.	28.	125.	322.2	89.1	0.0	0.000E+00	0.000E+00	2.381E-06			
D	3.7	4.10	5000.	28.	125.	322.2	89.1	0.0	0.000E+00	0.000E+00	1.111E-06			
D	6.2	11.52	5000.	28.	125.	322.2	89.1	0.0	0.000E+00	0.000E+00	6.667E-07			
D	9.2	22.08	5000.	28.	125.	322.2	89.1	0.0	0.000E+00	0.000E+00	4.505E-07			
D	12.0	11.54	5000.	28.	125.	322.2	89.1	0.0	0.000E+00	0.000E+00	3.473E-07			
D	27.5	3.91	5000.	28.	125.	322.2	89.1	0.0	0.000E+00	0.000E+00	1.515E-07			
E	0.3	0.01	8000.	43.	109.	350.3	70.3	0.0	0.000E+00	0.000E+00	1.379E-05			
E	2.0	0.83	8000.	43.	109.	350.3	70.3	0.0	0.000E+00	0.000E+00	1.970E-06			
E	4.2	3.61	8000.	43.	109.	350.3	70.3	0.0	0.000E+00	0.000E+00	9.196E-07			
E	7.0	11.03	8000.	43.	109.	350.3	70.3	0.0	0.000E+00	0.000E+00	5.517E-07			
E	10.3	13.83	8000.	43.	109.	350.3	70.3	0.0	0.000E+00	0.000E+00	3.728E-07			
E	13.4	1.89	8000.	43.	109.	350.3	70.3	0.0	0.000E+00	0.000E+00	2.874E-07			
E	30.7	0.13	8000.	43.	109.	350.3	70.3	0.0	0.000E+00	0.000E+00	1.254E-07			
F	0.3	0.01	20000.	43.	109.	553.1	58.7	0.0	0.000E+00	0.000E+00	6.182E-06			
F	2.0	0.55	20000.	43.	109.	553.1	58.7	0.0	0.000E+00	0.000E+00	8.832E-07			
F	4.2	2.00	20000.	43.	109.	553.1	58.7	0.0	0.000E+00	0.000E+00	4.121E-07			
F	7.0	3.78	20000.	43.	109.	553.1	58.7	0.0	0.000E+00	0.000E+00	2.473E-07			
F	10.3	1.91	20000.	43.	109.	553.1	58.7	0.0	0.000E+00	0.000E+00	1.671E-07			
G	2.0	0.28	90000.	43.	109.	1000.0	46.0	0.0	0.000E+00	0.000E+00	2.093E-07			
G	4.2	1.49	90000.	43.	109.	1000.0	46.0	0.0	0.000E+00	0.000E+00	9.768E-08			

Calculation No. PM-1055 Revision 0**Attachment J****Page 994 of 1411**

G	7.0	1.95	90000.	43.	109.	1000.0	46.0	0.0	0.000E+00	0.000E+00	5.861E-08
G	10.3	0.19	90000.	43.	109.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.960E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 995 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

SE SECTOR BOUNDARY DISTANCE = 823.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.667E-05	1.379E-05	6.182E-06	2.381E-06	2.134E-06	1.970E-06	1.674E-06	1.280E-06	1.111E-06	1.004E-06
0.002	0.008	0.014	0.779	0.864	1.692	1.756	1.799	5.899	6.452
0.00019	0.00084	0.00154	0.08551	0.09484	0.18581	0.19280	0.19747	0.64765	0.70829
9.268E-07	9.196E-07	8.832E-07	8.651E-07	6.785E-07	6.668E-07	6.667E-07	6.262E-07	5.517E-07	5.230E-07
6.494	10.106	10.658	10.850	11.593	11.678	23.194	23.258	34.285	34.880
0.71296	1.10949	1.17013	1.19112	1.27276	1.28209	2.54632	2.55332	3.76390	3.82921
4.505E-07	4.121E-07	3.728E-07	3.473E-07	2.874E-07	2.473E-07	2.282E-07	2.106E-07	2.093E-07	1.671E-07
56.955	58.952	72.783	84.320	86.211	89.993	90.120	90.142	90.418	92.330
6.25270	6.47196	7.99044	9.25700	9.46459	9.87978	9.89378	9.89611	9.92643	10.13636
1.515E-07	1.254E-07	9.768E-08	5.861E-08	3.960E-08					
96.239	96.367	97.854	99.809	100.000					
10.56554	10.57954	10.74282	10.95741	10.97840					

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.667E-05 DISTANCE = 5000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3) = 0.647
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(6) = 9.254

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
15	1	-11.00199	-13.75410	-0.59539
15	2	-11.19132	-17.15179	-1.38474
15	3	-13.71004	-16.08744	-0.95651
15	4	-13.89937	-16.06609	-0.94718
15	5	-14.61291	-16.52435	-1.24587
15	6	-14.87319	NUMXQ(K) = 6	
		2.471E-06	0.110	1.000
		1.532E-06	0.329	3.000
		1.205E-06	0.549	5.000
		9.231E-07	1.098	10.000
		7.946E-07	1.647	15.000
		7.106E-07	2.196	20.000
		6.493E-07	2.745	25.000
		6.017E-07	3.294	30.000
		5.631E-07	3.842	35.000
		5.308E-07	4.391	40.000
		5.032E-07	4.940	45.000
		4.792E-07	5.489	50.000
		4.581E-07	6.038	55.000
		4.358E-07	6.587	60.000
		4.138E-07	7.136	65.000
		3.941E-07	7.685	70.000
		3.763E-07	8.234	75.000
		3.601E-07	8.783	80.000
		1.260E-06	0.5	4.55

ANNUAL AVERAGE = 8.26E-10

K= 15 FIVEXQ(K)= 1.260E-06 FIVEPR(K)= 4.554

FUMIGATION X/Q AT THE BOUNDARY: 4.22E-05

EXPONENTIAL TERM AND FREQUENCIES

8.862E-01	4.531E-01	3.902E-01	3.758E-01	2.984E-01	1.763E-01	5.918E-02
0.127	2.210	2.613	56.517	87.841	96.091	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 997 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1 96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE SSE SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 152.4 METERS												CA=1292.SQ.METERS		
A	3.7	0.02	823.	31.	121.	157.1	310.1	0.0	0.000E+00	0.000E+00	1.614E-06			
A	6.2	0.17	823.	31.	121.	157.1	310.1	0.0	0.000E+00	0.000E+00	9.686E-07			
A	9.2	0.32	823.	31.	121.	157.1	310.1	0.0	0.000E+00	0.000E+00	6.545E-07			
A	12.0	0.02	823.	31.	121.	157.1	310.1	0.0	0.000E+00	0.000E+00	5.045E-07			
A	27.5	0.02	823.	31.	121.	157.1	310.1	0.0	0.000E+00	0.000E+00	2.201E-07			
B	3.7	0.06	823.	31.	121.	118.1	88.8	0.0	0.000E+00	0.000E+00	3.178E-06			
B	6.2	0.48	823.	31.	121.	118.1	88.8	0.0	0.000E+00	0.000E+00	1.907E-06			
B	9.2	0.71	823.	31.	121.	118.1	88.8	0.0	0.000E+00	0.000E+00	1.289E-06			
B	12.0	0.11	823.	31.	121.	118.1	88.8	0.0	0.000E+00	0.000E+00	9.932E-07			
C	3.7	0.48	2000.	33.	119.	200.0	114.9	0.0	0.000E+00	0.000E+00	2.156E-06			
C	6.2	2.16	2000.	33.	119.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.294E-06			
C	9.2	2.01	2000.	33.	119.	200.0	114.9	0.0	0.000E+00	0.000E+00	8.743E-07			
C	12.0	0.37	2000.	33.	119.	200.0	114.9	0.0	0.000E+00	0.000E+00	6.739E-07			
D	0.2	0.00	4000.	37.	116.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.070E-05			
D	1.7	1.08	4000.	37.	116.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.958E-06			
D	3.7	8.31	4000.	37.	116.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.380E-06			
D	6.2	20.04	4000.	37.	116.	263.4	78.0	0.0	0.000E+00	0.000E+00	8.282E-07			
D	9.2	19.82	4000.	37.	116.	263.4	78.0	0.0	0.000E+00	0.000E+00	5.596E-07			
D	12.0	5.23	4000.	37.	116.	263.4	78.0	0.0	0.000E+00	0.000E+00	4.313E-07			
D	27.5	1.36	4000.	37.	116.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.882E-07			
E	0.3	0.01	7000.	42.	110.	310.5	66.2	0.0	0.000E+00	0.000E+00	1.394E-05			
E	2.0	0.73	7000.	42.	110.	310.5	66.2	0.0	0.000E+00	0.000E+00	1.992E-06			
E	4.2	4.38	7000.	42.	110.	310.5	66.2	0.0	0.000E+00	0.000E+00	9.295E-07			
E	7.0	11.10	7000.	42.	110.	310.5	66.2	0.0	0.000E+00	0.000E+00	5.577E-07			
E	10.3	10.11	7000.	42.	110.	310.5	66.2	0.0	0.000E+00	0.000E+00	3.768E-07			
E	13.4	0.93	7000.	42.	110.	310.5	66.2	0.0	0.000E+00	0.000E+00	2.905E-07			
E	30.7	0.22	7000.	42.	110.	310.5	66.2	0.0	0.000E+00	0.000E+00	1.267E-07			
F	0.3	0.01	20000.	43.	109.	553.1	58.7	0.0	0.000E+00	0.000E+00	6.182E-06			
F	2.0	0.48	20000.	43.	109.	553.1	58.7	0.0	0.000E+00	0.000E+00	8.832E-07			
F	4.2	2.09	20000.	43.	109.	553.1	58.7	0.0	0.000E+00	0.000E+00	4.121E-07			
F	7.0	2.72	20000.	43.	109.	553.1	58.7	0.0	0.000E+00	0.000E+00	2.473E-07			
F	10.3	0.69	20000.	43.	109.	553.1	58.7	0.0	0.000E+00	0.000E+00	1.671E-07			
F	13.4	0.11	20000.	43.	109.	553.1	58.7	0.0	0.000E+00	0.000E+00	1.288E-07			

Calculation No. PM-1055 Revision 0**Attachment J****Page 998 of 1411**

G	2.0	0.41	90000.	43.	109.	1000.0	46.0	0.0	0.000E+00	0.000E+00	2.093E-07
G	4.2	1.27	90000.	43.	109.	1000.0	46.0	0.0	0.000E+00	0.000E+00	9.768E-08
G	7.0	1.84	90000.	43.	109.	1000.0	46.0	0.0	0.000E+00	0.000E+00	5.861E-08
G	10.3	0.11	90000.	43.	109.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.960E-08
G	30.7	0.02	90000.	43.	109.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.332E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 999 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1 96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

SSE SECTOR BOUNDARY DISTANCE = 823.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

2.070E-05	1.394E-05	6.182E-06	3.178E-06	2.958E-06	2.156E-06	1.992E-06	1.907E-06	1.614E-06	1.380E-06
0.002	0.008	0.013	0.078	1.158	1.633	2.367	2.842	2.864	11.178
0.00026	0.00083	0.00142	0.00842	0.12504	0.17636	0.25567	0.30698	0.30931	1.20734
1.294E-06	1.289E-06	9.932E-07	9.686E-07	9.295E-07	8.832E-07	8.743E-07	8.282E-07	6.739E-07	6.545E-07
13.338	14.050	14.158	14.331	18.715	19.190	21.198	41.239	41.606	41.930
1.44059	1.51756	1.52922	1.54788	2.02139	2.07270	2.28963	4.45421	4.49386	4.52885
5.596E-07	5.577E-07	5.045E-07	4.313E-07	4.121E-07	3.768E-07	2.905E-07	2.473E-07	2.201E-07	2.093E-07
61.754	72.855	72.876	78.102	80.197	90.304	91.232	93.953	93.975	94.385
6.67011	7.86903	7.87136	8.43583	8.66208	9.75371	9.85400	10.14790	10.15024	10.19455
1.882E-07	1.671E-07	1.288E-07	1.267E-07	9.768E-08	5.861E-08	3.960E-08	1.332E-08		
95.746	96.437	96.545	96.761	98.035	99.870	99.978	100.000		
10.34150	10.41614	10.42781	10.45113	10.58875	10.78702	10.79868	10.80101		

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 2.070E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(2)=	1.206
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(5)=	7.865

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(6)= 9.751

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
16	1	-10.78519	-16.15022	-1.17814
16	2	-13.49324	-15.22974	-0.76999
16	3	-13.56201	-15.61977	-0.95006
16	4	-14.00407	-16.35182	-1.38052
16	5	-14.39950	-19.08640	-3.31419
16	6	-14.79154	NUMXQ(K)= 6	
		3.594E-06	0.108	1.000
		2.394E-06	0.324	3.000
		1.952E-06	0.540	5.000
		1.451E-06	1.080	10.000
		1.257E-06	1.620	15.000
		1.124E-06	2.160	20.000
		1.027E-06	2.700	25.000
		9.517E-07	3.240	30.000
		8.906E-07	3.780	35.000
		8.396E-07	4.320	40.000
		7.818E-07	4.860	45.000
		7.283E-07	5.401	50.000
		6.821E-07	5.941	55.000
		6.418E-07	6.481	60.000
		6.061E-07	7.021	65.000
		5.743E-07	7.561	70.000
		5.295E-07	8.101	75.000
		4.713E-07	8.641	80.000
		4.218E-07	9.181	85.000
		3.792E-07	9.721	90.000
		2.015E-06	0.5	4.63

ANNUAL AVERAGE = 6.16E-09

K= 16 FIVEXQ(K)= 2.015E-06 FIVEPR(K)= 4.629

FUMIGATION X/Q AT THE BOUNDARY: 5.30E-05

EXPONENTIAL TERM AND FREQUENCIES

9.262E-01	5.837E-01	3.926E-01	3.340E-01	2.515E-01	1.763E-01	5.918E-02
0.561	5.572	6.932	62.780	90.255	96.350	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1001 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE ALL SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 152.4 METERS												CA=1292.SQ.METERS		
A	1.7	0.01	823.	30.	122.	157.1	310.1	0.0	0.000E+00	0.000E+00	3.457E-06			
A	3.7	0.51	823.	30.	122.	157.1	310.1	0.0	0.000E+00	0.000E+00	1.613E-06			
A	6.2	0.53	823.	30.	122.	157.1	310.1	0.0	0.000E+00	0.000E+00	9.679E-07			
A	9.2	0.28	823.	30.	122.	157.1	310.1	0.0	0.000E+00	0.000E+00	6.540E-07			
A	12.0	0.06	823.	30.	122.	157.1	310.1	0.0	0.000E+00	0.000E+00	5.041E-07			
A	27.5	0.03	823.	30.	122.	157.1	310.1	0.0	0.000E+00	0.000E+00	2.200E-07			
B	1.7	0.05	900.	31.	121.	128.1	98.0	0.0	0.000E+00	0.000E+00	6.759E-06			
B	3.7	0.47	900.	31.	121.	128.1	98.0	0.0	0.000E+00	0.000E+00	3.154E-06			
B	6.2	0.54	900.	31.	121.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.892E-06			
B	9.2	0.44	900.	31.	121.	128.1	98.0	0.0	0.000E+00	0.000E+00	1.279E-06			
B	12.0	0.12	900.	31.	121.	128.1	98.0	0.0	0.000E+00	0.000E+00	9.857E-07			
B	27.5	0.03	900.	31.	121.	128.1	98.0	0.0	0.000E+00	0.000E+00	4.301E-07			
C	1.7	0.08	2000.	43.	109.	200.0	114.9	0.0	0.000E+00	0.000E+00	5.038E-06			
C	3.7	0.77	2000.	43.	109.	200.0	114.9	0.0	0.000E+00	0.000E+00	2.351E-06			
C	6.2	1.33	2000.	43.	109.	200.0	114.9	0.0	0.000E+00	0.000E+00	1.411E-06			
C	9.2	1.04	2000.	43.	109.	200.0	114.9	0.0	0.000E+00	0.000E+00	9.532E-07			
C	12.0	0.30	2000.	43.	109.	200.0	114.9	0.0	0.000E+00	0.000E+00	7.348E-07			
C	27.5	0.13	2000.	43.	109.	200.0	114.9	0.0	0.000E+00	0.000E+00	3.206E-07			
D	0.2	0.00	4000.	69.	83.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.519E-05			
D	1.7	2.07	4000.	69.	83.	263.4	78.0	0.0	0.000E+00	0.000E+00	5.028E-06			
D	3.7	9.39	4000.	69.	83.	263.4	78.0	0.0	0.000E+00	0.000E+00	2.346E-06			
D	6.2	15.72	4000.	69.	83.	263.4	78.0	0.0	0.000E+00	0.000E+00	1.408E-06			
D	9.2	12.23	4000.	69.	83.	263.4	78.0	0.0	0.000E+00	0.000E+00	9.512E-07			
D	12.0	4.24	4000.	69.	83.	263.4	78.0	0.0	0.000E+00	0.000E+00	7.332E-07			
D	27.5	1.39	4000.	69.	83.	263.4	78.0	0.0	0.000E+00	0.000E+00	3.199E-07			
E	0.3	0.01	6000.	100.	52.	270.1	61.6	0.0	0.000E+00	0.000E+00	4.769E-05			
E	2.0	1.97	6000.	100.	52.	270.1	61.6	0.0	0.000E+00	0.000E+00	6.812E-06			
E	4.2	8.90	6000.	100.	52.	270.1	61.6	0.0	0.000E+00	0.000E+00	3.179E-06			
E	7.0	13.85	6000.	100.	52.	270.1	61.6	0.0	0.000E+00	0.000E+00	1.907E-06			
E	10.3	9.53	6000.	100.	52.	270.1	61.6	0.0	0.000E+00	0.000E+00	1.289E-06			
E	13.4	1.29	6000.	100.	52.	270.1	61.6	0.0	0.000E+00	0.000E+00	9.935E-07			
E	30.7	0.23	6000.	100.	52.	270.1	61.6	0.0	0.000E+00	0.000E+00	4.335E-07			
F	0.3	0.01	8000.	128.	24.	241.8	42.4	0.0	0.000E+00	0.000E+00	9.416E-05			
F	2.0	1.01	8000.	128.	24.	241.8	42.4	0.0	0.000E+00	0.000E+00	1.345E-05			

F	4.2	3.14	8000.	128.	24.	241.8	42.4	0.0	0.000E+00	0.000E+00	6.277E-06
F	7.0	3.52	8000.	128.	24.	241.8	42.4	0.0	0.000E+00	0.000E+00	3.766E-06
F	10.3	1.55	8000.	128.	24.	241.8	42.4	0.0	0.000E+00	0.000E+00	2.545E-06
F	13.4	0.16	8000.	128.	24.	241.8	42.4	0.0	0.000E+00	0.000E+00	1.962E-06
F	30.7	0.01	8000.	128.	24.	241.8	42.4	0.0	0.000E+00	0.000E+00	8.560E-07
G	2.0	0.43	8000.	128.	24.	166.9	25.6	0.0	0.000E+00	0.000E+00	2.419E-05
G	4.2	1.17	8000.	128.	24.	166.9	25.6	0.0	0.000E+00	0.000E+00	1.129E-05
G	7.0	1.14	8000.	128.	24.	166.9	25.6	0.0	0.000E+00	0.000E+00	6.772E-06
G	10.3	0.31	8000.	128.	24.	166.9	25.6	0.0	0.000E+00	0.000E+00	4.576E-06
G	13.4	0.01	8000.	128.	24.	166.9	25.6	0.0	0.000E+00	0.000E+00	3.527E-06
G	30.7	0.00	8000.	128.	24.	166.9	25.6	0.0	0.000E+00	0.000E+00	1.539E-06

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 1003 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

DIRECTION-INDEPENDENT (S.R.P 2.3.4) MODEL.

MINIMUM BOUNDARY DISTANCE = 823.0 METERS.

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

9.416E-05	4.769E-05	3.519E-05	2.419E-05	1.345E-05	1.129E-05	6.812E-06	6.772E-06	6.759E-06	6.277E-06
0.012	0.026	0.030	0.464	1.474	2.647	4.614	5.750	5.796	8.938
0.01166	0.02566	0.03032	0.46417	1.47416	2.64742	4.61373	5.74967	5.79632	8.93823
5.038E-06	5.028E-06	4.576E-06	3.766E-06	3.527E-06	3.457E-06	3.179E-06	3.154E-06	2.545E-06	2.351E-06
9.015	11.082	11.390	14.907	14.916	14.923	23.820	24.291	25.844	26.609
9.01521	11.08182	11.38972	14.90716	14.91649	14.92349	23.81974	24.29091	25.84437	26.60944
2.346E-06	1.962E-06	1.907E-06	1.892E-06	1.613E-06	1.539E-06	1.411E-06	1.408E-06	1.289E-06	1.279E-06
36.000	36.161	50.007	50.550	51.064	51.068	52.398	68.117	77.643	78.084
36.00018	36.16113	50.00699	50.55047	51.06363	51.06829	52.39783	68.11671	77.64275	78.08360
9.935E-07	9.857E-07	9.679E-07	9.532E-07	9.512E-07	8.560E-07	7.348E-07	7.332E-07	6.540E-07	5.041E-07
79.378	79.499	80.031	81.074	93.303	93.315	93.618	97.859	98.136	98.195
79.37814	79.49944	80.03125	81.07389	93.30331	93.31498	93.61821	97.85874	98.13631	98.19463
4.335E-07	4.301E-07	3.206E-07	3.199E-07	2.200E-07					
98.423	98.458	98.584	99.972	100.000					
98.42321	98.45820	98.58415	99.97201	100.00000					

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 9.416E-05 DISTANCE = 8000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS

Calculation No. PM-1055 Revision 0

SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

Attachment J

Page 1004 of 1411

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2) = 8.935

1.960E-05	1.000	1.000
1.169E-05	3.000	3.000
8.893E-06	5.000	5.000
5.871E-06	10.000	10.000
4.524E-06	15.000	15.000
3.678E-06	20.000	20.000
3.104E-06	25.000	25.000
2.786E-06	30.000	30.000
2.521E-06	35.000	35.000
2.293E-06	40.000	40.000
2.092E-06	45.000	45.000
1.911E-06	50.000	50.000
1.797E-06	55.000	55.000
1.694E-06	60.000	60.000
1.594E-06	65.000	65.000
1.494E-06	70.000	70.000
1.394E-06	75.000	75.000
1.290E-06	80.000	80.000
1.178E-06	85.000	85.000
1.052E-06	90.000	90.000

8.893E-06	5.0	5.00
-----------	-----	------

K= 17 FIVEXQ(K)= 8.893E-06 FIVEPR(K)= 5.000

FUMIGATION X/Q AT THE BOUNDARY: 5.26E-05

EXPONENTIAL TERM AND FREQUENCIES

9.255E-01	8.474E-01	6.964E-01	6.365E-01	6.339E-01	5.677E-01	4.664E-01
1.416	10.823	46.594	50.238	53.303	98.342	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1005 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

FIVE PERCENT OVERALL SITE LIMIT

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.005E-04	6.739E-05	5.792E-05	5.074E-05	4.879E-05	4.285E-05	4.066E-05	3.800E-05	3.495E-05	3.255E-05
0.001	0.001	0.003	0.003	0.004	0.005	0.007	0.008	0.009	0.009
0.00059	0.00121	0.00267	0.00326	0.00388	0.00505	0.00707	0.00807	0.00864	0.00909
3.225E-05	3.141E-05	3.101E-05	2.921E-05	2.689E-05	2.604E-05	2.435E-05	2.419E-05	2.309E-05	2.267E-05
0.010	0.013	0.015	0.016	0.016	0.017	0.018	0.043	0.044	0.045
0.00995	0.01254	0.01543	0.01564	0.01625	0.01724	0.01772	0.04338	0.04369	0.04518
2.167E-05	2.094E-05	2.070E-05	2.048E-05	1.924E-05	1.831E-05	1.752E-05	1.667E-05	1.537E-05	1.504E-05
0.045	0.046	0.046	0.047	0.048	0.049	0.049	0.049	0.050	0.051
0.04549	0.04576	0.04603	0.04676	0.04759	0.04859	0.04873	0.04892	0.04981	0.05146
1.435E-05	1.394E-05	1.379E-05	1.172E-05	1.129E-05	9.634E-06	9.628E-06	8.984E-06	8.274E-06	7.248E-06
0.103	0.103	0.104	0.104	0.156	0.195	0.249	0.250	0.376	0.460
0.10277	0.10334	0.10398	0.10449	0.15581	0.19546	0.24911	0.24981	0.37577	0.45974
7.219E-06	6.969E-06	6.811E-06	6.772E-06	6.697E-06	6.348E-06	6.224E-06	6.182E-06	6.121E-06	5.809E-06
0.461	0.514	0.526	0.535	0.614	0.647	0.673	0.674	0.837	1.122
0.46055	0.51420	0.52586	0.53519	0.61449	0.64715	0.67281	0.67410	0.83738	1.12194
5.702E-06	5.429E-06	5.399E-06	4.993E-06	4.849E-06	4.845E-06	4.650E-06	4.617E-06	4.608E-06	4.496E-06
1.127	1.267	1.271	1.523	1.525	1.560	1.761	1.789	2.172	2.251
1.12661	1.26656	1.27123	1.52314	1.52547	1.56046	1.76106	1.78905	2.17158	2.25089
4.493E-06	4.487E-06	4.430E-06	4.315E-06	4.173E-06	4.048E-06	4.018E-06	3.861E-06	3.842E-06	3.720E-06
2.563	2.787	3.193	3.205	3.301	3.312	3.343	3.599	3.867	4.007
2.56344	2.78737	3.19323	3.20489	3.30052	3.31219	3.34251	3.59909	3.86733	4.00728
3.479E-06	3.459E-06	3.383E-06	3.298E-06	3.252E-06	3.238E-06	3.178E-06	3.095E-06	2.991E-06	2.962E-06
4.217	4.224	4.574	4.712	4.833	5.043	5.279	5.414	5.537	5.647
4.21721	4.22420	4.57408	4.71170	4.83299	5.04292	5.27850	5.41379	5.53741	5.64704
2.958E-06	2.926E-06	2.905E-06	2.857E-06	2.749E-06	2.715E-06	2.711E-06	2.697E-06	2.696E-06	2.661E-06
5.764	5.866	5.948	6.963	7.035	7.037	8.353	8.376	8.679	8.733

5.76367	5.86630	5.94794	6.96259	7.03490	7.03723	8.35277	8.37610	8.67933	8.73297
2.615E-06	2.534E-06	2.519E-06	2.503E-06	2.381E-06	2.351E-06	2.330E-06	2.317E-06	2.263E-06	2.261E-06
8.873	9.339	9.381	9.442	9.526	9.678	10.233	10.363	10.480	10.599
8.87292	9.33943	9.38142	9.44206	9.52603	9.67765	10.23279	10.36341	10.48003	10.59899
2.199E-06	2.195E-06	2.183E-06	2.170E-06	2.164E-06	2.156E-06	2.155E-06	2.151E-06	2.150E-06	2.149E-06
10.671	10.797	10.804	11.513	11.537	11.588	11.653	11.663	13.237	13.379
10.67130	10.79726	10.80426	11.51334	11.53667	11.58798	11.65329	11.66262	13.23708	13.37936
2.138E-06	2.134E-06	2.094E-06	2.067E-06	2.030E-06	2.014E-06	1.992E-06	1.970E-06	1.951E-06	1.947E-06
13.389	13.398	14.301	16.428	16.792	16.843	16.922	17.013	17.069	17.769
13.38869	13.39802	14.30071	16.42797	16.79185	16.84316	16.92247	17.01344	17.06942	17.76917
1.907E-06	1.902E-06	1.889E-06	1.823E-06	1.821E-06	1.816E-06	1.793E-06	1.777E-06	1.754E-06	1.743E-06
17.916	17.960	17.974	17.979	18.082	18.138	19.152	19.176	19.194	19.292
17.91612	17.96044	17.97443	17.97910	18.08173	18.13771	19.15236	19.17568	19.19435	19.29231
1.736E-06	1.714E-06	1.690E-06	1.675E-06	1.674E-06	1.628E-06	1.626E-06	1.623E-06	1.614E-06	1.600E-06
19.952	22.031	22.042	22.087	22.094	22.150	23.199	24.573	24.895	24.995
19.95242	22.03070	22.04236	22.08668	22.09368	22.14965	23.19929	24.57315	24.89503	24.99533
1.597E-06	1.587E-06	1.573E-06	1.565E-06	1.545E-06	1.539E-06	1.520E-06	1.512E-06	1.511E-06	1.444E-06
25.030	25.051	25.105	25.121	25.138	25.907	26.507	26.537	27.295	27.787
25.03032	25.05132	25.10496	25.12129	25.13762	25.90735	26.50681	26.53713	27.29520	27.78737
1.411E-06	1.398E-06	1.396E-06	1.380E-06	1.371E-06	1.365E-06	1.358E-06	1.357E-06	1.319E-06	1.319E-06
27.848	28.433	28.958	29.856	29.917	30.299	30.332	30.516	30.614	30.619
27.84801	28.43348	28.95830	29.85632	29.91696	30.29950	30.33215	30.51642	30.61439	30.61905
1.310E-06	1.302E-06	1.299E-06	1.294E-06	1.293E-06	1.291E-06	1.290E-06	1.289E-06	1.283E-06	1.283E-06
30.677	31.396	31.477	31.711	31.732	31.771	33.535	33.642	33.703	33.782
30.67737	31.39579	31.47742	31.71068	31.73167	31.77132	33.53471	33.64201	33.70265	33.78196
1.283E-06	1.280E-06	1.256E-06	1.240E-06	1.220E-06	1.208E-06	1.201E-06	1.178E-06	1.168E-06	1.168E-06
33.831	33.836	34.645	37.850	38.398	38.442	38.445	38.466	40.117	40.446
33.83094	33.83561	34.64500	37.84989	38.39803	38.44235	38.44468	38.46567	40.11710	40.44598
1.158E-06	1.141E-06	1.133E-06	1.111E-06	1.099E-06	1.089E-06	1.079E-06	1.076E-06	1.057E-06	1.053E-06
41.650	41.817	41.822	42.272	42.527	42.734	42.741	43.513	43.532	43.653
41.64957	41.81751	41.82217	42.27235	42.52660	42.73419	42.74119	43.51325	43.53191	43.65321
1.042E-06	1.031E-06	1.027E-06	1.024E-06	1.021E-06	1.014E-06	1.004E-06	1.003E-06	9.932E-07	9.741E-07
44.029	44.099	44.246	44.649	44.654	44.752	44.812	45.239	45.256	48.003
44.02874	44.09872	44.24567	44.64920	44.65386	44.75183	44.81247	45.23933	45.25565	48.00336
9.686E-07	9.599E-07	9.532E-07	9.520E-07	9.446E-07	9.439E-07	9.295E-07	9.268E-07	9.234E-07	9.196E-07
48.232	48.346	48.356	48.377	48.575	48.621	49.095	49.216	50.431	50.828
48.23195	48.34624	48.35557	48.37656	48.57483	48.62148	49.09498	49.21627	50.43151	50.82804
9.173E-07	9.166E-07	9.077E-07	9.067E-07	8.927E-07	8.915E-07	8.849E-07	8.832E-07	8.797E-07	8.775E-07
50.835	50.868	50.870	52.388	52.538	52.580	52.652	52.764	53.091	53.144
50.83504	50.86769	50.87003	52.38850	52.53778	52.57977	52.65207	52.76403	53.09059	53.14424

8.743E-07	8.735E-07	8.722E-07	8.717E-07	8.667E-07	8.666E-07	8.651E-07	8.488E-07	8.471E-07	8.380E-07
53.361	53.370	53.461	53.993	54.807	54.870	54.891	55.055	55.101	56.522
53.36116	53.37049	53.46146	53.99328	54.80733	54.87031	54.89130	55.05458	55.10123	56.52174
8.374E-07	8.316E-07	8.282E-07	8.192E-07	8.163E-07	7.977E-07	7.918E-07	7.894E-07	7.873E-07	7.816E-07
57.842	57.847	60.011	60.480	60.499	60.529	60.578	61.702	61.705	61.793
57.84195	57.84661	60.01119	60.48003	60.49869	60.52901	60.57800	61.70227	61.70461	61.79324
7.710E-07	7.696E-07	7.598E-07	7.361E-07	7.348E-07	7.323E-07	7.281E-07	7.269E-07	7.112E-07	7.071E-07
61.949	61.980	62.159	62.288	62.292	63.148	63.179	63.487	63.697	63.699
61.94952	61.97984	62.15945	62.28774	62.29240	63.14844	63.17876	63.48666	63.69658	63.69891
7.039E-07	7.009E-07	6.872E-07	6.853E-07	6.821E-07	6.785E-07	6.781E-07	6.764E-07	6.739E-07	6.723E-07
63.834	64.536	64.546	64.676	64.688	64.770	64.830	64.840	64.879	64.916
63.83420	64.53629	64.54562	64.67625	64.68791	64.76955	64.83020	64.83953	64.87918	64.91650
6.720E-07	6.680E-07	6.668E-07	6.667E-07	6.582E-07	6.545E-07	6.543E-07	6.486E-07	6.460E-07	6.433E-07
64.975	65.003	65.012	66.276	67.233	67.296	67.303	67.375	67.487	67.496
64.97481	65.00280	65.01213	66.27636	67.23270	67.29567	67.30267	67.37497	67.48693	67.49626
6.378E-07	6.316E-07	6.292E-07	6.262E-07	6.239E-07	6.147E-07	6.127E-07	6.085E-07	6.017E-07	5.990E-07
67.517	67.592	67.594	67.706	68.630	69.551	71.543	71.774	72.513	72.744
67.51726	67.59190	67.59423	67.70618	68.62987	69.55122	71.54319	71.77411	72.51352	72.74444
5.943E-07	5.856E-07	5.674E-07	5.658E-07	5.603E-07	5.596E-07	5.577E-07	5.535E-07	5.517E-07	5.482E-07
72.765	73.125	73.136	75.152	75.226	77.367	78.566	78.655	79.866	79.945
72.76543	73.12464	73.13631	75.15160	75.22624	77.36750	78.56642	78.65506	79.86564	79.94495
5.426E-07	5.282E-07	5.230E-07	5.073E-07	5.045E-07	4.999E-07	4.959E-07	4.948E-07	4.916E-07	4.827E-07
79.973	80.041	80.106	80.206	80.215	80.218	80.222	80.586	80.619	80.661
79.97294	80.04058	80.10589	80.20619	80.21552	80.21786	80.22252	80.58640	80.61905	80.66103
4.813E-07	4.810E-07	4.736E-07	4.723E-07	4.690E-07	4.613E-07	4.559E-07	4.514E-07	4.505E-07	4.435E-07
80.859	81.030	81.951	82.280	82.338	82.340	82.522	82.585	85.009	85.011
80.85929	81.02956	81.95091	82.27980	82.33811	82.34045	82.52238	82.58536	85.00885	85.01118
4.362E-07	4.313E-07	4.267E-07	4.153E-07	4.121E-07	4.066E-07	3.895E-07	3.814E-07	3.768E-07	3.762E-07
86.107	86.672	86.691	87.941	88.386	88.962	88.976	89.030	90.122	90.147
86.10747	86.67194	86.69060	87.94083	88.38634	88.96248	88.97647	89.03012	90.12174	90.14740
3.728E-07	3.723E-07	3.696E-07	3.651E-07	3.594E-07	3.473E-07	3.455E-07	3.201E-07	3.177E-07	3.169E-07
91.666	91.696	91.726	92.251	92.440	93.707	93.716	93.898	93.926	93.928
91.66587	91.69619	91.72652	92.25134	92.44027	93.70683	93.71616	93.89810	93.92609	93.92843
3.134E-07	3.080E-07	2.999E-07	2.977E-07	2.959E-07	2.947E-07	2.934E-07	2.932E-07	2.915E-07	2.905E-07
94.012	94.036	94.038	94.040	94.045	94.206	94.225	94.246	94.260	94.360
94.01240	94.03573	94.03806	94.04040	94.04506	94.20601	94.22467	94.24566	94.25965	94.35995
2.888E-07	2.874E-07	2.819E-07	2.746E-07	2.694E-07	2.655E-07	2.593E-07	2.476E-07	2.473E-07	2.445E-07
94.822	95.029	95.048	95.057	95.088	95.155	95.158	95.160	95.869	95.888
94.82178	95.02938	95.04803	95.05737	95.08768	95.15533	95.15766	95.16000	95.86909	95.88775

Calculation No. PM-1055 Revision 0

Attachment J

Page 1008 of 1411

2.428E-07	2.392E-07	2.368E-07	2.305E-07	2.294E-07	2.282E-07	2.234E-07	2.214E-07	2.201E-07	2.106E-07
95.897	95.962	96.009	96.039	96.084	96.098	96.102	96.147	96.151	96.175
95.89708	95.96239	96.00905	96.03937	96.08369	96.09768	96.10234	96.14666	96.15133	96.17465
2.099E-07	2.093E-07	2.061E-07	1.970E-07	1.951E-07	1.903E-07	1.882E-07	1.872E-07	1.862E-07	1.768E-07
96.210	96.284	96.315	96.331	96.723	97.089	97.236	97.238	97.241	97.506
96.20964	96.28428	96.31461	96.33093	96.72279	97.08900	97.23595	97.23828	97.24062	97.50652
1.755E-07	1.749E-07	1.671E-07	1.664E-07	1.593E-07	1.515E-07	1.504E-07	1.397E-07	1.376E-07	1.288E-07
97.616	97.625	97.910	97.926	98.136	98.565	98.621	98.642	98.654	98.666
97.61615	97.62548	97.91005	97.92638	98.13631	98.56549	98.62147	98.64246	98.65413	98.66579
1.267E-07	1.257E-07	1.254E-07	1.195E-07	1.053E-07	9.768E-08	9.210E-08	7.544E-08	7.117E-08	5.861E-08
98.689	98.782	98.796	98.948	98.985	99.286	99.293	99.454	99.456	99.869
98.68912	98.78242	98.79641	98.94802	98.98534	99.28624	99.29324	99.45418	99.45651	99.86937
5.097E-08	3.960E-08	3.929E-08	1.715E-08	1.332E-08					
99.960	99.993	99.995	99.998	100.000					
99.96033	99.99300	99.99533	99.99767	100.00000					

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 9.416E-05 DISTANCE = 8000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(2) =	0.007
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(3) =	0.015
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(5) =	0.045
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(6) =	0.049
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(7) =	0.103
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(8) =	0.375
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(9) =	0.614
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(13) =	3.864
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(14) =	5.275

ERROR IN SUBROUTINE ENVELOP

K	HIGHPR	PR	GRNDVT(K)
1	-3.26367	0.05500	6.21119
2	-3.27329	0.05316	3.52599
3	-2.59407	0.47424	3.10868
4	-2.66257	0.38773	3.53145

5	-2.93953	0.16436	4.76778
6	-2.77623	0.27497	4.27759
7	-2.79525	0.25930	5.37148
8	-2.92583	0.17177	5.07527
9	-2.57624	0.49942	10.00153
10	-2.90756	0.18214	5.86355
11	-2.91093	0.18018	4.96796
12	-3.29591	0.04906	4.95848
13	-3.53989	0.02002	7.82046
14	-3.35865	0.03917	8.73919
15	-3.64106	0.01358	10.97840
16	-3.42944	0.03025	10.80101

K	HOURS (K)	TOTHR
1	4.81776	4.81776
2	4.65641	9.47417
3	41.54328	51.01745
4	33.96551	84.98296
5	14.39792	99.38088
6	24.08721	123.46810
7	22.71503	146.18310
8	15.04746	161.23060
9	43.74879	204.97940
10	15.95545	220.93480
11	15.78419	236.71900
12	4.29771	241.01670
13	1.75386	242.77060
14	3.43096	246.20160
15	1.18943	247.39100
16	2.64984	250.04080

K	FIVEXQ	SVANN	SLTIME	TIMINT	I	TIME	XQT
1	2.288E-06	3.759E-09	-0.7646	-12.4576	1	8.0	-14.04764
					2	16.0	-14.57764
					3	72.0	-15.72771
					4	624.0	-17.37892
2	2.185E-06	4.503E-09	-0.7376	-12.5228	1	8.0	-14.05652
					2	16.0	-14.56775
					3	72.0	-15.67709
					4	624.0	-17.26983
3	5.339E-06	5.044E-09	-0.8306	-11.5648	1	8.0	-13.29195
					2	16.0	-13.86767
					3	72.0	-15.11693
					4	624.0	-16.91056
4	4.878E-06	1.022E-08	-0.7356	-11.7209	1	8.0	-13.25043
					2	16.0	-13.76029
					3	72.0	-14.86664
					4	624.0	-16.45509
5	3.489E-06	1.635E-08	-0.6396	-12.1226			

					1	8.0	-13.45257
					2	16.0	-13.89589
					3	72.0	-14.85785
					4	624.0	-16.23900
6	4.193E-06	1.043E-08	-0.7152	-11.8863	1	8.0	-13.37345
					2	16.0	-13.86916
					3	72.0	-14.94481
					4	624.0	-16.48919
7	3.932E-06	4.911E-09	-0.7973	-11.8936	1	8.0	-13.55156
					2	16.0	-14.10421
					3	72.0	-15.30342
					4	624.0	-17.02519
8	3.328E-06	8.886E-10	-0.9813	-11.9330	1	8.0	-13.97352
					2	16.0	-14.65370
					3	72.0	-16.12963
					4	624.0	-18.24871
9	5.505E-06	2.533E-09	-0.9164	-11.4747	1	8.0	-13.38022
					2	16.0	-14.01540
					3	72.0	-15.39369
					4	624.0	-17.37258
10	3.449E-06	1.412E-09	-0.9304	-11.9324	1	8.0	-13.86706
					2	16.0	-14.51195
					3	72.0	-15.91131
					4	624.0	-17.92045
11	3.420E-06	1.161E-09	-0.9527	-11.9254	1	8.0	-13.90652
					2	16.0	-14.56688
					3	72.0	-15.99983
					4	624.0	-18.05718
12	1.974E-06	1.177E-09	-0.8855	-12.5215	1	8.0	-14.36291
					2	16.0	-14.97669
					3	72.0	-16.30857
					4	624.0	-18.22080
13	1.478E-06	2.853E-09	-0.7454	-12.9078	1	8.0	-14.45788
					2	16.0	-14.97457
					3	72.0	-16.09575
					4	624.0	-17.70549
14	1.794E-06	1.874E-09	-0.8186	-12.6636	1	8.0	-14.36595
					2	16.0	-14.93339
					3	72.0	-16.16468
					4	624.0	-17.93253
15	1.260E-06	8.258E-10	-0.8742	-12.9784	1	8.0	-14.79627
					2	16.0	-15.40222
					3	72.0	-16.71710

Calculation No. PM-1055 Revision 0**Attachment J****Page 1011 of 1411**

16	2.015E-06	6.157E-09	-0.6906	-12.6364	4	624.0	-18.60493
					1	8.0	-14.07242
					2	16.0	-14.55111
					3	72.0	-15.58983
					4	624.0	-17.08117
17	8.893E-06	1.635E-08	-0.7512	-11.1095	1	8.0	-12.67154
					2	16.0	-13.19221
					3	72.0	-14.32202
					4	624.0	-15.94416

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 1012 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1 96.3 meters

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

RELATIVE CONCENTRATION (X/Q) VALUES (SEC/CUBIC METER)

VERSUS

AVERAGING TIME

HOURS PER YEAR MAX

0-2 HR X/Q IS

EXCEEDED

DOWNWIND

DOWNWIND DISTANCE SECTOR (METERS)	0-2 HOURS	0-8 HOURS	8-24 HOURS	1-4 DAYS	4-30 DAYS	ANNUAL AVERAGE	IN SECTOR	DOWNWIND SECTOR
S 823.	2.29E-06	7.93E-07	4.67E-07	1.48E-07	2.83E-08	3.76E-09	4.8	S
SSW 823.	2.18E-06	7.86E-07	4.71E-07	1.55E-07	3.16E-08	4.50E-09	4.7	SSW
SW 823.	5.34E-06	1.69E-06	9.49E-07	2.72E-07	4.53E-08	5.04E-09	41.5	SW
WSW 823.	4.88E-06	1.76E-06	1.06E-06	3.50E-07	7.14E-08	1.02E-08	34.0	WSW
W 823.	3.49E-06	1.44E-06	9.23E-07	3.53E-07	8.86E-08	1.64E-08	14.4	W
WNW 823.	4.19E-06	1.56E-06	9.48E-07	3.23E-07	6.90E-08	1.04E-08	24.1	WNW
NW 823.	3.93E-06	1.30E-06	7.49E-07	2.26E-07	4.04E-08	4.91E-09	22.7	NW
NNW 823.	3.33E-06	8.54E-07	4.32E-07	9.89E-08	1.19E-08	8.89E-10	15.0	NNW
N 823.	5.50E-06	1.55E-06	8.19E-07	2.06E-07	2.85E-08	2.53E-09	43.7	N
NNE 823.	3.45E-06	9.50E-07	4.98E-07	1.23E-07	1.65E-08	1.41E-09	16.0	NNE
NE 823.	3.42E-06	9.13E-07	4.72E-07	1.13E-07	1.44E-08	1.16E-09	15.8	NE
ENE 823.	1.97E-06	5.78E-07	3.13E-07	8.27E-08	1.22E-08	1.18E-09	4.3	ENE
E 823.	1.48E-06	5.26E-07	3.14E-07	1.02E-07	2.04E-08	2.85E-09	1.8	E
ESE 823.	1.79E-06	5.77E-07	3.27E-07	9.54E-08	1.63E-08	1.87E-09	3.4	ESE
SE 823.	1.26E-06	3.75E-07	2.05E-07	5.49E-08	8.32E-09	8.26E-10	1.2	SE
SSE 823.	2.01E-06	7.73E-07	4.79E-07	1.70E-07	3.82E-08	6.16E-09	2.6	SSE
MAX X/Q	5.50E-06					TOTAL HOURS AROUND SITE:	250.0	
SRP 2.3.4 823.	8.89E-06	3.14E-06	1.87E-06	6.03E-07	1.19E-07	1.64E-08		
SITE LIMIT	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.64E-08		

0.5 PERCENT X/Q TO AN INDIVIDUAL IS LIMITING.

X/Q VALUES (SEC/CUBIC METER) FOR FUMIGATION AT THE BOUNDARY:

DOWNWIND DISTANCE FUMIGATION

SECTOR (METERS)	X/Q
S 823.	5.30E-05
SSW 823.	4.79E-05
SW 823.	4.58E-05
WSW 823.	5.01E-05
W 823.	5.30E-05
WNW 823.	5.30E-05
NW 823.	5.01E-05
NNW 823.	4.22E-05
N 823.	4.22E-05
NNE 823.	4.22E-05
NE 823.	4.22E-05
ENE 823.	4.22E-05
E 823.	4.22E-05

Calculation No. PM-1055 Revision 0**Attachment J****Page 1013 of 1411**

ESE	823.	4.22E-05
SE	823.	4.22E-05
SSE	823.	5.30E-05

****NOTE**:** VALUES ON THIS PAGE ARE APPROXIMATIONS ONLY.
CHECK THE REASONABLENESS OF THE ENVELOPES
COMPUTED FOR THE 0-2 HOUR VALUES. FOR ANY
FAULTY ENVELOPES, ADJUST THE ABOVE VALUES.

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1014 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE S SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)
CLASS	METER/SEC	PERCENT	METERS	METERS			METERS		METERS	METERS	METERS	MEANDER BLDG WAKE USED
AT 152.4 METERS												
CA=1292.SQ.METERS												
A	3.7	0.23	7300.	55.			97.		1000.0	1000.0	0.0	0.000E+00 0.000E+00 8.451E-08
A	9.2	0.08	7300.	55.			97.		1000.0	1000.0	0.0	0.000E+00 0.000E+00 3.426E-08
A	12.0	0.08	7300.	55.			97.		1000.0	1000.0	0.0	0.000E+00 0.000E+00 2.641E-08
B	3.7	0.49	7300.	55.			97.		848.1	962.0	0.0	0.000E+00 0.000E+00 1.035E-07
B	6.2	0.15	7300.	55.			97.		848.1	962.0	0.0	0.000E+00 0.000E+00 6.212E-08
B	9.2	0.38	7300.	55.			97.		848.1	962.0	0.0	0.000E+00 0.000E+00 4.197E-08
B	12.0	0.04	7300.	55.			97.		848.1	962.0	0.0	0.000E+00 0.000E+00 3.235E-08
C	3.7	1.16	7300.	55.			97.		644.0	373.7	0.0	0.000E+00 0.000E+00 3.410E-07
C	6.2	1.58	7300.	55.			97.		644.0	373.7	0.0	0.000E+00 0.000E+00 2.046E-07
C	9.2	0.68	7300.	55.			97.		644.0	373.7	0.0	0.000E+00 0.000E+00 1.382E-07
C	12.0	0.15	7300.	55.			97.		644.0	373.7	0.0	0.000E+00 0.000E+00 1.066E-07
C	27.5	0.04	7300.	55.			97.		644.0	373.7	0.0	0.000E+00 0.000E+00 4.650E-08
D	0.2	0.01	7300.	55.			97.		453.5	111.1	0.0	0.000E+00 0.000E+00 1.721E-05
D	1.7	2.22	7300.	55.			97.		453.5	111.1	0.0	0.000E+00 0.000E+00 2.459E-06
D	3.7	12.39	7300.	55.			97.		453.5	111.1	0.0	0.000E+00 0.000E+00 1.147E-06
D	6.2	19.57	7300.	55.			97.		453.5	111.1	0.0	0.000E+00 0.000E+00 6.885E-07
D	9.2	14.87	7300.	55.			97.		453.5	111.1	0.0	0.000E+00 0.000E+00 4.652E-07
D	12.0	2.74	7300.	55.			97.		453.5	111.1	0.0	0.000E+00 0.000E+00 3.586E-07
D	27.5	0.56	7300.	55.			97.		453.5	111.1	0.0	0.000E+00 0.000E+00 1.565E-07
E	0.3	0.02	7300.	55.			97.		322.5	67.5	0.0	0.000E+00 0.000E+00 1.847E-05
E	2.0	2.25	7300.	55.			97.		322.5	67.5	0.0	0.000E+00 0.000E+00 2.638E-06
E	4.2	8.83	7300.	55.			97.		322.5	67.5	0.0	0.000E+00 0.000E+00 1.231E-06
E	7.0	13.78	7300.	55.			97.		322.5	67.5	0.0	0.000E+00 0.000E+00 7.387E-07
E	10.3	5.86	7300.	55.			97.		322.5	67.5	0.0	0.000E+00 0.000E+00 4.991E-07
E	13.4	0.86	7300.	55.			97.		322.5	67.5	0.0	0.000E+00 0.000E+00 3.847E-07
E	30.7	0.26	7300.	55.			97.		322.5	67.5	0.0	0.000E+00 0.000E+00 1.679E-07
F	0.3	0.01	10000.	55.			97.		295.8	46.1	0.0	0.000E+00 0.000E+00 8.984E-06
F	2.0	0.98	10000.	55.			97.		295.8	46.1	0.0	0.000E+00 0.000E+00 1.283E-06
F	4.2	3.72	10000.	55.			97.		295.8	46.1	0.0	0.000E+00 0.000E+00 5.990E-07
F	7.0	3.04	10000.	55.			97.		295.8	46.1	0.0	0.000E+00 0.000E+00 3.594E-07
F	10.3	0.15	10000.	55.			97.		295.8	46.1	0.0	0.000E+00 0.000E+00 2.428E-07
F	13.4	0.04	10000.	55.			97.		295.8	46.1	0.0	0.000E+00 0.000E+00 1.872E-07
G	2.0	0.41	90000.	55.			97.		1000.0	46.0	0.0	0.000E+00 0.000E+00 3.762E-07

Calculation No. PM-1055 Revision 0

Attachment J

G	4.2	1.77	90000.	55.	97.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.755E-07
G	7.0	0.60	90000.	55.	97.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.053E-07
G	10.3	0.04	90000.	55.	97.	1000.0	46.0	0.0	0.000E+00	0.000E+00	7.117E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1016 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1 96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

S SECTOR BOUNDARY DISTANCE = 7300.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.847E-05	1.721E-05	8.984E-06	2.638E-06	2.459E-06	1.283E-06	1.231E-06	1.147E-06	7.387E-07	6.885E-07
0.016	0.021	0.032	2.286	4.501	5.478	14.303	26.695	40.478	60.043
0.00100	0.00131	0.00201	0.14196	0.27958	0.34022	0.88837	1.65810	2.51414	3.72938
5.990E-07	4.991E-07	4.652E-07	3.847E-07	3.762E-07	3.594E-07	3.586E-07	3.410E-07	2.428E-07	2.046E-07
63.761	69.619	84.490	85.354	85.767	88.809	91.550	92.715	92.865	94.442
3.96030	4.32418	5.24786	5.30150	5.32716	5.51610	5.68637	5.75868	5.76801	5.86597
1.872E-07	1.755E-07	1.679E-07	1.565E-07	1.382E-07	1.066E-07	1.053E-07	1.035E-07	8.451E-08	7.117E-08
94.480	96.245	96.507	97.071	97.747	97.897	98.498	98.986	99.211	99.249
5.86831	5.97793	5.99426	6.02925	6.07124	6.08057	6.11789	6.14821	6.16220	6.16454
6.212E-08	4.650E-08	4.197E-08	3.426E-08	3.235E-08	2.641E-08				
99.399	99.437	99.812	99.887	99.925	100.000				
6.17387	6.17620	6.19952	6.20419	6.20652	6.21119				

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 2.309E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.001
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 1.656

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4) = 3.726
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5) = 5.244
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(6) = 5.683
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(7) = 5.755
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(8) = 6.025
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(9) = 6.067

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
1	1	-10.89955	-15.82119	-1.15376
1	2	-10.96991	-16.45962	-1.30560
1	3	-13.67796	-16.81287	-1.47140
1	4	-14.18878	-18.51104	-2.42362
1	5	-14.58082	-25.22925	-6.56649
1	6	-14.84111	-27.47623	-7.98684
1	7	-14.89145	-68.14889	-33.79942
1	8	-15.67039	-70.59866	-35.37723
1	9	-15.79431	NUMXQ(K) = 9	
		4.816E-06	0.062	1.000
		3.137E-06	0.186	3.000
		2.532E-06	0.311	5.000
		1.860E-06	0.621	10.000
		1.535E-06	0.932	15.000
		1.331E-06	1.242	20.000
		1.187E-06	1.553	25.000
		1.070E-06	1.863	30.000
		9.745E-07	2.174	35.000
		8.968E-07	2.484	40.000
		8.322E-07	2.795	45.000
		7.774E-07	3.106	50.000
		7.301E-07	3.416	55.000
		6.888E-07	3.727	60.000
		6.300E-07	4.037	65.000
		5.792E-07	4.348	70.000
		5.350E-07	4.658	75.000
		4.962E-07	4.969	80.000
		4.563E-07	5.280	85.000
		3.791E-07	5.590	90.000
		2.053E-06	0.5	8.05

ANNUAL AVERAGE = 2.22E-08

K= 1 FIVEXQ(K)= 2.053E-06 FIVEPR(K)= 8.050

FUMIGATION X/Q AT THE BOUNDARY: 9.20E-06

EXPONENTIAL TERM AND FREQUENCIES

9.953E-01	9.949E-01	9.666E-01	6.810E-01	3.527E-01	1.076E-01	1.064E-01
0.376	1.427	5.032	57.387	89.248	97.183	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1018 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE SSW SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 152.4 METERS												CA=1292.SQ.METERS		
A	3.7	0.60	7300.	61.	91.	1000.0	1000.0	0.0	0.000E+00	0.000E+00	8.455E-08			
A	6.2	0.60	7300.	61.	91.	1000.0	1000.0	0.0	0.000E+00	0.000E+00	5.073E-08			
A	9.2	0.26	7300.	61.	91.	1000.0	1000.0	0.0	0.000E+00	0.000E+00	3.428E-08			
A	12.0	0.13	7300.	61.	91.	1000.0	1000.0	0.0	0.000E+00	0.000E+00	2.642E-08			
B	1.7	0.13	7300.	61.	91.	848.1	962.0	0.0	0.000E+00	0.000E+00	2.220E-07			
B	3.7	1.52	7300.	61.	91.	848.1	962.0	0.0	0.000E+00	0.000E+00	1.036E-07			
B	6.2	0.99	7300.	61.	91.	848.1	962.0	0.0	0.000E+00	0.000E+00	6.216E-08			
B	9.2	0.20	7300.	61.	91.	848.1	962.0	0.0	0.000E+00	0.000E+00	4.200E-08			
B	12.0	0.13	7300.	61.	91.	848.1	962.0	0.0	0.000E+00	0.000E+00	3.237E-08			
C	1.7	0.33	7300.	61.	91.	644.0	373.7	0.0	0.000E+00	0.000E+00	7.336E-07			
C	3.7	1.46	7300.	61.	91.	644.0	373.7	0.0	0.000E+00	0.000E+00	3.424E-07			
C	6.2	1.26	7300.	61.	91.	644.0	373.7	0.0	0.000E+00	0.000E+00	2.054E-07			
C	9.2	0.53	7300.	61.	91.	644.0	373.7	0.0	0.000E+00	0.000E+00	1.388E-07			
C	12.0	0.07	7300.	61.	91.	644.0	373.7	0.0	0.000E+00	0.000E+00	1.070E-07			
C	27.5	0.26	7300.	61.	91.	644.0	373.7	0.0	0.000E+00	0.000E+00	4.669E-08			
D	0.2	0.01	7300.	61.	91.	453.5	111.1	0.0	0.000E+00	0.000E+00	1.802E-05			
D	1.7	3.84	7300.	61.	91.	453.5	111.1	0.0	0.000E+00	0.000E+00	2.574E-06			
D	3.7	13.96	7300.	61.	91.	453.5	111.1	0.0	0.000E+00	0.000E+00	1.201E-06			
D	6.2	23.09	7300.	61.	91.	453.5	111.1	0.0	0.000E+00	0.000E+00	7.208E-07			
D	9.2	10.19	7300.	61.	91.	453.5	111.1	0.0	0.000E+00	0.000E+00	4.870E-07			
D	12.0	1.79	7300.	61.	91.	453.5	111.1	0.0	0.000E+00	0.000E+00	3.754E-07			
D	27.5	0.46	7300.	61.	91.	453.5	111.1	0.0	0.000E+00	0.000E+00	1.638E-07			
E	0.3	0.02	7300.	61.	91.	322.5	67.5	0.0	0.000E+00	0.000E+00	2.091E-05			
E	2.0	2.91	7300.	61.	91.	322.5	67.5	0.0	0.000E+00	0.000E+00	2.988E-06			
E	4.2	10.85	7300.	61.	91.	322.5	67.5	0.0	0.000E+00	0.000E+00	1.394E-06			
E	7.0	13.30	7300.	61.	91.	322.5	67.5	0.0	0.000E+00	0.000E+00	8.365E-07			
E	10.3	2.51	7300.	61.	91.	322.5	67.5	0.0	0.000E+00	0.000E+00	5.652E-07			
E	13.4	0.53	7300.	61.	91.	322.5	67.5	0.0	0.000E+00	0.000E+00	4.357E-07			
E	30.7	0.07	7300.	61.	91.	322.5	67.5	0.0	0.000E+00	0.000E+00	1.901E-07			
F	0.3	0.01	10000.	61.	91.	295.8	46.1	0.0	0.000E+00	0.000E+00	1.172E-05			
F	2.0	1.26	10000.	61.	91.	295.8	46.1	0.0	0.000E+00	0.000E+00	1.675E-06			
F	4.2	2.51	10000.	61.	91.	295.8	46.1	0.0	0.000E+00	0.000E+00	7.816E-07			
F	7.0	1.65	10000.	61.	91.	295.8	46.1	0.0	0.000E+00	0.000E+00	4.690E-07			
F	10.3	0.07	10000.	61.	91.	295.8	46.1	0.0	0.000E+00	0.000E+00	3.169E-07			

G	2.0	0.93	90000.	61.	91.	1000.0	46.0	0.0	0.000E+00	0.000E+00	4.916E-07
G	4.2	1.26	90000.	61.	91.	1000.0	46.0	0.0	0.000E+00	0.000E+00	2.294E-07
G	7.0	0.33	90000.	61.	91.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.376E-07

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1020 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

LOW POPULATION ZONE CALCULATIONS:

SSW SECTOR BOUNDARY DISTANCE = 7300.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

2.091E-05	1.802E-05	1.172E-05	2.988E-06	2.574E-06	1.675E-06	1.394E-06	1.201E-06	8.365E-07	7.816E-07
0.021	0.029	0.044	2.955	6.791	8.048	18.897	32.855	46.152	48.666
0.00073	0.00104	0.00155	0.10418	0.23947	0.28378	0.66632	1.15848	1.62732	1.71595
7.336E-07	7.208E-07	5.652E-07	4.916E-07	4.870E-07	4.690E-07	4.357E-07	3.754E-07	3.424E-07	3.169E-07
48.997	72.084	74.598	75.524	85.711	87.365	87.894	89.680	91.136	91.202
1.72762	2.54167	2.63030	2.66296	3.02217	3.08048	3.09914	3.16212	3.21343	3.21577
2.294E-07	2.220E-07	2.054E-07	1.901E-07	1.638E-07	1.388E-07	1.376E-07	1.070E-07	1.036E-07	8.455E-08
92.459	92.591	93.848	93.914	94.377	94.906	95.237	95.303	96.825	97.420
3.26008	3.26475	3.30907	3.31140	3.32773	3.34639	3.35805	3.36038	3.41403	3.43502
6.216E-08	5.073E-08	4.669E-08	4.200E-08	3.428E-08	3.237E-08	2.642E-08			
98.412	99.008	99.272	99.471	99.735	99.868	100.000			
3.47001	3.49100	3.50033	3.50733	3.51666	3.52133	3.52599			

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 2.167E-05 DISTANCE = 5000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.239
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 1.157

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 2.539
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 3.078
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(6)= 3.210
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(7)= 3.306

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
2	1	-10.77512	-16.77557	-1.38437
2	2	-12.86995	-16.77819	-1.38530
2	3	-13.63209	-17.28309	-1.60761
2	4	-14.14291	-24.16113	-5.12883
2	5	-14.57272	-45.88583	-16.74935
2	6	-14.88739	-86.94085	-38.93256
2	7	-15.39822	NUMXQ(K)= 7	
		5.640E-06	0.035	1.000
		3.652E-06	0.106	3.000
		2.944E-06	0.176	5.000
		2.161E-06	0.353	10.000
		1.785E-06	0.529	15.000
		1.550E-06	0.705	20.000
		1.385E-06	0.881	25.000
		1.260E-06	1.058	30.000
		1.155E-06	1.234	35.000
		1.063E-06	1.410	40.000
		9.860E-07	1.587	45.000
		9.210E-07	1.763	50.000
		8.652E-07	1.939	55.000
		8.165E-07	2.116	60.000
		7.736E-07	2.292	65.000
		7.355E-07	2.468	70.000
		6.604E-07	2.644	75.000
		5.720E-07	2.821	80.000
		4.991E-07	2.997	85.000
		3.760E-07	3.173	90.000
		1.833E-06	0.5	14.18

ANNUAL AVERAGE = 1.57E-08

K= 2 FIVEXQ(K)= 1.833E-06 FIVEPR(K)=14.180

FUMIGATION X/Q AT THE BOUNDARY: 9.80E-06

EXPONENTIAL TERM AND FREQUENCIES

9.958E-01	9.955E-01	9.705E-01	7.130E-01	3.995E-01	1.404E-01	1.390E-01
1.588	4.565	8.467	61.795	91.981	97.486	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 1022 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE SW SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 152.4 METERS												CA=1292.SQ.METERS		
A	3.7	1.73	7300.	128.	24.	1000.0	1000.0	0.0	0.000E+00	0.000E+00	8.488E-08			
A	6.2	1.50	7300.	128.	24.	1000.0	1000.0	0.0	0.000E+00	0.000E+00	5.093E-08			
A	9.2	0.68	7300.	128.	24.	1000.0	1000.0	0.0	0.000E+00	0.000E+00	3.441E-08			
B	1.7	0.15	7300.	128.	24.	848.1	962.0	0.0	0.000E+00	0.000E+00	2.229E-07			
B	3.7	1.35	7300.	128.	24.	848.1	962.0	0.0	0.000E+00	0.000E+00	1.040E-07			
B	6.2	0.98	7300.	128.	24.	848.1	962.0	0.0	0.000E+00	0.000E+00	6.242E-08			
B	9.2	0.15	7300.	128.	24.	848.1	962.0	0.0	0.000E+00	0.000E+00	4.217E-08			
B	12.0	0.08	7300.	128.	24.	848.1	962.0	0.0	0.000E+00	0.000E+00	3.251E-08			
C	1.7	0.90	7300.	128.	24.	644.0	373.7	0.0	0.000E+00	0.000E+00	7.543E-07			
C	3.7	2.10	7300.	128.	24.	644.0	373.7	0.0	0.000E+00	0.000E+00	3.520E-07			
C	6.2	0.68	7300.	128.	24.	644.0	373.7	0.0	0.000E+00	0.000E+00	2.112E-07			
C	9.2	0.30	7300.	128.	24.	644.0	373.7	0.0	0.000E+00	0.000E+00	1.427E-07			
D	0.2	0.02	7300.	128.	24.	453.5	111.1	0.0	0.000E+00	0.000E+00	2.467E-05			
D	1.7	8.10	7300.	128.	24.	453.5	111.1	0.0	0.000E+00	0.000E+00	3.524E-06			
D	3.7	17.86	7300.	128.	24.	453.5	111.1	0.0	0.000E+00	0.000E+00	1.645E-06			
D	6.2	18.83	7300.	128.	24.	453.5	111.1	0.0	0.000E+00	0.000E+00	9.869E-07			
D	9.2	6.38	7300.	128.	24.	453.5	111.1	0.0	0.000E+00	0.000E+00	6.668E-07			
D	12.0	0.98	7300.	128.	24.	453.5	111.1	0.0	0.000E+00	0.000E+00	5.140E-07			
D	27.5	0.90	7300.	128.	24.	453.5	111.1	0.0	0.000E+00	0.000E+00	2.243E-07			
E	0.3	0.02	7300.	128.	24.	322.5	67.5	0.0	0.000E+00	0.000E+00	4.904E-05			
E	2.0	2.70	7300.	128.	24.	322.5	67.5	0.0	0.000E+00	0.000E+00	7.006E-06			
E	4.2	11.25	7300.	128.	24.	322.5	67.5	0.0	0.000E+00	0.000E+00	3.269E-06			
E	7.0	11.71	7300.	128.	24.	322.5	67.5	0.0	0.000E+00	0.000E+00	1.962E-06			
E	10.3	1.95	7300.	128.	24.	322.5	67.5	0.0	0.000E+00	0.000E+00	1.325E-06			
E	13.4	0.60	7300.	128.	24.	322.5	67.5	0.0	0.000E+00	0.000E+00	1.022E-06			
E	30.7	0.08	7300.	128.	24.	322.5	67.5	0.0	0.000E+00	0.000E+00	4.458E-07			
F	0.3	0.02	7300.	128.	24.	222.6	40.9	0.0	0.000E+00	0.000E+00	1.047E-04			
F	2.0	1.65	7300.	128.	24.	222.6	40.9	0.0	0.000E+00	0.000E+00	1.496E-05			
F	4.2	2.55	7300.	128.	24.	222.6	40.9	0.0	0.000E+00	0.000E+00	6.980E-06			
F	7.0	0.98	7300.	128.	24.	222.6	40.9	0.0	0.000E+00	0.000E+00	4.188E-06			
F	10.3	0.08	7300.	128.	24.	222.6	40.9	0.0	0.000E+00	0.000E+00	2.830E-06			
G	2.0	0.83	7300.	128.	24.	153.6	24.8	0.0	0.000E+00	0.000E+00	2.632E-05			
G	4.2	1.65	7300.	128.	24.	153.6	24.8	0.0	0.000E+00	0.000E+00	1.228E-05			

G	7.0	0.30	7300.	128.	24.	153.6	24.8	0.0	0.000E+00	0.000E+00	7.370E-06
---	-----	------	-------	------	-----	-------	------	-----	-----------	-----------	-----------

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1024 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

SW SECTOR BOUNDARY DISTANCE = 7300.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.047E-04	4.904E-05	2.632E-05	2.467E-05	1.496E-05	1.228E-05	7.370E-06	7.006E-06	6.980E-06	4.188E-06
0.019	0.038	0.864	0.882	2.533	4.183	4.484	7.185	9.736	10.711
0.00059	0.00119	0.02685	0.02742	0.07873	0.13005	0.13938	0.22335	0.30265	0.33298
3.524E-06	3.269E-06	2.830E-06	1.962E-06	1.645E-06	1.325E-06	1.022E-06	9.869E-07	7.543E-07	6.668E-07
18.815	30.070	30.145	41.850	59.708	61.658	62.259	81.092	81.992	88.370
0.58489	0.93477	0.93710	1.30098	1.85612	1.91676	1.93542	2.52089	2.54888	2.74714
5.140E-07	4.458E-07	3.520E-07	2.243E-07	2.229E-07	2.112E-07	1.427E-07	1.040E-07	8.488E-08	6.242E-08
89.345	89.420	91.521	92.422	92.572	93.247	93.547	94.898	96.624	97.599
2.77746	2.77980	2.84511	2.87310	2.87776	2.89875	2.90808	2.95007	3.00372	3.03404
5.093E-08	4.217E-08	3.441E-08	3.251E-08						
99.100	99.250	99.925	100.000						
3.08069	3.08536	3.10635	3.10868						

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.047E-04 DISTANCE = 7300.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.027
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 0.130

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (4) = 0.934
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (5) = 1.854
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (6) = 2.518
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (7) = 2.744

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
3	1	-9.16439	-15.74975	-1.50343
3	2	-10.54519	-16.40644	-1.69313
3	3	-11.30733	-17.35012	-2.00647
3	4	-12.63094	-18.67963	-2.57174
3	5	-13.31792	-21.63665	-3.99007
3	6	-13.82874	-34.51833	-10.57300
3	7	-14.22079	NUMXQ(K) = 7	
		2.461E-05	0.031	1.000
		1.454E-05	0.093	3.000
		1.101E-05	0.155	5.000
		7.071E-06	0.311	10.000
		5.380E-06	0.466	15.000
		4.400E-06	0.622	20.000
		3.747E-06	0.777	25.000
		3.275E-06	0.933	30.000
		2.823E-06	1.088	35.000
		2.476E-06	1.243	40.000
		2.200E-06	1.399	45.000
		1.977E-06	1.554	50.000
		1.792E-06	1.710	55.000
		1.632E-06	1.865	60.000
		1.431E-06	2.021	65.000
		1.265E-06	2.176	70.000
		1.127E-06	2.332	75.000
		1.010E-06	2.487	80.000
		7.967E-07	2.642	85.000
		5.127E-06	0.5	16.08

ANNUAL AVERAGE = 3.32E-08

K= 3 FIVEXQ(K)= 5.127E-06 FIVEPR(K)=16.084

FUMIGATION X/Q AT THE BOUNDARY: 1.75E-05

EXPONENTIAL TERM AND FREQUENCIES

9.997E-01	9.997E-01	9.979E-01	9.762E-01	9.367E-01	8.371E-01	6.165E-01
3.902	6.603	10.580	63.646	91.952	97.224	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 1026 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE WSW SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)			
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG	WAKE	USED
AT 152.4 METERS												CA=1292.SQ.METERS			
A	3.7	2.58	7300.	104.	48.		1000.0	1000.0	0.0	0.000E+00	0.000E+00	8.481E-08			
A	6.2	1.92	7300.	104.	48.		1000.0	1000.0	0.0	0.000E+00	0.000E+00	5.088E-08			
A	9.2	1.19	7300.	104.	48.		1000.0	1000.0	0.0	0.000E+00	0.000E+00	3.438E-08			
A	12.0	0.07	7300.	104.	48.		1000.0	1000.0	0.0	0.000E+00	0.000E+00	2.650E-08			
B	1.7	0.59	7300.	104.	48.		848.1	962.0	0.0	0.000E+00	0.000E+00	2.227E-07			
B	3.7	1.65	7300.	104.	48.		848.1	962.0	0.0	0.000E+00	0.000E+00	1.039E-07			
B	6.2	0.99	7300.	104.	48.		848.1	962.0	0.0	0.000E+00	0.000E+00	6.236E-08			
B	9.2	0.07	7300.	104.	48.		848.1	962.0	0.0	0.000E+00	0.000E+00	4.213E-08			
C	1.7	0.99	7300.	104.	48.		644.0	373.7	0.0	0.000E+00	0.000E+00	7.496E-07			
C	3.7	2.44	7300.	104.	48.		644.0	373.7	0.0	0.000E+00	0.000E+00	3.498E-07			
C	6.2	1.12	7300.	104.	48.		644.0	373.7	0.0	0.000E+00	0.000E+00	2.099E-07			
C	9.2	0.20	7300.	104.	48.		644.0	373.7	0.0	0.000E+00	0.000E+00	1.418E-07			
D	0.2	0.02	7300.	104.	48.		453.5	111.1	0.0	0.000E+00	0.000E+00	2.299E-05			
D	1.7	7.86	7300.	104.	48.		453.5	111.1	0.0	0.000E+00	0.000E+00	3.284E-06			
D	3.7	22.19	7300.	104.	48.		453.5	111.1	0.0	0.000E+00	0.000E+00	1.532E-06			
D	6.2	18.36	7300.	104.	48.		453.5	111.1	0.0	0.000E+00	0.000E+00	9.194E-07			
D	9.2	4.43	7300.	104.	48.		453.5	111.1	0.0	0.000E+00	0.000E+00	6.212E-07			
D	12.0	0.73	7300.	104.	48.		453.5	111.1	0.0	0.000E+00	0.000E+00	4.789E-07			
D	27.5	0.13	7300.	104.	48.		453.5	111.1	0.0	0.000E+00	0.000E+00	2.090E-07			
E	0.3	0.03	7300.	104.	48.		322.5	67.5	0.0	0.000E+00	0.000E+00	4.048E-05			
E	2.0	4.03	7300.	104.	48.		322.5	67.5	0.0	0.000E+00	0.000E+00	5.782E-06			
E	4.2	14.46	7300.	104.	48.		322.5	67.5	0.0	0.000E+00	0.000E+00	2.698E-06			
E	7.0	6.67	7300.	104.	48.		322.5	67.5	0.0	0.000E+00	0.000E+00	1.619E-06			
E	10.3	0.73	7300.	104.	48.		322.5	67.5	0.0	0.000E+00	0.000E+00	1.094E-06			
E	13.4	0.26	7300.	104.	48.		322.5	67.5	0.0	0.000E+00	0.000E+00	8.432E-07			
E	30.7	0.07	7300.	104.	48.		322.5	67.5	0.0	0.000E+00	0.000E+00	3.680E-07			
F	0.3	0.02	7300.	104.	48.		222.6	40.9	0.0	0.000E+00	0.000E+00	6.213E-05			
F	2.0	1.72	7300.	104.	48.		222.6	40.9	0.0	0.000E+00	0.000E+00	8.875E-06			
F	4.2	1.92	7300.	104.	48.		222.6	40.9	0.0	0.000E+00	0.000E+00	4.142E-06			
F	7.0	0.53	7300.	104.	48.		222.6	40.9	0.0	0.000E+00	0.000E+00	2.485E-06			
G	2.0	0.66	7300.	104.	48.		153.6	24.8	0.0	0.000E+00	0.000E+00	6.365E-06			
G	4.2	1.25	7300.	104.	48.		153.6	24.8	0.0	0.000E+00	0.000E+00	2.970E-06			
G	7.0	0.13	7300.	104.	48.		153.6	24.8	0.0	0.000E+00	0.000E+00	1.782E-06			

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 1027 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN; 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

WSW SECTOR BOUNDARY DISTANCE = 7300.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.
THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.
THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

6.213E-05	4.048E-05	2.299E-05	8.875E-06	6.365E-06	5.782E-06	4.142E-06	3.284E-06	2.970E-06	2.698E-06
0.020	0.049	0.066	1.784	2.444	6.473	8.389	16.249	17.503	31.968
0.00070	0.00171	0.00234	0.06299	0.08631	0.22859	0.29624	0.57381	0.61813	1.12895
2.485E-06	1.782E-06	1.619E-06	1.532E-06	1.094E-06	9.194E-07	8.432E-07	7.496E-07	6.212E-07	4.789E-07
32.497	32.629	39.300	61.493	62.219	80.581	80.845	81.836	86.262	86.988
1.14761	1.15227	1.38786	2.17159	2.19725	2.84569	2.85502	2.89000	3.04628	3.07194
3.680E-07	3.498E-07	2.227E-07	2.099E-07	2.090E-07	1.418E-07	1.039E-07	8.481E-08	6.236E-08	5.088E-08
87.054	89.498	90.092	91.215	91.347	91.546	93.197	95.773	96.764	98.679
3.07427	3.16058	3.18157	3.22122	3.22589	3.23289	3.29120	3.38217	3.41716	3.48480
4.213E-08	3.438E-08	2.650E-08							
98.745	99.934	100.000							
3.48713	3.52912	3.53145							

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 6.213E-05 DISTANCE = 7300.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 1.128
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 2.169

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 2.843
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 3.043
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(6)= 3.158

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
4	1	-9.68635	-16.29107	-1.52053
4	2	-12.82285	-17.76848	-2.16825
4	3	-13.38867	-22.31663	-4.41985
4	4	-13.89949	-38.83336	-13.09280
4	5	-14.29154	-80.18877	-35.15546
4	6	-14.86587	NUMXQ(K) = 6	
		1.451E-05	0.035	1.000
		9.003E-06	0.106	3.000
		7.104E-06	0.177	5.000
		5.059E-06	0.353	10.000
		4.101E-06	0.530	15.000
		3.513E-06	0.706	20.000
		3.105E-06	0.883	25.000
		2.799E-06	1.059	30.000
		2.503E-06	1.236	35.000
		2.236E-06	1.413	40.000
		2.021E-06	1.589	45.000
		1.843E-06	1.766	50.000
		1.694E-06	1.942	55.000
		1.567E-06	2.119	60.000
		1.382E-06	2.295	65.000
		1.203E-06	2.472	70.000
		1.055E-06	2.649	75.000
		9.324E-07	2.825	80.000
		6.765E-07	3.002	85.000
		4.228E-06	0.5	14.16

ANNUAL AVERAGE = 3.18E-08

K= 4 FIVEXQ(K)= 4.228E-06 FIVEPR(K)=14.158

FUMIGATION X/Q AT THE BOUNDARY: 1.75E-05

EXPONENTIAL TERM AND FREQUENCIES

9.988E-01	9.987E-01	9.916E-01	9.095E-01	7.731E-01	4.967E-01	1.491E-01
5.746	9.049	13.804	67.521	93.771	97.952	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 1029 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE W SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 152.4 METERS												CA=1292.SQ.METERS		
A	1.7	0.15	7300.	73.	79.	1000.0	1000.0	0.0	0.000E+00	0.000E+00	1.814E-07			
A	3.7	4.26	7300.	73.	79.	1000.0	1000.0	0.0	0.000E+00	0.000E+00	8.464E-08			
A	6.2	2.25	7300.	73.	79.	1000.0	1000.0	0.0	0.000E+00	0.000E+00	5.078E-08			
A	9.2	0.34	7300.	73.	79.	1000.0	1000.0	0.0	0.000E+00	0.000E+00	3.431E-08			
B	1.7	0.24	7300.	73.	79.	848.1	962.0	0.0	0.000E+00	0.000E+00	2.222E-07			
B	3.7	2.74	7300.	73.	79.	848.1	962.0	0.0	0.000E+00	0.000E+00	1.037E-07			
B	6.2	0.59	7300.	73.	79.	848.1	962.0	0.0	0.000E+00	0.000E+00	6.223E-08			
B	9.2	0.05	7300.	73.	79.	848.1	962.0	0.0	0.000E+00	0.000E+00	4.204E-08			
C	1.7	0.05	7300.	73.	79.	644.0	373.7	0.0	0.000E+00	0.000E+00	7.390E-07			
C	3.7	2.45	7300.	73.	79.	644.0	373.7	0.0	0.000E+00	0.000E+00	3.449E-07			
C	6.2	0.68	7300.	73.	79.	644.0	373.7	0.0	0.000E+00	0.000E+00	2.069E-07			
C	9.2	0.15	7300.	73.	79.	644.0	373.7	0.0	0.000E+00	0.000E+00	1.398E-07			
C	12.0	0.05	7300.	73.	79.	644.0	373.7	0.0	0.000E+00	0.000E+00	1.078E-07			
D	0.2	0.01	7300.	73.	79.	453.5	111.1	0.0	0.000E+00	0.000E+00	1.958E-05			
D	1.7	5.63	7300.	73.	79.	453.5	111.1	0.0	0.000E+00	0.000E+00	2.797E-06			
D	3.7	21.28	7300.	73.	79.	453.5	111.1	0.0	0.000E+00	0.000E+00	1.305E-06			
D	6.2	16.19	7300.	73.	79.	453.5	111.1	0.0	0.000E+00	0.000E+00	7.832E-07			
D	9.2	6.46	7300.	73.	79.	453.5	111.1	0.0	0.000E+00	0.000E+00	5.292E-07			
D	12.0	1.57	7300.	73.	79.	453.5	111.1	0.0	0.000E+00	0.000E+00	4.079E-07			
D	27.5	0.39	7300.	73.	79.	453.5	111.1	0.0	0.000E+00	0.000E+00	1.780E-07			
E	0.3	0.02	7300.	73.	79.	322.5	67.5	0.0	0.000E+00	0.000E+00	2.619E-05			
E	2.0	2.94	7300.	73.	79.	322.5	67.5	0.0	0.000E+00	0.000E+00	3.742E-06			
E	4.2	13.85	7300.	73.	79.	322.5	67.5	0.0	0.000E+00	0.000E+00	1.746E-06			
E	7.0	7.88	7300.	73.	79.	322.5	67.5	0.0	0.000E+00	0.000E+00	1.048E-06			
E	10.3	2.84	7300.	73.	79.	322.5	67.5	0.0	0.000E+00	0.000E+00	7.079E-07			
E	13.4	0.59	7300.	73.	79.	322.5	67.5	0.0	0.000E+00	0.000E+00	5.457E-07			
E	30.7	0.98	7300.	73.	79.	322.5	67.5	0.0	0.000E+00	0.000E+00	2.381E-07			
F	0.3	0.02	8000.	73.	79.	241.8	42.4	0.0	0.000E+00	0.000E+00	1.924E-05			
F	2.0	1.52	8000.	73.	79.	241.8	42.4	0.0	0.000E+00	0.000E+00	2.749E-06			
F	4.2	1.66	8000.	73.	79.	241.8	42.4	0.0	0.000E+00	0.000E+00	1.283E-06			
F	7.0	0.64	8000.	73.	79.	241.8	42.4	0.0	0.000E+00	0.000E+00	7.696E-07			
F	30.7	0.20	8000.	73.	79.	241.8	42.4	0.0	0.000E+00	0.000E+00	1.749E-07			
G	2.0	0.64	90000.	73.	79.	1000.0	46.0	0.0	0.000E+00	0.000E+00	7.977E-07			

G	4.2	0.64	90000.	73.	79.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.723E-07
G	7.0	0.10	90000.	73.	79.	1000.0	46.0	0.0	0.000E+00	0.000E+00	2.234E-07

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1031 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1 96.3 meters

LOW POPULATION ZONE CALCULATIONS:

W SECTOR BOUNDARY DISTANCE = 7300.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

2.619E-05	1.958E-05	1.924E-05	3.742E-06	2.797E-06	2.749E-06	1.746E-06	1.305E-06	1.283E-06	1.048E-06
0.021	0.034	0.051	2.986	8.613	10.129	23.974	45.256	46.919	54.796
0.00100	0.00160	0.00244	0.14239	0.41063	0.48294	1.14304	2.15769	2.23700	2.61253
7.977E-07	7.832E-07	7.696E-07	7.390E-07	7.079E-07	5.457E-07	5.292E-07	4.079E-07	3.723E-07	3.449E-07
55.431	71.625	72.261	72.310	75.147	75.734	82.192	83.758	84.394	86.840
2.64285	3.41492	3.44524	3.44758	3.58286	3.61085	3.91875	3.99339	4.02371	4.14034
2.381E-07	2.234E-07	2.222E-07	2.069E-07	1.814E-07	1.780E-07	1.749E-07	1.398E-07	1.078E-07	1.037E-07
87.818	87.916	88.161	88.846	88.992	89.384	89.579	89.726	89.775	92.515
4.18699	4.19165	4.20331	4.23597	4.24297	4.26163	4.27096	4.27795	4.28029	4.41091
8.464E-08	6.223E-08	5.078E-08	4.204E-08	3.431E-08					
96.771	97.358	99.609	99.658	100.000					
4.61384	4.64183	4.74912	4.75146	4.76778					

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 2.689E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 2.235
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 3.412

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 3.442
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 3.580
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(6)= 3.915
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(7)= 4.137
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(8)= 4.610

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
5	1	-10.54998	-16.24821	-1.33582
5	2	-13.56652	-18.94721	-2.68026
5	3	-14.05992	-22.02190	-4.36646
5	4	-14.07734	-22.63882	-4.70553
5	5	-14.16090	-26.91823	-7.08075
5	6	-14.45196	-43.92416	-16.73999
5	7	-14.88005	-62.54497	-27.47235
5	8	-16.28485	NUMXQ(K)= 8	
		7.250E-06	0.048	1.000
		4.719E-06	0.143	3.000
		3.811E-06	0.238	5.000
		2.803E-06	0.477	10.000
		2.316E-06	0.715	15.000
		2.012E-06	0.954	20.000
		1.798E-06	1.192	25.000
		1.635E-06	1.430	30.000
		1.507E-06	1.669	35.000
		1.401E-06	1.907	40.000
		1.313E-06	2.146	45.000
		1.194E-06	2.384	50.000
		1.070E-06	2.622	55.000
		9.670E-07	2.861	60.000
		8.798E-07	3.099	65.000
		8.052E-07	3.337	70.000
		7.109E-07	3.576	75.000
		5.780E-07	3.814	80.000
		4.076E-07	4.053	85.000
		2.176E-07	4.291	90.000
		2.742E-06	0.5	10.49

ANNUAL AVERAGE = 2.73E-08

K= 5 FIVEXQ(K)= 2.742E-06 FIVEPR(K)=10.487

FUMIGATION X/Q AT THE BOUNDARY: 1.13E-05

EXPONENTIAL TERM AND FREQUENCIES

9.969E-01	9.966E-01	9.777E-01	7.747E-01	5.003E-01	2.255E-01	1.732E-01
6.996	10.616	13.992	65.520	94.601	95.971	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1033 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1 96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE WNW SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN HT	EFF PLUME HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 152.4 METERS						CA=1292.SQ.METERS					
A	3.7	2.40	7300.	98.	54.	1000.0	1000.0	0.0	0.000E+00	0.000E+00	8.478E-08
A	6.2	2.40	7300.	98.	54.	1000.0	1000.0	0.0	0.000E+00	0.000E+00	5.087E-08
A	9.2	0.16	7300.	98.	54.	1000.0	1000.0	0.0	0.000E+00	0.000E+00	3.437E-08
A	12.0	0.05	7300.	98.	54.	1000.0	1000.0	0.0	0.000E+00	0.000E+00	2.649E-08
A	27.5	0.05	7300.	98.	54.	1000.0	1000.0	0.0	0.000E+00	0.000E+00	1.156E-08
B	3.7	1.58	7300.	98.	54.	848.1	962.0	0.0	0.000E+00	0.000E+00	1.039E-07
B	6.2	1.36	7300.	98.	54.	848.1	962.0	0.0	0.000E+00	0.000E+00	6.234E-08
B	9.2	0.11	7300.	98.	54.	848.1	962.0	0.0	0.000E+00	0.000E+00	4.212E-08
B	12.0	0.05	7300.	98.	54.	848.1	962.0	0.0	0.000E+00	0.000E+00	3.247E-08
C	3.7	3.54	7300.	98.	54.	644.0	373.7	0.0	0.000E+00	0.000E+00	3.490E-07
C	6.2	1.42	7300.	98.	54.	644.0	373.7	0.0	0.000E+00	0.000E+00	2.094E-07
C	9.2	0.22	7300.	98.	54.	644.0	373.7	0.0	0.000E+00	0.000E+00	1.415E-07
C	12.0	0.11	7300.	98.	54.	644.0	373.7	0.0	0.000E+00	0.000E+00	1.091E-07
D	0.2	0.01	7300.	98.	54.	453.5	111.1	0.0	0.000E+00	0.000E+00	2.242E-05
D	1.7	4.69	7300.	98.	54.	453.5	111.1	0.0	0.000E+00	0.000E+00	3.203E-06
D	3.7	16.58	7300.	98.	54.	453.5	111.1	0.0	0.000E+00	0.000E+00	1.495E-06
D	6.2	16.79	7300.	98.	54.	453.5	111.1	0.0	0.000E+00	0.000E+00	8.968E-07
D	9.2	7.63	7300.	98.	54.	453.5	111.1	0.0	0.000E+00	0.000E+00	6.059E-07
D	12.0	1.42	7300.	98.	54.	453.5	111.1	0.0	0.000E+00	0.000E+00	4.671E-07
D	27.5	0.11	7300.	98.	54.	453.5	111.1	0.0	0.000E+00	0.000E+00	2.038E-07
E	0.3	0.02	7300.	98.	54.	322.5	67.5	0.0	0.000E+00	0.000E+00	3.782E-05
E	2.0	3.27	7300.	98.	54.	322.5	67.5	0.0	0.000E+00	0.000E+00	5.403E-06
E	4.2	10.91	7300.	98.	54.	322.5	67.5	0.0	0.000E+00	0.000E+00	2.522E-06
E	7.0	14.01	7300.	98.	54.	322.5	67.5	0.0	0.000E+00	0.000E+00	1.513E-06
E	10.3	3.44	7300.	98.	54.	322.5	67.5	0.0	0.000E+00	0.000E+00	1.022E-06
E	13.4	1.15	7300.	98.	54.	322.5	67.5	0.0	0.000E+00	0.000E+00	7.880E-07
E	30.7	0.22	7300.	98.	54.	322.5	67.5	0.0	0.000E+00	0.000E+00	3.439E-07
F	0.3	0.01	7300.	98.	54.	222.6	40.9	0.0	0.000E+00	0.000E+00	5.167E-05
F	2.0	1.25	7300.	98.	54.	222.6	40.9	0.0	0.000E+00	0.000E+00	7.382E-06
F	4.2	2.84	7300.	98.	54.	222.6	40.9	0.0	0.000E+00	0.000E+00	3.445E-06
F	7.0	1.31	7300.	98.	54.	222.6	40.9	0.0	0.000E+00	0.000E+00	2.067E-06
F	10.3	0.11	7300.	98.	54.	222.6	40.9	0.0	0.000E+00	0.000E+00	1.397E-06
F	30.7	0.05	7300.	98.	54.	222.6	40.9	0.0	0.000E+00	0.000E+00	4.697E-07

Calculation No. PM-1055 Revision 0**Attachment J****Page 1034 of 1411**

G	2.0	0.27	10000.	98.	54.	204.1	27.4	0.0	0.000E+00	0.000E+00	4.048E-06
G	4.2	0.33	10000.	98.	54.	204.1	27.4	0.0	0.000E+00	0.000E+00	1.889E-06
G	7.0	0.11	10000.	98.	54.	204.1	27.4	0.0	0.000E+00	0.000E+00	1.133E-06

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1035 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

WNW SECTOR BOUNDARY DISTANCE = 7300.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

5.167E-05	3.782E-05	2.242E-05	7.382E-06	5.403E-06	4.048E-06	3.445E-06	3.203E-06	2.522E-06	2.067E-06
0.014	0.038	0.048	1.303	4.574	4.847	7.682	12.372	23.278	24.586
0.00062	0.00162	0.00207	0.05572	0.19567	0.20733	0.32862	0.52922	0.99572	1.05170
1.889E-06	1.513E-06	1.495E-06	1.397E-06	1.133E-06	1.022E-06	8.968E-07	7.880E-07	6.059E-07	4.697E-07
24.914	38.928	55.504	55.613	55.722	59.158	75.953	77.098	84.732	84.786
1.06570	1.66516	2.37425	2.37891	2.38358	2.53052	3.24894	3.29793	3.62448	3.62681
4.671E-07	3.490E-07	3.439E-07	2.094E-07	2.038E-07	1.415E-07	1.091E-07	1.039E-07	8.478E-08	6.234E-08
86.204	89.749	89.967	91.384	91.493	91.712	91.821	93.402	95.801	97.164
3.68746	3.83907	3.84840	3.90905	3.91371	3.92304	3.92771	3.99535	4.09798	4.15629
5.087E-08	4.212E-08	3.437E-08	3.247E-08	2.649E-08	1.156E-08				
99.564	99.673	99.836	99.891	99.945	100.000				
4.25893	4.26359	4.27059	4.27292	4.27525	4.27759				

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 5.167E-05 DISTANCE = 7300.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.002
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 0.995

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4) = 2.372
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5) = 3.246
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(6) = 3.621
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(7) = 3.845

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
6	1	-9.87061	-16.24075	-1.45752
6	2	-10.18256	-16.33973	-1.48133
6	3	-12.89061	-16.41027	-1.51163
6	4	-13.41364	-20.82871	-3.74048
6	5	-13.92447	-28.57796	-7.93876
6	6	-14.31651	-51.34930	-20.61463
6	7	-14.88304	NUMXQ(K) = 7	
		1.119E-05	0.043	1.000
		6.980E-06	0.128	3.000
		5.520E-06	0.214	5.000
		3.940E-06	0.428	10.000
		3.198E-06	0.642	15.000
		2.741E-06	0.856	20.000
		2.421E-06	1.069	25.000
		2.179E-06	1.283	30.000
		1.989E-06	1.497	35.000
		1.834E-06	1.711	40.000
		1.706E-06	1.925	45.000
		1.597E-06	2.139	50.000
		1.503E-06	2.353	55.000
		1.320E-06	2.567	60.000
		1.160E-06	2.780	65.000
		1.027E-06	2.994	70.000
		9.159E-07	3.208	75.000
		7.452E-07	3.422	80.000
		5.882E-07	3.636	85.000
		3.640E-06	0.5	11.69

ANNUAL AVERAGE = 3.07E-08

K= 6 FIVEXQ(K) = 3.640E-06 FIVEPR(K) = 11.689

FUMIGATION X/Q AT THE BOUNDARY: 1.65E-05

EXPONENTIAL TERM AND FREQUENCIES

9.985E-01	9.984E-01	9.895E-01	8.871E-01	7.225E-01	4.131E-01	1.391E-01
5.071	8.179	13.469	60.701	93.715	99.291	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1037 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft. wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE NW SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 152.4 METERS												CA=1292.SQ.METERS		
A	3.7	0.17	7300.	104.	48.	1000.0	1000.0	0.0	0.000E+00	0.000E+00	8.481E-08			
A	6.2	0.87	7300.	104.	48.	1000.0	1000.0	0.0	0.000E+00	0.000E+00	5.088E-08			
A	9.2	0.56	7300.	104.	48.	1000.0	1000.0	0.0	0.000E+00	0.000E+00	3.438E-08			
B	1.7	0.09	7300.	104.	48.	848.1	962.0	0.0	0.000E+00	0.000E+00	2.227E-07			
B	3.7	0.43	7300.	104.	48.	848.1	962.0	0.0	0.000E+00	0.000E+00	1.039E-07			
B	6.2	1.17	7300.	104.	48.	848.1	962.0	0.0	0.000E+00	0.000E+00	6.236E-08			
B	9.2	0.35	7300.	104.	48.	848.1	962.0	0.0	0.000E+00	0.000E+00	4.213E-08			
B	12.0	0.04	7300.	104.	48.	848.1	962.0	0.0	0.000E+00	0.000E+00	3.248E-08			
C	3.7	0.61	7300.	104.	48.	644.0	373.7	0.0	0.000E+00	0.000E+00	3.498E-07			
C	6.2	2.69	7300.	104.	48.	644.0	373.7	0.0	0.000E+00	0.000E+00	2.099E-07			
C	9.2	0.48	7300.	104.	48.	644.0	373.7	0.0	0.000E+00	0.000E+00	1.418E-07			
D	0.2	0.00	7300.	104.	48.	453.5	111.1	0.0	0.000E+00	0.000E+00	2.299E-05			
D	1.7	1.95	7300.	104.	48.	453.5	111.1	0.0	0.000E+00	0.000E+00	3.284E-06			
D	3.7	14.72	7300.	104.	48.	453.5	111.1	0.0	0.000E+00	0.000E+00	1.532E-06			
D	6.2	20.76	7300.	104.	48.	453.5	111.1	0.0	0.000E+00	0.000E+00	9.194E-07			
D	9.2	6.99	7300.	104.	48.	453.5	111.1	0.0	0.000E+00	0.000E+00	6.212E-07			
D	12.0	0.61	7300.	104.	48.	453.5	111.1	0.0	0.000E+00	0.000E+00	4.789E-07			
D	27.5	0.30	7300.	104.	48.	453.5	111.1	0.0	0.000E+00	0.000E+00	2.090E-07			
E	0.3	0.02	7300.	104.	48.	322.5	67.5	0.0	0.000E+00	0.000E+00	4.048E-05			
E	2.0	2.65	7300.	104.	48.	322.5	67.5	0.0	0.000E+00	0.000E+00	5.782E-06			
E	4.2	14.98	7300.	104.	48.	322.5	67.5	0.0	0.000E+00	0.000E+00	2.698E-06			
E	7.0	15.16	7300.	104.	48.	322.5	67.5	0.0	0.000E+00	0.000E+00	1.619E-06			
E	10.3	4.26	7300.	104.	48.	322.5	67.5	0.0	0.000E+00	0.000E+00	1.094E-06			
E	13.4	0.69	7300.	104.	48.	322.5	67.5	0.0	0.000E+00	0.000E+00	8.432E-07			
E	30.7	0.52	7300.	104.	48.	322.5	67.5	0.0	0.000E+00	0.000E+00	3.680E-07			
F	0.3	0.01	7300.	104.	48.	222.6	40.9	0.0	0.000E+00	0.000E+00	6.213E-05			
F	2.0	1.22	7300.	104.	48.	222.6	40.9	0.0	0.000E+00	0.000E+00	8.875E-06			
F	4.2	3.52	7300.	104.	48.	222.6	40.9	0.0	0.000E+00	0.000E+00	4.142E-06			
F	7.0	2.08	7300.	104.	48.	222.6	40.9	0.0	0.000E+00	0.000E+00	2.485E-06			
F	10.3	0.30	7300.	104.	48.	222.6	40.9	0.0	0.000E+00	0.000E+00	1.679E-06			
G	2.0	0.17	7300.	104.	48.	153.6	24.8	0.0	0.000E+00	0.000E+00	6.365E-06			
G	4.2	1.22	7300.	104.	48.	153.6	24.8	0.0	0.000E+00	0.000E+00	2.970E-06			
G	7.0	0.35	7300.	104.	48.	153.6	24.8	0.0	0.000E+00	0.000E+00	1.782E-06			

G	10.3	0.04	7300.	104.	48.	153.6	24.8	0.0	0.000E+00	0.000E+00	1.204E-06
---	------	------	-------	------	-----	-------	------	-----	-----------	-----------	-----------

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1039 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

NW SECTOR BOUNDARY DISTANCE = 7300.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

6.213E-05	4.048E-05	2.299E-05	8.875E-06	6.365E-06	5.782E-06	4.142E-06	3.284E-06	2.970E-06	2.698E-06
0.014	0.033	0.037	1.253	1.427	4.076	7.593	9.547	10.763	25.744
0.00075	0.00177	0.00200	0.06731	0.07664	0.21893	0.40786	0.51283	0.57814	1.38286
2.485E-06	1.782E-06	1.679E-06	1.619E-06	1.532E-06	1.204E-06	1.094E-06	9.194E-07	8.432E-07	6.212E-07
27.829	28.176	28.480	43.635	58.356	58.400	62.655	83.412	84.107	91.098
1.49482	1.51348	1.52981	2.34386	3.13458	3.13692	3.36550	4.48045	4.51777	4.89331
4.789E-07	3.680E-07	3.498E-07	2.227E-07	2.099E-07	2.090E-07	1.418E-07	1.039E-07	8.481E-08	6.236E-08
91.706	92.227	92.835	92.922	95.614	95.918	96.396	96.830	97.004	98.176
4.92596	4.95395	4.98661	4.99127	5.13589	5.15222	5.17788	5.20120	5.21053	5.27351
5.088E-08	4.213E-08	3.438E-08	3.248E-08						
99.045	99.392	99.957	100.000						
5.32016	5.33882	5.36914	5.37148						

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 6.213E-05 DISTANCE = 7300.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (2) = 1.381

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (3) = 3.132

Calculation No. PM-1055 Revision 0

Attachment J

Page 1040 of 1411

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 4.477
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 4.890

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
7	1	-9.68635	-16.07408	-1.47611
7	2	-12.82285	-16.47997	-1.66039
7	3	-13.38867	-19.18956	-3.11577
7	4	-13.89949	-29.67638	-9.29234
7	5	-14.29154	NUMXQ(K)= 5	
		1.305E-05	0.054	1.000
		8.085E-06	0.161	3.000
		6.368E-06	0.269	5.000
		4.516E-06	0.537	10.000
		3.648E-06	0.806	15.000
		3.115E-06	1.074	20.000
		2.744E-06	1.343	25.000
		2.440E-06	1.611	30.000
		2.200E-06	1.880	35.000
		2.007E-06	2.149	40.000
		1.849E-06	2.417	45.000
		1.715E-06	2.686	50.000
		1.601E-06	2.954	55.000
		1.474E-06	3.223	60.000
		1.318E-06	3.491	65.000
		1.186E-06	3.760	70.000
		1.074E-06	4.029	75.000
		9.778E-07	4.297	80.000
		8.460E-07	4.566	85.000
		6.559E-07	4.834	90.000
		4.684E-06	0.5	9.31

ANNUAL AVERAGE = 3.95E-08

K= 7 FIVEXQ(K)= 4.684E-06 FIVEPR(K)= 9.308

FUMIGATION X/Q AT THE BOUNDARY: 1.75E-05

EXPONENTIAL TERM AND FREQUENCIES

9.988E-01	9.987E-01	9.916E-01	9.095E-01	7.731E-01	4.967E-01	1.491E-01
1.607	3.691	7.469	52.808	91.084	98.220	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1041 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met. data, 320 ft. wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE NNW SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 152.4 METERS												CA=1292.SQ.METERS		
A	3.7	0.09	7300.	85.	67.	1000.0	1000.0	0.0	0.000E+00	0.000E+00	8.471E-08			
A	6.2	0.09	7300.	85.	67.	1000.0	1000.0	0.0	0.000E+00	0.000E+00	5.083E-08			
B	3.7	0.14	7300.	85.	67.	848.1	962.0	0.0	0.000E+00	0.000E+00	1.038E-07			
B	6.2	0.37	7300.	85.	67.	848.1	962.0	0.0	0.000E+00	0.000E+00	6.228E-08			
B	9.2	0.37	7300.	85.	67.	848.1	962.0	0.0	0.000E+00	0.000E+00	4.208E-08			
B	12.0	0.05	7300.	85.	67.	848.1	962.0	0.0	0.000E+00	0.000E+00	3.244E-08			
C	3.7	0.55	7300.	85.	67.	644.0	373.7	0.0	0.000E+00	0.000E+00	3.471E-07			
C	6.2	1.01	7300.	85.	67.	644.0	373.7	0.0	0.000E+00	0.000E+00	2.082E-07			
C	9.2	0.46	7300.	85.	67.	644.0	373.7	0.0	0.000E+00	0.000E+00	1.407E-07			
C	12.0	0.05	7300.	85.	67.	644.0	373.7	0.0	0.000E+00	0.000E+00	1.085E-07			
D	0.2	0.00	7300.	85.	67.	453.5	111.1	0.0	0.000E+00	0.000E+00	2.103E-05			
D	1.7	1.61	7300.	85.	67.	453.5	111.1	0.0	0.000E+00	0.000E+00	3.004E-06			
D	3.7	11.17	7300.	85.	67.	453.5	111.1	0.0	0.000E+00	0.000E+00	1.402E-06			
D	6.2	21.42	7300.	85.	67.	453.5	111.1	0.0	0.000E+00	0.000E+00	8.411E-07			
D	9.2	5.42	7300.	85.	67.	453.5	111.1	0.0	0.000E+00	0.000E+00	5.683E-07			
D	12.0	0.51	7300.	85.	67.	453.5	111.1	0.0	0.000E+00	0.000E+00	4.381E-07			
D	27.5	0.32	7300.	85.	67.	453.5	111.1	0.0	0.000E+00	0.000E+00	1.912E-07			
E	0.3	0.02	7300.	85.	67.	322.5	67.5	0.0	0.000E+00	0.000E+00	3.179E-05			
E	2.0	2.71	7300.	85.	67.	322.5	67.5	0.0	0.000E+00	0.000E+00	4.541E-06			
E	4.2	14.29	7300.	85.	67.	322.5	67.5	0.0	0.000E+00	0.000E+00	2.119E-06			
E	7.0	20.36	7300.	85.	67.	322.5	67.5	0.0	0.000E+00	0.000E+00	1.271E-06			
E	10.3	7.58	7300.	85.	67.	322.5	67.5	0.0	0.000E+00	0.000E+00	8.591E-07			
E	13.4	0.51	7300.	85.	67.	322.5	67.5	0.0	0.000E+00	0.000E+00	6.622E-07			
E	30.7	0.09	7300.	85.	67.	322.5	67.5	0.0	0.000E+00	0.000E+00	2.890E-07			
F	0.3	0.02	7300.	85.	67.	222.6	40.9	0.0	0.000E+00	0.000E+00	3.220E-05			
F	2.0	1.47	7300.	85.	67.	222.6	40.9	0.0	0.000E+00	0.000E+00	4.600E-06			
F	4.2	4.14	7300.	85.	67.	222.6	40.9	0.0	0.000E+00	0.000E+00	2.146E-06			
F	7.0	3.63	7300.	85.	67.	222.6	40.9	0.0	0.000E+00	0.000E+00	1.288E-06			
F	10.3	0.37	7300.	85.	67.	222.6	40.9	0.0	0.000E+00	0.000E+00	8.702E-07			
G	2.0	0.41	20000.	85.	67.	381.8	33.2	0.0	0.000E+00	0.000E+00	1.628E-06			
G	4.2	0.46	20000.	85.	67.	381.8	33.2	0.0	0.000E+00	0.000E+00	7.598E-07			
G	7.0	0.28	20000.	85.	67.	381.8	33.2	0.0	0.000E+00	0.000E+00	4.559E-07			
G	10.3	0.05	20000.	85.	67.	381.8	33.2	0.0	0.000E+00	0.000E+00	3.080E-07			

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1042 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

NNW SECTOR BOUNDARY DISTANCE = 7300.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

3.220E-05	3.179E-05	2.103E-05	4.600E-06	4.541E-06	3.004E-06	2.146E-06	2.119E-06	1.628E-06	1.402E-06
0.017	0.036	0.040	1.511	4.222	5.831	9.967	24.260	24.674	35.842
0.00086	0.00184	0.00203	0.07667	0.21429	0.29592	0.50585	1.23127	1.25226	1.81906
1.288E-06	1.271E-06	8.702E-07	8.591E-07	8.411E-07	7.598E-07	6.622E-07	5.683E-07	4.559E-07	4.381E-07
39.472	59.832	60.200	67.783	89.200	89.659	90.165	95.588	95.864	96.369
2.00333	3.03664	3.05530	3.44017	4.52712	4.55045	4.57611	4.85134	4.86534	4.89100
3.471E-07	3.080E-07	2.890E-07	2.082E-07	1.912E-07	1.407E-07	1.085E-07	1.038E-07	8.471E-08	6.228E-08
96.921	96.967	97.059	98.070	98.391	98.851	98.897	99.035	99.127	99.494
4.91899	4.92132	4.92598	4.97730	4.99363	5.01695	5.01929	5.02628	5.03095	5.04961
5.083E-08	4.208E-08	3.244E-08							
99.586	99.954	100.000							
5.05427	5.07293	5.07527							

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 3.220E-05 DISTANCE = 7300.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 1.230
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 3.034

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (5) = 4.524
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (6) = 4.848
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (7) = 4.887

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
8	1	-10.34363	-10.66586	-0.07497
8	2	-10.35648	-16.30418	-1.44133
8	3	-13.06453	-16.15252	-1.37386
8	4	-13.57536	-17.81263	-2.25885
8	5	-13.98859	-34.03220	-11.83969
8	6	-14.38063	-124.39010	+66.27860
8	7	-14.64091	NUMXQ(K) = 7	
		9.472E-06	0.051	1.000
		5.946E-06	0.152	3.000
		4.715E-06	0.254	5.000
		3.377E-06	0.508	10.000
		2.746E-06	0.761	15.000
		2.356E-06	1.015	20.000
		2.086E-06	1.269	25.000
		1.891E-06	1.523	30.000
		1.736E-06	1.776	35.000
		1.611E-06	2.030	40.000
		1.505E-06	2.284	45.000
		1.416E-06	2.538	50.000
		1.338E-06	2.791	55.000
		1.268E-06	3.045	60.000
		1.170E-06	3.299	65.000
		1.085E-06	3.553	70.000
		1.010E-06	3.806	75.000
		9.442E-07	4.060	80.000
		8.856E-07	4.314	85.000
		7.998E-07	4.568	90.000
		3.403E-06	0.5	9.85

ANNUAL AVERAGE = 2.97E-08

K= 8 FIVEXQ(K) = 3.403E-06 FIVEPR(K) = 9.852

FUMIGATION X/Q AT THE BOUNDARY: 1.33E-05

EXPONENTIAL TERM AND FREQUENCIES

9.977E-01	9.975E-01	9.839E-01	8.320E-01	6.071E-01	2.574E-01	1.266E-01
0.184	1.103	3.171	43.618	89.183	98.805	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 1044 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE N SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS			METERS		METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 152.4 METERS														
CA=1292.SQ.METERS														
A	6.2	0.28	7300.	110.			42.		1000.0	1000.0	0.0	0.000E+00	0.000E+00	5.090E-08
A	9.2	0.16	7300.	110.			42.		1000.0	1000.0	0.0	0.000E+00	0.000E+00	3.439E-08
B	3.7	0.07	7300.	110.			42.		848.1	962.0	0.0	0.000E+00	0.000E+00	1.040E-07
B	6.2	0.58	7300.	110.			42.		848.1	962.0	0.0	0.000E+00	0.000E+00	6.238E-08
B	9.2	0.72	7300.	110.			42.		848.1	962.0	0.0	0.000E+00	0.000E+00	4.215E-08
B	12.0	0.12	7300.	110.			42.		848.1	962.0	0.0	0.000E+00	0.000E+00	3.249E-08
B	27.5	0.02	7300.	110.			42.		848.1	962.0	0.0	0.000E+00	0.000E+00	1.418E-08
C	3.7	0.44	7300.	110.			42.		644.0	373.7	0.0	0.000E+00	0.000E+00	3.505E-07
C	6.2	1.68	7300.	110.			42.		644.0	373.7	0.0	0.000E+00	0.000E+00	2.103E-07
C	9.2	1.56	7300.	110.			42.		644.0	373.7	0.0	0.000E+00	0.000E+00	1.421E-07
C	12.0	0.21	7300.	110.			42.		644.0	373.7	0.0	0.000E+00	0.000E+00	1.095E-07
C	27.5	0.02	7300.	110.			42.		644.0	373.7	0.0	0.000E+00	0.000E+00	4.779E-08
D	0.2	0.00	7300.	110.			42.		453.5	111.1	0.0	0.000E+00	0.000E+00	2.350E-05
D	1.7	0.96	7300.	110.			42.		453.5	111.1	0.0	0.000E+00	0.000E+00	3.357E-06
D	3.7	7.00	7300.	110.			42.		453.5	111.1	0.0	0.000E+00	0.000E+00	1.567E-06
D	6.2	16.51	7300.	110.			42.		453.5	111.1	0.0	0.000E+00	0.000E+00	9.400E-07
D	9.2	11.24	7300.	110.			42.		453.5	111.1	0.0	0.000E+00	0.000E+00	6.351E-07
D	12.0	2.31	7300.	110.			42.		453.5	111.1	0.0	0.000E+00	0.000E+00	4.896E-07
D	27.5	0.68	7300.	110.			42.		453.5	111.1	0.0	0.000E+00	0.000E+00	2.136E-07
E	0.3	0.01	7300.	110.			42.		322.5	67.5	0.0	0.000E+00	0.000E+00	4.297E-05
E	2.0	1.63	7300.	110.			42.		322.5	67.5	0.0	0.000E+00	0.000E+00	6.139E-06
E	4.2	10.14	7300.	110.			42.		322.5	67.5	0.0	0.000E+00	0.000E+00	2.865E-06
E	7.0	20.78	7300.	110.			42.		322.5	67.5	0.0	0.000E+00	0.000E+00	1.719E-06
E	10.3	12.03	7300.	110.			42.		322.5	67.5	0.0	0.000E+00	0.000E+00	1.161E-06
E	13.4	1.49	7300.	110.			42.		322.5	67.5	0.0	0.000E+00	0.000E+00	8.952E-07
E	30.7	0.14	7300.	110.			42.		322.5	67.5	0.0	0.000E+00	0.000E+00	3.907E-07
F	0.3	0.01	7300.	110.			42.		222.6	40.9	0.0	0.000E+00	0.000E+00	7.311E-05
F	2.0	0.54	7300.	110.			42.		222.6	40.9	0.0	0.000E+00	0.000E+00	1.044E-05
F	4.2	3.13	7300.	110.			42.		222.6	40.9	0.0	0.000E+00	0.000E+00	4.874E-06
F	7.0	3.03	7300.	110.			42.		222.6	40.9	0.0	0.000E+00	0.000E+00	2.924E-06
F	10.3	1.03	7300.	110.			42.		222.6	40.9	0.0	0.000E+00	0.000E+00	1.976E-06
G	2.0	0.40	7300.	110.			42.		153.6	24.8	0.0	0.000E+00	0.000E+00	9.908E-06
G	4.2	0.79	7300.	110.			42.		153.6	24.8	0.0	0.000E+00	0.000E+00	4.624E-06

G	7.0	0.23	7300.	110.	42.	153.6	24.8	0.0	0.000E+00	0.000E+00	2.774E-06
G	10.3	0.05	7300.	110.	42.	153.6	24.8	0.0	0.000E+00	0.000E+00	1.875E-06

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 1046 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1 96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

N SECTOR BOUNDARY DISTANCE = 7300.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.
 THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.
 THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

7.311E-05	4.297E-05	2.350E-05	1.044E-05	9.908E-06	6.139E-06	4.874E-06	4.624E-06	3.357E-06	2.924E-06
0.006	0.018	0.020	0.556	0.953	2.585	5.710	6.503	7.460	10.491
0.00062	0.00178	0.00200	0.05565	0.09530	0.25858	0.57113	0.65044	0.74607	1.04930
2.865E-06	2.774E-06	1.976E-06	1.875E-06	1.719E-06	1.567E-06	1.161E-06	9.400E-07	8.952E-07	6.351E-07
20.636	20.870	21.896	21.942	42.722	49.718	61.752	78.264	79.757	90.998
2.06395	2.08727	2.18991	2.19457	4.27285	4.97261	6.17619	7.82762	7.97690	9.10118
4.896E-07	3.907E-07	3.505E-07	2.136E-07	2.103E-07	1.421E-07	1.095E-07	1.040E-07	6.238E-08	5.090E-08
93.307	93.447	93.890	94.566	96.245	97.808	98.018	98.088	98.671	98.951
9.33210	9.34609	9.39041	9.45805	9.62599	9.78227	9.80327	9.81026	9.86858	9.89657
4.779E-08	4.215E-08	3.439E-08	3.249E-08	1.418E-08					
98.974	99.697	99.860	99.977	100.000					
9.89890	9.97121	9.98753	9.99920	10.00153					

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
 THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 7.311E-05 DISTANCE = 7300.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
 ORDERED X/Q-FREQUENCY VALUES, AND AS
 PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2) = 0.650
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3) = 2.062

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4) = 4.969
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5) = 7.824
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(6) = 9.098

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
9	1	-9.52359	-15.91905	-1.46331
9	2	-12.28426	-14.96992	-1.08121
9	3	-12.76301	-15.89571	-1.53477
9	4	-13.36661	-17.01296	-2.21276
9	5	-13.87743	-20.63088	-4.76595
9	6	-14.26948	NUMXQ(K) = 6	
		1.123E-05	0.100	1.000
		6.806E-06	0.300	3.000
		5.292E-06	0.500	5.000
		3.901E-06	1.000	10.000
		3.295E-06	1.500	15.000
		2.905E-06	2.000	20.000
		2.531E-06	2.500	25.000
		2.241E-06	3.000	30.000
		2.016E-06	3.501	35.000
		1.835E-06	4.001	40.000
		1.686E-06	4.501	45.000
		1.557E-06	5.001	50.000
		1.404E-06	5.501	55.000
		1.276E-06	6.001	60.000
		1.166E-06	6.501	65.000
		1.071E-06	7.001	70.000
		9.884E-07	7.501	75.000
		8.886E-07	8.001	80.000
		7.597E-07	8.501	85.000
		6.539E-07	9.001	90.000
		5.293E-06	0.5	5.00

ANNUAL AVERAGE = 6.51E-08

K= 9 FIVEXQ(K)= 5.293E-06 FIVEPR(K)= 4.999

FUMIGATION X/Q AT THE BOUNDARY: 1.75E-05

EXPONENTIAL TERM AND FREQUENCIES

9.991E-01	9.990E-01	9.936E-01	9.298E-01	8.208E-01	5.845E-01	2.321E-01
0.443	1.959	5.877	44.570	90.805	98.531	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1048 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1 96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE NNE SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 152.4 METERS												CA=1292.SQ.METERS		
A	3.7	0.08	7300.	85.	67.		1000.0	1000.0	0.0	0.000E+00	0.000E+00	8.471E-08		
A	6.2	0.28	7300.	85.	67.		1000.0	1000.0	0.0	0.000E+00	0.000E+00	5.083E-08		
A	9.2	0.12	7300.	85.	67.		1000.0	1000.0	0.0	0.000E+00	0.000E+00	3.434E-08		
B	3.7	0.16	7300.	85.	67.		848.1	962.0	0.0	0.000E+00	0.000E+00	1.038E-07		
B	6.2	0.56	7300.	85.	67.		848.1	962.0	0.0	0.000E+00	0.000E+00	6.228E-08		
B	9.2	0.36	7300.	85.	67.		848.1	962.0	0.0	0.000E+00	0.000E+00	4.208E-08		
B	12.0	0.08	7300.	85.	67.		848.1	962.0	0.0	0.000E+00	0.000E+00	3.244E-08		
C	3.7	0.20	7300.	85.	67.		644.0	373.7	0.0	0.000E+00	0.000E+00	3.471E-07		
C	6.2	1.47	7300.	85.	67.		644.0	373.7	0.0	0.000E+00	0.000E+00	2.082E-07		
C	9.2	0.95	7300.	85.	67.		644.0	373.7	0.0	0.000E+00	0.000E+00	1.407E-07		
D	0.2	0.00	7300.	85.	67.		453.5	111.1	0.0	0.000E+00	0.000E+00	2.103E-05		
D	1.7	0.91	7300.	85.	67.		453.5	111.1	0.0	0.000E+00	0.000E+00	3.004E-06		
D	3.7	7.60	7300.	85.	67.		453.5	111.1	0.0	0.000E+00	0.000E+00	1.402E-06		
D	6.2	16.91	7300.	85.	67.		453.5	111.1	0.0	0.000E+00	0.000E+00	8.411E-07		
D	9.2	6.60	7300.	85.	67.		453.5	111.1	0.0	0.000E+00	0.000E+00	5.683E-07		
D	12.0	0.64	7300.	85.	67.		453.5	111.1	0.0	0.000E+00	0.000E+00	4.381E-07		
D	27.5	0.36	7300.	85.	67.		453.5	111.1	0.0	0.000E+00	0.000E+00	1.912E-07		
E	0.3	0.02	7300.	85.	67.		322.5	67.5	0.0	0.000E+00	0.000E+00	3.179E-05		
E	2.0	2.23	7300.	85.	67.		322.5	67.5	0.0	0.000E+00	0.000E+00	4.541E-06		
E	4.2	12.73	7300.	85.	67.		322.5	67.5	0.0	0.000E+00	0.000E+00	2.119E-06		
E	7.0	22.95	7300.	85.	67.		322.5	67.5	0.0	0.000E+00	0.000E+00	1.271E-06		
E	10.3	9.07	7300.	85.	67.		322.5	67.5	0.0	0.000E+00	0.000E+00	8.591E-07		
E	13.4	0.76	7300.	85.	67.		322.5	67.5	0.0	0.000E+00	0.000E+00	6.622E-07		
E	30.7	0.16	7300.	85.	67.		322.5	67.5	0.0	0.000E+00	0.000E+00	2.890E-07		
F	0.3	0.01	7300.	85.	67.		222.6	40.9	0.0	0.000E+00	0.000E+00	3.220E-05		
F	2.0	1.27	7300.	85.	67.		222.6	40.9	0.0	0.000E+00	0.000E+00	4.600E-06		
F	4.2	5.61	7300.	85.	67.		222.6	40.9	0.0	0.000E+00	0.000E+00	2.146E-06		
F	7.0	4.42	7300.	85.	67.		222.6	40.9	0.0	0.000E+00	0.000E+00	1.288E-06		
F	10.3	0.91	7300.	85.	67.		222.6	40.9	0.0	0.000E+00	0.000E+00	8.702E-07		
F	13.4	0.12	7300.	85.	67.		222.6	40.9	0.0	0.000E+00	0.000E+00	6.708E-07		
G	2.0	0.36	20000.	85.	67.		381.8	33.2	0.0	0.000E+00	0.000E+00	1.628E-06		
G	4.2	1.23	20000.	85.	67.		381.8	33.2	0.0	0.000E+00	0.000E+00	7.598E-07		
G	7.0	0.84	20000.	85.	67.		381.8	33.2	0.0	0.000E+00	0.000E+00	4.559E-07		

G	10.3	0.04	20000.	85.	67.	381.8	33.2	0.0	0.000E+00	0.000E+00	3.080E-07
---	------	------	--------	-----	-----	-------	------	-----	-----------	-----------	-----------

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1050 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

NNE SECTOR BOUNDARY DISTANCE = 7300.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

3.220E-05	3.179E-05	2.103E-05	4.600E-06	4.541E-06	3.004E-06	2.146E-06	2.119E-06	1.628E-06	1.402E-06
0.015	0.031	0.033	1.306	3.533	4.448	10.057	22.787	23.145	30.743
0.00086	0.00179	0.00191	0.07655	0.20717	0.26082	0.58971	1.33612	1.35711	1.80262
1.288E-06	1.271E-06	8.702E-07	8.591E-07	8.411E-07	7.598E-07	6.708E-07	6.622E-07	5.683E-07	4.559E-07
35.158	58.112	59.026	68.096	85.003	86.236	86.355	87.111	93.715	94.550
2.06153	3.40740	3.46105	3.99286	4.98419	5.05649	5.06349	5.10781	5.49501	5.54399
4.381E-07	3.471E-07	3.080E-07	2.890E-07	2.082E-07	1.912E-07	1.407E-07	1.038E-07	8.471E-08	6.228E-08
95.187	95.385	95.425	95.584	97.056	97.414	98.369	98.528	98.608	99.165
5.58131	5.59297	5.59531	5.60464	5.69094	5.71193	5.76791	5.77724	5.78191	5.81456
5.083E-08	4.208E-08	3.434E-08	3.244E-08						
99.443	99.801	99.920	100.000						
5.83089	5.85188	5.85888	5.86355						

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 3.220E-05 DISTANCE = 7300.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 1.335
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 3.404

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 4.980
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(6)= 5.491
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(7)= 5.578

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
10	1	-10.34363	-10.67816	-0.07783
10	2	-10.35648	-16.19523	-1.41278
10	3	-13.06453	-15.95552	-1.30460
10	4	-13.57536	-17.81822	-2.32558
10	5	-13.98859	-27.50484	-8.20785
10	6	-14.38063	-68.29697	-33.71915
10	7	-14.64091	NUMXQ(K)= 7	
		9.077E-06	0.059	1.000
		5.719E-06	0.176	3.000
		4.542E-06	0.293	5.000
		3.259E-06	0.586	10.000
		2.651E-06	0.880	15.000
		2.275E-06	1.173	20.000
		2.021E-06	1.466	25.000
		1.837E-06	1.759	30.000
		1.692E-06	2.052	35.000
		1.573E-06	2.345	40.000
		1.473E-06	2.639	45.000
		1.387E-06	2.932	50.000
		1.313E-06	3.225	55.000
		1.229E-06	3.518	60.000
		1.129E-06	3.811	65.000
		1.043E-06	4.104	70.000
		9.668E-07	4.398	75.000
		9.002E-07	4.691	80.000
		8.411E-07	4.984	85.000
		6.692E-07	5.277	90.000
		3.525E-06	0.5	8.53

ANNUAL AVERAGE = 3.11E-08

K= 10 FIVEXQ(K)= 3.525E-06 FIVEPR(K)= 8.527

FUMIGATION X/Q AT THE BOUNDARY: 1.33E-05

EXPONENTIAL TERM AND FREQUENCIES

9.977E-01	9.975E-01	9.839E-01	8.320E-01	6.071E-01	2.574E-01	1.266E-01
0.477	1.631	4.256	37.276	85.187	97.534	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 1052 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1 96.3 meters

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE NE SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN HT	EFF PLUME HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 152.4 METERS						CA=1292.SQ.METERS					
A	3.7	0.09	7300.	85.	67.	1000.0	1000.0	0.0	0.000E+00	0.000E+00	8.471E-08
A	6.2	0.23	7300.	85.	67.	1000.0	1000.0	0.0	0.000E+00	0.000E+00	5.083E-08
A	9.2	0.09	7300.	85.	67.	1000.0	1000.0	0.0	0.000E+00	0.000E+00	3.434E-08
B	3.7	0.14	7300.	85.	67.	848.1	962.0	0.0	0.000E+00	0.000E+00	1.038E-07
B	6.2	0.61	7300.	85.	67.	848.1	962.0	0.0	0.000E+00	0.000E+00	6.228E-08
B	9.2	0.28	7300.	85.	67.	848.1	962.0	0.0	0.000E+00	0.000E+00	4.208E-08
B	12.0	0.05	7300.	85.	67.	848.1	962.0	0.0	0.000E+00	0.000E+00	3.244E-08
C	3.7	0.33	7300.	85.	67.	644.0	373.7	0.0	0.000E+00	0.000E+00	3.471E-07
C	6.2	1.41	7300.	85.	67.	644.0	373.7	0.0	0.000E+00	0.000E+00	2.082E-07
C	9.2	0.99	7300.	85.	67.	644.0	373.7	0.0	0.000E+00	0.000E+00	1.407E-07
C	12.0	0.19	7300.	85.	67.	644.0	373.7	0.0	0.000E+00	0.000E+00	1.085E-07
C	27.5	0.05	7300.	85.	67.	644.0	373.7	0.0	0.000E+00	0.000E+00	4.733E-08
D	0.2	0.00	7300.	85.	67.	453.5	111.1	0.0	0.000E+00	0.000E+00	2.103E-05
D	1.7	1.50	7300.	85.	67.	453.5	111.1	0.0	0.000E+00	0.000E+00	3.004E-06
D	3.7	7.28	7300.	85.	67.	453.5	111.1	0.0	0.000E+00	0.000E+00	1.402E-06
D	6.2	13.48	7300.	85.	67.	453.5	111.1	0.0	0.000E+00	0.000E+00	8.411E-07
D	9.2	5.92	7300.	85.	67.	453.5	111.1	0.0	0.000E+00	0.000E+00	5.683E-07
D	12.0	0.75	7300.	85.	67.	453.5	111.1	0.0	0.000E+00	0.000E+00	4.381E-07
D	27.5	0.14	7300.	85.	67.	453.5	111.1	0.0	0.000E+00	0.000E+00	1.912E-07
E	0.3	0.02	7300.	85.	67.	322.5	67.5	0.0	0.000E+00	0.000E+00	3.179E-05
E	2.0	2.77	7300.	85.	67.	322.5	67.5	0.0	0.000E+00	0.000E+00	4.541E-06
E	4.2	13.19	7300.	85.	67.	322.5	67.5	0.0	0.000E+00	0.000E+00	2.119E-06
E	7.0	16.62	7300.	85.	67.	322.5	67.5	0.0	0.000E+00	0.000E+00	1.271E-06
E	10.3	10.14	7300.	85.	67.	322.5	67.5	0.0	0.000E+00	0.000E+00	8.591E-07
E	13.4	0.85	7300.	85.	67.	322.5	67.5	0.0	0.000E+00	0.000E+00	6.622E-07
E	30.7	0.09	7300.	85.	67.	322.5	67.5	0.0	0.000E+00	0.000E+00	2.890E-07
F	0.3	0.02	7300.	85.	67.	222.6	40.9	0.0	0.000E+00	0.000E+00	3.220E-05
F	2.0	1.50	7300.	85.	67.	222.6	40.9	0.0	0.000E+00	0.000E+00	4.600E-06
F	4.2	7.32	7300.	85.	67.	222.6	40.9	0.0	0.000E+00	0.000E+00	2.146E-06
F	7.0	7.37	7300.	85.	67.	222.6	40.9	0.0	0.000E+00	0.000E+00	1.288E-06
F	10.3	1.83	7300.	85.	67.	222.6	40.9	0.0	0.000E+00	0.000E+00	8.702E-07
G	2.0	0.28	20000.	85.	67.	381.8	33.2	0.0	0.000E+00	0.000E+00	1.628E-06
G	4.2	1.69	20000.	85.	67.	381.8	33.2	0.0	0.000E+00	0.000E+00	7.598E-07

G	7.0	2.39	20000.	85.	67.	381.8	33.2	0.0	0.000E+00	0.000E+00	4.559E-07
G	10.3	0.38	20000.	85.	67.	381.8	33.2	0.0	0.000E+00	0.000E+00	3.080E-07

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 1054 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

NE SECTOR BOUNDARY DISTANCE = 7300.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

3.220E-05	3.179E-05	2.103E-05	4.600E-06	4.541E-06	3.004E-06	2.146E-06	2.119E-06	1.628E-06	1.402E-06
0.017	0.037	0.040	1.543	4.313	5.815	13.140	26.333	26.615	33.892
0.00086	0.00184	0.00201	0.07665	0.21427	0.28891	0.65278	1.30822	1.32222	1.68376
1.288E-06	1.271E-06	8.702E-07	8.591E-07	8.411E-07	7.598E-07	6.622E-07	5.683E-07	4.559E-07	4.381E-07
41.264	57.885	59.716	69.857	83.332	85.022	85.868	91.783	94.178	94.929
2.04997	2.87568	2.96665	3.47047	4.13991	4.22388	4.26586	4.55976	4.67872	4.71604
3.471E-07	3.080E-07	2.890E-07	2.082E-07	1.912E-07	1.407E-07	1.085E-07	1.038E-07	8.471E-08	6.228E-08
95.258	95.633	95.727	97.136	97.277	98.263	98.451	98.591	98.685	99.296
4.73237	4.75103	4.75569	4.82567	4.83267	4.88165	4.89098	4.89798	4.90264	4.93297
5.083E-08	4.733E-08	4.208E-08	3.434E-08	3.244E-08					
99.530	99.577	99.859	99.953	100.000					
4.94463	4.94696	4.96096	4.96562	4.96795					

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 3.220E-05 DISTANCE = 7300.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLYHANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 1.307
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 2.873

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (5)= 4.136
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (6)= 4.556
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (7)= 4.712

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
11	1	-10.34363	-10.66586	-0.07497
11	2	-10.35648	-16.23081	-1.42355
11	3	-13.06453	-16.56700	-1.57470
11	4	-13.57536	-18.34056	-2.50825
11	5	-13.98859	-28.91752	-8.60427
11	6	-14.38063	-41.69655	-16.16806
11	7	-14.64091	NUMXQ(K)= 7	
		9.697E-06	0.050	1.000
		6.127E-06	0.149	3.000
		4.875E-06	0.248	5.000
		3.509E-06	0.497	10.000
		2.861E-06	0.745	15.000
		2.461E-06	0.994	20.000
		2.181E-06	1.242	25.000
		1.955E-06	1.490	30.000
		1.774E-06	1.739	35.000
		1.628E-06	1.987	40.000
		1.507E-06	2.236	45.000
		1.405E-06	2.484	50.000
		1.317E-06	2.732	55.000
		1.222E-06	2.981	60.000
		1.118E-06	3.229	65.000
		1.028E-06	3.478	70.000
		9.505E-07	3.726	75.000
		8.821E-07	3.974	80.000
		7.765E-07	4.223	85.000
		6.158E-07	4.471	90.000
		3.498E-06	0.5	10.06

ANNUAL AVERAGE = 2.69E-08

K= 11 FIVEXQ(K)= 3.498E-06 FIVEPR(K)=10.065

FUMIGATION X/Q AT THE BOUNDARY: 1.33E-05

EXPONENTIAL TERM AND FREQUENCIES

9.977E-01	9.975E-01	9.839E-01	8.320E-01	6.071E-01	2.574E-01	1.266E-01
0.423	1.502	4.460	33.527	77.211	95.258	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 1056 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE ENE SECTOR.

STABILITY CLASS	WINDSPEED METER/SEC	FREQUENCY PERCENT	DISTANCE METERS	TERRAIN METERS	HT METERS	EFF METERS	PLUME METERS	HT METERS	SIGMA-Y METERS	SIGMA-Z METERS	MEANDER-SY METERS	** CHI/Q VALUES (SEC/CUBIC METER)
												MEANDER BLDG WAKE USED
												CA=1292.SQ.METERS
A	6.2	0.33	7300.	67.	85.	1000.0	1000.0	0.0	0.000E+00	0.000E+00	5.076E-08	
A	9.2	0.14	7300.	67.	85.	1000.0	1000.0	0.0	0.000E+00	0.000E+00	3.430E-08	
A	12.0	0.09	7300.	67.	85.	1000.0	1000.0	0.0	0.000E+00	0.000E+00	2.644E-08	
A	27.5	0.09	7300.	67.	85.	1000.0	1000.0	0.0	0.000E+00	0.000E+00	1.154E-08	
B	3.7	0.05	7300.	67.	85.	848.1	962.0	0.0	0.000E+00	0.000E+00	1.037E-07	
B	6.2	0.38	7300.	67.	85.	848.1	962.0	0.0	0.000E+00	0.000E+00	6.219E-08	
B	9.2	0.89	7300.	67.	85.	848.1	962.0	0.0	0.000E+00	0.000E+00	4.202E-08	
B	12.0	0.09	7300.	67.	85.	848.1	962.0	0.0	0.000E+00	0.000E+00	3.239E-08	
B	27.5	0.05	7300.	67.	85.	848.1	962.0	0.0	0.000E+00	0.000E+00	1.413E-08	
C	3.7	0.14	7300.	67.	85.	644.0	373.7	0.0	0.000E+00	0.000E+00	3.437E-07	
C	6.2	1.22	7300.	67.	85.	644.0	373.7	0.0	0.000E+00	0.000E+00	2.062E-07	
C	9.2	1.46	7300.	67.	85.	644.0	373.7	0.0	0.000E+00	0.000E+00	1.393E-07	
C	12.0	0.19	7300.	67.	85.	644.0	373.7	0.0	0.000E+00	0.000E+00	1.074E-07	
C	27.5	0.05	7300.	67.	85.	644.0	373.7	0.0	0.000E+00	0.000E+00	4.686E-08	
D	0.2	0.00	7300.	67.	85.	453.5	111.1	0.0	0.000E+00	0.000E+00	1.881E-05	
D	1.7	0.71	7300.	67.	85.	453.5	111.1	0.0	0.000E+00	0.000E+00	2.687E-06	
D	3.7	6.02	7300.	67.	85.	453.5	111.1	0.0	0.000E+00	0.000E+00	1.254E-06	
D	6.2	9.93	7300.	67.	85.	453.5	111.1	0.0	0.000E+00	0.000E+00	7.524E-07	
D	9.2	8.94	7300.	67.	85.	453.5	111.1	0.0	0.000E+00	0.000E+00	5.084E-07	
D	12.0	1.03	7300.	67.	85.	453.5	111.1	0.0	0.000E+00	0.000E+00	3.919E-07	
D	27.5	0.28	7300.	67.	85.	453.5	111.1	0.0	0.000E+00	0.000E+00	1.710E-07	
E	0.3	0.02	7300.	67.	85.	322.5	67.5	0.0	0.000E+00	0.000E+00	2.350E-05	
E	2.0	2.54	7300.	67.	85.	322.5	67.5	0.0	0.000E+00	0.000E+00	3.357E-06	
E	4.2	8.80	7300.	67.	85.	322.5	67.5	0.0	0.000E+00	0.000E+00	1.567E-06	
E	7.0	13.97	7300.	67.	85.	322.5	67.5	0.0	0.000E+00	0.000E+00	9.399E-07	
E	10.3	12.75	7300.	67.	85.	322.5	67.5	0.0	0.000E+00	0.000E+00	6.351E-07	
E	13.4	1.41	7300.	67.	85.	322.5	67.5	0.0	0.000E+00	0.000E+00	4.895E-07	
E	30.7	0.05	7300.	67.	85.	322.5	67.5	0.0	0.000E+00	0.000E+00	2.136E-07	
F	0.3	0.02	10000.	67.	85.	295.8	46.1	0.0	0.000E+00	0.000E+00	1.504E-05	
F	2.0	1.55	10000.	67.	85.	295.8	46.1	0.0	0.000E+00	0.000E+00	2.149E-06	
F	4.2	5.50	10000.	67.	85.	295.8	46.1	0.0	0.000E+00	0.000E+00	1.003E-06	
F	7.0	8.33	10000.	67.	85.	295.8	46.1	0.0	0.000E+00	0.000E+00	6.017E-07	
F	10.3	5.13	10000.	67.	85.	295.8	46.1	0.0	0.000E+00	0.000E+00	4.066E-07	
F	13.4	0.85	10000.	67.	85.	295.8	46.1	0.0	0.000E+00	0.000E+00	3.134E-07	

G	2.0	0.85	90000.	67.	85.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.316E-07
G	4.2	1.60	90000.	67.	85.	1000.0	46.0	0.0	0.000E+00	0.000E+00	2.947E-07
G	7.0	3.29	90000.	67.	85.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.768E-07
G	10.3	1.22	90000.	67.	85.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.195E-07
G	13.4	0.05	90000.	67.	85.	1000.0	46.0	0.0	0.000E+00	0.000E+00	9.210E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1058 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

ENE SECTOR BOUNDARY DISTANCE = 7300.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

2.350E-05	1.881E-05	1.504E-05	3.357E-06	2.687E-06	2.149E-06	1.567E-06	1.254E-06	1.003E-06	9.399E-07
0.018	0.020	0.038	2.578	3.283	4.836	13.632	19.654	25.158	39.129
0.00090	0.00098	0.00186	0.12782	0.16281	0.23978	0.67596	0.97453	1.24743	1.94019
7.524E-07	6.351E-07	6.316E-07	6.017E-07	5.084E-07	4.895E-07	4.066E-07	3.919E-07	3.437E-07	3.134E-07
49.054	61.803	62.649	70.976	79.913	81.325	86.452	87.487	87.628	88.475
2.43235	3.06447	3.10645	3.51931	3.96249	4.03247	4.28671	4.33803	4.34502	4.38701
2.947E-07	2.136E-07	2.062E-07	1.768E-07	1.710E-07	1.393E-07	1.195E-07	1.074E-07	1.037E-07	9.210E-08
90.074	90.121	91.344	94.637	94.920	96.378	97.601	97.789	97.836	97.883
4.46632	4.46865	4.52929	4.69257	4.70657	4.77887	4.83952	4.84885	4.85118	4.85352
6.219E-08	5.076E-08	4.686E-08	4.202E-08	3.430E-08	3.239E-08	2.644E-08	1.413E-08	1.154E-08	
98.259	98.589	98.636	99.530	99.671	99.765	99.859	99.906	100.000	
4.87218	4.88850	4.89084	4.93515	4.94215	4.94682	4.95148	4.95381	4.95848	

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 2.350E-05 DISTANCE = 7300.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 1.938

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 3.516

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 3.959
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 4.029
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(6)= 4.283
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(7)= 4.335
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(8)= 4.463
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(9)= 4.689

K	I	XQSAVE(K, I)	XQINT(K, I)	XQSLOP(K, I)
12	1	-10.65860	-16.87074	-1.44833
12	2	-13.87747	-17.46548	-1.73610
12	3	-14.32344	-19.93372	-3.09991
12	4	-14.49200	-22.65677	-4.65111
12	5	-14.52980	-25.87565	-6.49328
12	6	-14.71549	-25.99988	-6.56556
12	7	-14.75228	-50.17148	-20.67527
12	8	-15.03721	-51.90182	-21.69352
12	9	-15.54804	NUMXQ(K) = 9	
		5.553E-06	0.050	1.000
		3.481E-06	0.149	3.000
		2.759E-06	0.248	5.000
		1.974E-06	0.496	10.000
		1.604E-06	0.744	15.000
		1.376E-06	0.992	20.000
		1.217E-06	1.240	25.000
		1.098E-06	1.488	30.000
		1.004E-06	1.735	35.000
		9.252E-07	1.983	40.000
		8.497E-07	2.231	45.000
		7.864E-07	2.479	50.000
		7.323E-07	2.727	55.000
		6.855E-07	2.975	60.000
		6.445E-07	3.223	65.000
		6.083E-07	3.471	70.000
		5.566E-07	3.719	75.000
		5.072E-07	3.967	80.000
		4.281E-07	4.215	85.000
		2.971E-07	4.463	90.000
		1.966E-06	0.5	10.08

ANNUAL AVERAGE = 1.66E-08

K= 12 FIVEXQ(K)= 1.966E-06 FIVEPR(K)=10.084

FUMIGATION X/Q AT THE BOUNDARY: 1.05E-05

EXPONENTIAL TERM AND FREQUENCIES

9.964E-01	9.961E-01	9.742E-01	7.443E-01	4.488E-01	1.802E-01	1.786E-01
0.659	2.117	5.175	32.084	71.616	92.991	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 1060 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1 96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE E SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)
CLASS	METER/SEC	PERCENT	METERS	METERS			METERS		METERS	METERS	METERS	MEANDER BLDG WAKE USED
AT 152.4 METERS												
CA=1292.SQ.METERS												
A	3.7	0.03	7300.	48.			104.		1000.0	1000.0	0.0	0.000E+00 0.000E+00 8.445E-08
A	6.2	0.24	7300.	48.			104.		1000.0	1000.0	0.0	0.000E+00 0.000E+00 5.067E-08
A	9.2	0.63	7300.	48.			104.		1000.0	1000.0	0.0	0.000E+00 0.000E+00 3.423E-08
A	12.0	0.42	7300.	48.			104.		1000.0	1000.0	0.0	0.000E+00 0.000E+00 2.639E-08
A	27.5	0.06	7300.	48.			104.		1000.0	1000.0	0.0	0.000E+00 0.000E+00 1.152E-08
B	3.7	0.12	7300.	48.			104.		848.1	962.0	0.0	0.000E+00 0.000E+00 1.035E-07
B	6.2	0.63	7300.	48.			104.		848.1	962.0	0.0	0.000E+00 0.000E+00 6.207E-08
B	9.2	0.81	7300.	48.			104.		848.1	962.0	0.0	0.000E+00 0.000E+00 4.194E-08
B	12.0	0.36	7300.	48.			104.		848.1	962.0	0.0	0.000E+00 0.000E+00 3.233E-08
B	27.5	0.18	7300.	48.			104.		848.1	962.0	0.0	0.000E+00 0.000E+00 1.411E-08
C	3.7	0.15	7300.	48.			104.		644.0	373.7	0.0	0.000E+00 0.000E+00 3.393E-07
C	6.2	1.25	7300.	48.			104.		644.0	373.7	0.0	0.000E+00 0.000E+00 2.036E-07
C	9.2	1.67	7300.	48.			104.		644.0	373.7	0.0	0.000E+00 0.000E+00 1.375E-07
C	12.0	0.86	7300.	48.			104.		644.0	373.7	0.0	0.000E+00 0.000E+00 1.060E-07
C	27.5	0.39	7300.	48.			104.		644.0	373.7	0.0	0.000E+00 0.000E+00 4.626E-08
D	0.2	0.00	7300.	48.			104.		453.5	111.1	0.0	0.000E+00 0.000E+00 1.626E-05
D	1.7	0.78	7300.	48.			104.		453.5	111.1	0.0	0.000E+00 0.000E+00 2.322E-06
D	3.7	4.21	7300.	48.			104.		453.5	111.1	0.0	0.000E+00 0.000E+00 1.084E-06
D	6.2	8.98	7300.	48.			104.		453.5	111.1	0.0	0.000E+00 0.000E+00 6.502E-07
D	9.2	11.78	7300.	48.			104.		453.5	111.1	0.0	0.000E+00 0.000E+00 4.393E-07
D	12.0	6.71	7300.	48.			104.		453.5	111.1	0.0	0.000E+00 0.000E+00 3.386E-07
D	27.5	2.68	7300.	48.			104.		453.5	111.1	0.0	0.000E+00 0.000E+00 1.478E-07
E	0.3	0.01	7300.	48.			104.		322.5	67.5	0.0	0.000E+00 0.000E+00 1.581E-05
E	2.0	1.61	7300.	48.			104.		322.5	67.5	0.0	0.000E+00 0.000E+00 2.259E-06
E	4.2	5.16	7300.	48.			104.		322.5	67.5	0.0	0.000E+00 0.000E+00 1.054E-06
E	7.0	11.78	7300.	48.			104.		322.5	67.5	0.0	0.000E+00 0.000E+00 6.325E-07
E	10.3	15.99	7300.	48.			104.		322.5	67.5	0.0	0.000E+00 0.000E+00 4.274E-07
E	13.4	2.33	7300.	48.			104.		322.5	67.5	0.0	0.000E+00 0.000E+00 3.294E-07
E	30.7	0.27	7300.	48.			104.		322.5	67.5	0.0	0.000E+00 0.000E+00 1.437E-07
F	0.3	0.01	20000.	48.			104.		553.1	58.7	0.0	0.000E+00 0.000E+00 7.219E-06
F	2.0	0.89	20000.	48.			104.		553.1	58.7	0.0	0.000E+00 0.000E+00 1.031E-06
F	4.2	2.54	20000.	48.			104.		553.1	58.7	0.0	0.000E+00 0.000E+00 4.813E-07
F	7.0	5.91	20000.	48.			104.		553.1	58.7	0.0	0.000E+00 0.000E+00 2.888E-07
F	10.3	5.01	20000.	48.			104.		553.1	58.7	0.0	0.000E+00 0.000E+00 1.951E-07

Calculation No. PM-1055 Revision 0
Attachment J
Page 1061 of 1411

F	13.4	0.72	20000.	48.	104.	553.1	58.7	0.0	0.000E+00	0.000E+00	1.504E-07
G	2.0	0.39	90000.	48.	104.	1000.0	46.0	0.0	0.000E+00	0.000E+00	2.694E-07
G	4.2	1.19	90000.	48.	104.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.257E-07
G	7.0	2.06	90000.	48.	104.	1000.0	46.0	0.0	0.000E+00	0.000E+00	7.544E-08
G	10.3	1.16	90000.	48.	104.	1000.0	46.0	0.0	0.000E+00	0.000E+00	5.097E-08
G	13.4	0.03	90000.	48.	104.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.929E-08
G	30.7	0.03	90000.	48.	104.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.715E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1062 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

E SECTOR BOUNDARY DISTANCE = 7300.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.
THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.
THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.626E-05	1.581E-05	7.219E-06	2.322E-06	2.259E-06	1.084E-06	1.054E-06	1.031E-06	6.502E-07	6.325E-07
0.002	0.013	0.024	0.799	2.410	6.615	11.775	12.670	21.647	33.429
0.00014	0.00103	0.00184	0.06249	0.18844	0.51733	0.92086	0.99083	1.69292	2.61427
4.813E-07	4.393E-07	4.274E-07	3.393E-07	3.386E-07	3.294E-07	2.888E-07	2.694E-07	2.036E-07	1.951E-07
35.964	47.745	63.732	63.881	70.592	72.918	78.824	79.211	80.464	85.475
2.81253	3.73388	4.98411	4.99578	5.52059	5.70253	6.16437	6.19469	6.29266	6.68452
1.504E-07	1.478E-07	1.437E-07	1.375E-07	1.257E-07	1.060E-07	1.035E-07	8.445E-08	7.544E-08	6.207E-08
86.191	88.875	89.143	90.814	92.007	92.872	92.991	93.021	95.079	95.705
6.74050	6.95043	6.97142	7.10205	7.19535	7.26299	7.27232	7.27465	7.43560	7.48458
5.097E-08	5.067E-08	4.626E-08	4.194E-08	3.929E-08	3.423E-08	3.233E-08	2.639E-08	1.715E-08	1.411E-08
96.868	97.107	97.495	98.300	98.330	98.956	99.314	99.732	99.761	99.940
7.57555	7.59421	7.62453	7.68751	7.68984	7.73882	7.76681	7.79947	7.80180	7.81580
1.152E-08									
100.000									
7.82046									

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.752E-05 DISTANCE = 5000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS

Calculation No. PM-1055 Revision 0

SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

Attachment J

Page 1063 of 1411

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (3) = 2.612
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (4) = 4.980
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (5) = 6.161
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (6) = 6.681
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (7) = 7.098
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (8) = 7.192

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
13	1	-11.02711	-11.32689	-0.06393
13	2	-11.05472	-16.97121	-1.38966
13	3	-14.27359	-16.85818	-1.33143
13	4	-14.66564	-20.79554	-3.72242
13	5	-15.05767	-29.64292	-9.46211
13	6	-15.44971	-32.10639	-11.10442
13	7	-15.79937	-35.05578	-13.11283
13	8	-15.88907	NUMXQ(K) = 8	
		3.454E-06	0.078	1.000
		2.168E-06	0.235	3.000
		1.718E-06	0.391	5.000
		1.226E-06	0.782	10.000
		9.937E-07	1.173	15.000
		8.500E-07	1.564	20.000
		7.497E-07	1.955	25.000
		6.745E-07	2.346	30.000
		6.160E-07	2.737	35.000
		5.697E-07	3.128	40.000
		5.310E-07	3.519	45.000
		4.980E-07	3.910	50.000
		4.693E-07	4.301	55.000
		4.442E-07	4.692	60.000
		4.124E-07	5.083	65.000
		3.602E-07	5.474	70.000
		3.170E-07	5.865	75.000
		2.689E-07	6.256	80.000
		2.005E-07	6.647	85.000
		1.449E-07	7.038	90.000
		1.529E-06	0.5	6.39

ANNUAL AVERAGE = 1.64E-08

K= 13 FIVEXQ(K)= 1.529E-06 FIVEPR(K)= 6.393

FUMIGATION X/Q AT THE BOUNDARY: 8.58E-06

EXPONENTIAL TERM AND FREQUENCIES

9.946E-01	9.941E-01	9.617E-01	6.432E-01	3.020E-01	2.058E-01	7.618E-02
1.372	3.460	7.785	42.921	80.066	95.138	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1064 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1 96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft. wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE ESE SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 152.4 METERS												CA=1292.SQ.METERS		
A	6.2	0.24	7300.	67.	85.	1000.0	1000.0	0.0	0.000E+00	0.000E+00	5.076E-08			
A	9.2	0.24	7300.	67.	85.	1000.0	1000.0	0.0	0.000E+00	0.000E+00	3.430E-08			
A	12.0	0.05	7300.	67.	85.	1000.0	1000.0	0.0	0.000E+00	0.000E+00	2.644E-08			
A	27.5	0.13	7300.	67.	85.	1000.0	1000.0	0.0	0.000E+00	0.000E+00	1.154E-08			
B	3.7	0.08	7300.	67.	85.	848.1	962.0	0.0	0.000E+00	0.000E+00	1.037E-07			
B	6.2	0.24	7300.	67.	85.	848.1	962.0	0.0	0.000E+00	0.000E+00	6.219E-08			
B	9.2	0.53	7300.	67.	85.	848.1	962.0	0.0	0.000E+00	0.000E+00	4.202E-08			
B	12.0	0.37	7300.	67.	85.	848.1	962.0	0.0	0.000E+00	0.000E+00	3.239E-08			
B	27.5	0.19	7300.	67.	85.	848.1	962.0	0.0	0.000E+00	0.000E+00	1.413E-08			
C	3.7	0.13	7300.	67.	85.	644.0	373.7	0.0	0.000E+00	0.000E+00	3.437E-07			
C	6.2	0.69	7300.	67.	85.	644.0	373.7	0.0	0.000E+00	0.000E+00	2.062E-07			
C	9.2	1.57	7300.	67.	85.	644.0	373.7	0.0	0.000E+00	0.000E+00	1.393E-07			
C	12.0	0.80	7300.	67.	85.	644.0	373.7	0.0	0.000E+00	0.000E+00	1.074E-07			
C	27.5	0.72	7300.	67.	85.	644.0	373.7	0.0	0.000E+00	0.000E+00	4.686E-08			
D	0.2	0.00	7300.	67.	85.	453.5	111.1	0.0	0.000E+00	0.000E+00	1.881E-05			
D	1.7	1.01	7300.	67.	85.	453.5	111.1	0.0	0.000E+00	0.000E+00	2.687E-06			
D	3.7	2.59	7300.	67.	85.	453.5	111.1	0.0	0.000E+00	0.000E+00	1.254E-06			
D	6.2	9.48	7300.	67.	85.	453.5	111.1	0.0	0.000E+00	0.000E+00	7.524E-07			
D	9.2	17.99	7300.	67.	85.	453.5	111.1	0.0	0.000E+00	0.000E+00	5.084E-07			
D	12.0	11.96	7300.	67.	85.	453.5	111.1	0.0	0.000E+00	0.000E+00	3.919E-07			
D	27.5	4.03	7300.	67.	85.	453.5	111.1	0.0	0.000E+00	0.000E+00	1.710E-07			
E	0.3	0.01	7300.	67.	85.	322.5	67.5	0.0	0.000E+00	0.000E+00	2.350E-05			
E	2.0	0.96	7300.	67.	85.	322.5	67.5	0.0	0.000E+00	0.000E+00	3.357E-06			
E	4.2	3.68	7300.	67.	85.	322.5	67.5	0.0	0.000E+00	0.000E+00	1.567E-06			
E	7.0	9.45	7300.	67.	85.	322.5	67.5	0.0	0.000E+00	0.000E+00	9.399E-07			
E	10.3	15.56	7300.	67.	85.	322.5	67.5	0.0	0.000E+00	0.000E+00	6.351E-07			
E	13.4	2.96	7300.	67.	85.	322.5	67.5	0.0	0.000E+00	0.000E+00	4.895E-07			
E	30.7	0.32	7300.	67.	85.	322.5	67.5	0.0	0.000E+00	0.000E+00	2.136E-07			
F	0.3	0.01	10000.	67.	85.	295.8	46.1	0.0	0.000E+00	0.000E+00	1.504E-05			
F	2.0	0.75	10000.	67.	85.	295.8	46.1	0.0	0.000E+00	0.000E+00	2.149E-06			
F	4.2	1.76	10000.	67.	85.	295.8	46.1	0.0	0.000E+00	0.000E+00	1.003E-06			
F	7.0	3.74	10000.	67.	85.	295.8	46.1	0.0	0.000E+00	0.000E+00	6.017E-07			
F	10.3	3.68	10000.	67.	85.	295.8	46.1	0.0	0.000E+00	0.000E+00	4.066E-07			
F	13.4	0.48	10000.	67.	85.	295.8	46.1	0.0	0.000E+00	0.000E+00	3.134E-07			

G	2.0	0.37	90000.	67.	85.	1000.0	46.0	0.0	0.000E+00	0.000E+00	6.316E-07
G	4.2	0.93	90000.	67.	85.	1000.0	46.0	0.0	0.000E+00	0.000E+00	2.947E-07
G	7.0	1.17	90000.	67.	85.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.768E-07
G	10.3	1.04	90000.	67.	85.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.195E-07
G	13.4	0.05	90000.	67.	85.	1000.0	46.0	0.0	0.000E+00	0.000E+00	9.210E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 1066 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1 96.3 meters

LOW POPULATION ZONE CALCULATIONS:

ESE SECTOR BOUNDARY DISTANCE = 7300.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

2.350E-05	1.881E-05	1.504E-05	3.357E-06	2.687E-06	2.149E-06	1.567E-06	1.254E-06	1.003E-06	9.399E-07
0.007	0.009	0.018	0.979	1.993	2.740	6.423	9.012	10.774	20.222
0.00060	0.00080	0.00155	0.08552	0.17416	0.23947	0.56136	0.78761	0.94156	1.76727
7.524E-07	6.351E-07	6.316E-07	6.017E-07	5.084E-07	4.895E-07	4.066E-07	3.919E-07	3.437E-07	3.134E-07
29.697	45.258	45.632	49.368	67.358	70.320	74.004	85.961	86.094	86.575
2.59532	3.95518	3.98784	4.31439	5.88651	6.14542	6.46731	7.51228	7.52394	7.56593
2.947E-07	2.136E-07	2.062E-07	1.768E-07	1.710E-07	1.393E-07	1.195E-07	1.074E-07	1.037E-07	9.210E-08
87.509	87.829	88.523	89.697	93.728	95.302	96.343	97.144	97.224	97.278
7.64757	7.67556	7.73620	7.83883	8.19104	8.32866	8.41963	8.48961	8.49660	8.50127
6.219E-08	5.076E-08	4.686E-08	4.202E-08	3.430E-08	3.239E-08	2.644E-08	1.413E-08	1.154E-08	
97.518	97.758	98.479	99.012	99.253	99.626	99.680	99.867	100.000	
8.52226	8.54326	8.60623	8.65288	8.67388	8.70653	8.71120	8.72752	8.73919	

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 2.350E-05 DISTANCE = 7300.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2) = 1.765

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3) = 3.952

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (4) = 5.883
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (5) = 6.142
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (6) = 7.508
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (7) = 8.187
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (8) = 8.325

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
14	1	-10.65860	-16.85747	-1.41580
14	2	-13.87747	-16.24515	-1.12488
14	3	-14.26952	-16.30888	-1.16117
14	4	-14.49200	-17.21737	-1.74179
14	5	-14.52980	-17.82863	-2.13793
14	6	-14.75228	-40.49491	-17.89008
14	7	-15.58156	-47.14008	-22.66192
14	8	-15.78646	NUMXQ(K) = 8	
		4.015E-06	0.087	1.000
		2.487E-06	0.262	3.000
		1.956E-06	0.437	5.000
		1.382E-06	0.874	10.000
		1.112E-06	1.311	15.000
		9.459E-07	1.748	20.000
		8.519E-07	2.185	25.000
		7.808E-07	2.622	30.000
		7.239E-07	3.059	35.000
		6.768E-07	3.496	40.000
		6.370E-07	3.933	45.000
		6.016E-07	4.370	50.000
		5.707E-07	4.807	55.000
		5.434E-07	5.244	60.000
		5.190E-07	5.680	65.000
		4.915E-07	6.117	70.000
		4.563E-07	6.554	75.000
		4.249E-07	6.991	80.000
		3.969E-07	7.428	85.000
		2.529E-07	7.865	90.000
		1.832E-06	0.5	5.72

ANNUAL AVERAGE = 2.38E-08

K= 14 FIVEXQ(K)= 1.832E-06 FIVEPR(K)= 5.721

FUMIGATION X/Q AT THE BOUNDARY: 1.05E-05

EXPONENTIAL TERM AND FREQUENCIES

9.964E-01	9.961E-01	9.742E-01	7.443E-01	4.488E-01	1.802E-01	1.786E-01
0.667	2.082	6.005	53.063	86.006	96.423	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1068 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE SE SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 152.4 METERS												CA=1292.SQ.METERS		
A	6.2	0.04	7300.	43.	109.		1000.0	1000.0	0.0	0.000E+00	0.000E+00	5.064E-08		
A	9.2	0.06	7300.	43.	109.		1000.0	1000.0	0.0	0.000E+00	0.000E+00	3.422E-08		
A	27.5	0.02	7300.	43.	109.		1000.0	1000.0	0.0	0.000E+00	0.000E+00	1.151E-08		
B	3.7	0.08	7300.	43.	109.		848.1	962.0	0.0	0.000E+00	0.000E+00	1.034E-07		
B	6.2	0.04	7300.	43.	109.		848.1	962.0	0.0	0.000E+00	0.000E+00	6.204E-08		
B	9.2	0.19	7300.	43.	109.		848.1	962.0	0.0	0.000E+00	0.000E+00	4.192E-08		
B	12.0	0.08	7300.	43.	109.		848.1	962.0	0.0	0.000E+00	0.000E+00	3.231E-08		
C	3.7	0.06	7300.	43.	109.		644.0	373.7	0.0	0.000E+00	0.000E+00	3.380E-07		
C	6.2	0.55	7300.	43.	109.		644.0	373.7	0.0	0.000E+00	0.000E+00	2.028E-07		
C	9.2	0.74	7300.	43.	109.		644.0	373.7	0.0	0.000E+00	0.000E+00	1.370E-07		
C	12.0	0.59	7300.	43.	109.		644.0	373.7	0.0	0.000E+00	0.000E+00	1.056E-07		
C	27.5	0.13	7300.	43.	109.		644.0	373.7	0.0	0.000E+00	0.000E+00	4.609E-08		
D	0.2	0.00	7300.	43.	109.		453.5	111.1	0.0	0.000E+00	0.000E+00	1.557E-05		
D	1.7	0.76	7300.	43.	109.		453.5	111.1	0.0	0.000E+00	0.000E+00	2.224E-06		
D	3.7	4.10	7300.	43.	109.		453.5	111.1	0.0	0.000E+00	0.000E+00	1.038E-06		
D	6.2	11.52	7300.	43.	109.		453.5	111.1	0.0	0.000E+00	0.000E+00	6.227E-07		
D	9.2	22.08	7300.	43.	109.		453.5	111.1	0.0	0.000E+00	0.000E+00	4.207E-07		
D	12.0	11.54	7300.	43.	109.		453.5	111.1	0.0	0.000E+00	0.000E+00	3.243E-07		
D	27.5	3.91	7300.	43.	109.		453.5	111.1	0.0	0.000E+00	0.000E+00	1.415E-07		
E	0.3	0.01	7300.	43.	109.		322.5	67.5	0.0	0.000E+00	0.000E+00	1.406E-05		
E	2.0	0.83	7300.	43.	109.		322.5	67.5	0.0	0.000E+00	0.000E+00	2.009E-06		
E	4.2	3.61	7300.	43.	109.		322.5	67.5	0.0	0.000E+00	0.000E+00	9.374E-07		
E	7.0	11.03	7300.	43.	109.		322.5	67.5	0.0	0.000E+00	0.000E+00	5.624E-07		
E	10.3	13.83	7300.	43.	109.		322.5	67.5	0.0	0.000E+00	0.000E+00	3.800E-07		
E	13.4	1.89	7300.	43.	109.		322.5	67.5	0.0	0.000E+00	0.000E+00	2.929E-07		
E	30.7	0.13	7300.	43.	109.		322.5	67.5	0.0	0.000E+00	0.000E+00	1.278E-07		
F	0.3	0.01	20000.	43.	109.		553.1	58.7	0.0	0.000E+00	0.000E+00	6.182E-06		
F	2.0	0.55	20000.	43.	109.		553.1	58.7	0.0	0.000E+00	0.000E+00	8.832E-07		
F	4.2	2.00	20000.	43.	109.		553.1	58.7	0.0	0.000E+00	0.000E+00	4.121E-07		
F	7.0	3.78	20000.	43.	109.		553.1	58.7	0.0	0.000E+00	0.000E+00	2.473E-07		
F	10.3	1.91	20000.	43.	109.		553.1	58.7	0.0	0.000E+00	0.000E+00	1.671E-07		
G	2.0	0.28	90000.	43.	109.		1000.0	46.0	0.0	0.000E+00	0.000E+00	2.093E-07		
G	4.2	1.49	90000.	43.	109.		1000.0	46.0	0.0	0.000E+00	0.000E+00	9.768E-08		

G	7.0	1.95	90000.	43.	109.	1000.0	46.0	0.0	0.000E+00	0.000E+00	5.861E-08
G	10.3	0.19	90000.	43.	109.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.960E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 1070 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION:

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1 96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

SE SECTOR BOUNDARY DISTANCE = 7300.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.
THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.
THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.557E-05	1.406E-05	6.182E-06	2.224E-06	2.009E-06	1.038E-06	9.374E-07	8.832E-07	6.227E-07	5.624E-07
0.002	0.008	0.014	0.779	1.607	5.708	9.320	9.872	21.388	32.415
0.00019	0.00084	0.00154	0.08551	0.17648	0.62665	1.02318	1.08383	2.34806	3.55864
4.207E-07	4.121E-07	3.800E-07	3.380E-07	3.243E-07	2.929E-07	2.473E-07	2.093E-07	2.028E-07	1.671E-07
54.490	56.487	70.319	70.382	81.919	83.810	87.592	87.868	88.421	90.333
5.98213	6.20139	7.71986	7.72686	8.99342	9.20101	9.61620	9.64653	9.70717	9.91710
1.415E-07	1.370E-07	1.278E-07	1.056E-07	1.034E-07	9.768E-08	6.204E-08	5.861E-08	5.064E-08	4.609E-08
94.242	94.986	95.113	95.708	95.793	97.280	97.323	99.278	99.320	99.448
10.34628	10.42792	10.44192	10.50723	10.51656	10.67984	10.68450	10.89909	10.90376	10.91775
4.192E-08	3.960E-08	3.422E-08	3.231E-08	1.151E-08					
99.639	99.830	99.894	99.979	100.000					
10.93875	10.95974	10.96673	10.97606	10.97840					

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 1.667E-05 DISTANCE = 5000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 5.978
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 8.990

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(6)= 9.613
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(7)= 10.425
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(8)= 10.677

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
15	1	-11.07039	-12.54937	-0.31996
15	2	-11.17214	-16.66923	-1.27709
15	3	-14.68131	-15.87962	-0.76982
15	4	-14.78306	-17.50198	-1.90878
15	5	-14.94160	-24.65251	-7.23953
15	6	-15.21271	-31.86936	-12.77423
15	7	-15.80320	-46.61663	-24.49982
15	8	-16.14160	NUMXQ(K)= 8	
		2.880E-06	0.110	1.000
		1.853E-06	0.329	3.000
		1.484E-06	0.549	5.000
		1.076E-06	1.098	10.000
		8.787E-07	1.647	15.000
		7.558E-07	2.196	20.000
		6.693E-07	2.745	25.000
		6.040E-07	3.294	30.000
		5.523E-07	3.842	35.000
		5.100E-07	4.391	40.000
		4.746E-07	4.940	45.000
		4.444E-07	5.489	50.000
		4.192E-07	6.038	55.000
		4.051E-07	6.587	60.000
		3.924E-07	7.136	65.000
		3.807E-07	7.685	70.000
		3.557E-07	8.234	75.000
		3.325E-07	8.783	80.000
		2.794E-07	9.332	85.000
		2.032E-07	9.881	90.000
		1.547E-06	0.5	4.55

ANNUAL AVERAGE = 2.24E-08

K= 15 FIVEXQ(K)= 1.547E-06 FIVEPR(K)= 4.554

FUMIGATION X/Q AT THE BOUNDARY: 8.19E-06

EXPONENTIAL TERM AND FREQUENCIES

9.940E-01	9.936E-01	9.581E-01	6.159E-01	2.686E-01	1.763E-01	5.918E-02
0.127	0.531	2.613	56.517	87.841	96.091	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 1072 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE SSE SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 152.4 METERS												CA=1292.SQ.METERS		
A	3.7	0.02	7300.	43.	109.	1000.0	1000.0	0.0	0.000E+00	0.000E+00	8.440E-08			
A	6.2	0.17	7300.	43.	109.	1000.0	1000.0	0.0	0.000E+00	0.000E+00	5.064E-08			
A	9.2	0.32	7300.	43.	109.	1000.0	1000.0	0.0	0.000E+00	0.000E+00	3.422E-08			
A	12.0	0.02	7300.	43.	109.	1000.0	1000.0	0.0	0.000E+00	0.000E+00	2.638E-08			
A	27.5	0.02	7300.	43.	109.	1000.0	1000.0	0.0	0.000E+00	0.000E+00	1.151E-08			
B	3.7	0.06	7300.	43.	109.	848.1	962.0	0.0	0.000E+00	0.000E+00	1.034E-07			
B	6.2	0.48	7300.	43.	109.	848.1	962.0	0.0	0.000E+00	0.000E+00	6.204E-08			
B	9.2	0.71	7300.	43.	109.	848.1	962.0	0.0	0.000E+00	0.000E+00	4.192E-08			
B	12.0	0.11	7300.	43.	109.	848.1	962.0	0.0	0.000E+00	0.000E+00	3.231E-08			
C	3.7	0.48	7300.	43.	109.	644.0	373.7	0.0	0.000E+00	0.000E+00	3.380E-07			
C	6.2	2.16	7300.	43.	109.	644.0	373.7	0.0	0.000E+00	0.000E+00	2.028E-07			
C	9.2	2.01	7300.	43.	109.	644.0	373.7	0.0	0.000E+00	0.000E+00	1.370E-07			
C	12.0	0.37	7300.	43.	109.	644.0	373.7	0.0	0.000E+00	0.000E+00	1.056E-07			
D	0.2	0.00	7300.	43.	109.	453.5	111.1	0.0	0.000E+00	0.000E+00	1.557E-05			
D	1.7	1.08	7300.	43.	109.	453.5	111.1	0.0	0.000E+00	0.000E+00	2.224E-06			
D	3.7	8.31	7300.	43.	109.	453.5	111.1	0.0	0.000E+00	0.000E+00	1.038E-06			
D	6.2	20.04	7300.	43.	109.	453.5	111.1	0.0	0.000E+00	0.000E+00	6.227E-07			
D	9.2	19.82	7300.	43.	109.	453.5	111.1	0.0	0.000E+00	0.000E+00	4.207E-07			
D	12.0	5.23	7300.	43.	109.	453.5	111.1	0.0	0.000E+00	0.000E+00	3.243E-07			
D	27.5	1.36	7300.	43.	109.	453.5	111.1	0.0	0.000E+00	0.000E+00	1.415E-07			
E	0.3	0.01	7300.	43.	109.	322.5	67.5	0.0	0.000E+00	0.000E+00	1.406E-05			
E	2.0	0.73	7300.	43.	109.	322.5	67.5	0.0	0.000E+00	0.000E+00	2.009E-06			
E	4.2	4.38	7300.	43.	109.	322.5	67.5	0.0	0.000E+00	0.000E+00	9.374E-07			
E	7.0	11.10	7300.	43.	109.	322.5	67.5	0.0	0.000E+00	0.000E+00	5.624E-07			
E	10.3	10.11	7300.	43.	109.	322.5	67.5	0.0	0.000E+00	0.000E+00	3.800E-07			
E	13.4	0.93	7300.	43.	109.	322.5	67.5	0.0	0.000E+00	0.000E+00	2.929E-07			
E	30.7	0.22	7300.	43.	109.	322.5	67.5	0.0	0.000E+00	0.000E+00	1.278E-07			
F	0.3	0.01	20000.	43.	109.	553.1	58.7	0.0	0.000E+00	0.000E+00	6.182E-06			
F	2.0	0.48	20000.	43.	109.	553.1	58.7	0.0	0.000E+00	0.000E+00	8.832E-07			
F	4.2	2.09	20000.	43.	109.	553.1	58.7	0.0	0.000E+00	0.000E+00	4.121E-07			
F	7.0	2.72	20000.	43.	109.	553.1	58.7	0.0	0.000E+00	0.000E+00	2.473E-07			
F	10.3	0.69	20000.	43.	109.	553.1	58.7	0.0	0.000E+00	0.000E+00	1.671E-07			
F	13.4	0.11	20000.	43.	109.	553.1	58.7	0.0	0.000E+00	0.000E+00	1.288E-07			

Calculation No. PM-1055 Revision 0**Attachment J****Page 1073 of 1411**

G	2.0	0.41	90000.	43.	109.	1000.0	46.0	0.0	0.000E+00	0.000E+00	2.093E-07
G	4.2	1.27	90000.	43.	109.	1000.0	46.0	0.0	0.000E+00	0.000E+00	9.768E-08
G	7.0	1.84	90000.	43.	109.	1000.0	46.0	0.0	0.000E+00	0.000E+00	5.861E-08
G	10.3	0.11	90000.	43.	109.	1000.0	46.0	0.0	0.000E+00	0.000E+00	3.960E-08
G	30.7	0.02	90000.	43.	109.	1000.0	46.0	0.0	0.000E+00	0.000E+00	1.332E-08

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1074 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1 96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

SSE SECTOR BOUNDARY DISTANCE = 7300.0 METERS

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.557E-05	1.406E-05	6.182E-06	2.224E-06	2.009E-06	1.038E-06	9.374E-07	8.832E-07	6.227E-07	5.624E-07
0.002	0.008	0.013	1.093	1.827	10.141	14.525	15.000	35.041	46.141
0.00026	0.00083	0.00142	0.11805	0.19735	1.09537	1.56888	1.62019	3.78478	4.98369
4.207E-07	4.121E-07	3.800E-07	3.380E-07	3.243E-07	2.929E-07	2.473E-07	2.093E-07	2.028E-07	1.671E-07
65.966	68.060	78.167	78.642	83.868	84.797	87.518	87.928	90.088	90.779
7.12495	7.35120	8.44283	8.49414	9.05861	9.15891	9.45281	9.49713	9.73038	9.80502
1.415E-07	1.370E-07	1.288E-07	1.278E-07	1.056E-07	1.034E-07	9.768E-08	8.440E-08	6.204E-08	5.861E-08
92.139	94.148	94.256	94.472	94.839	94.903	96.178	96.199	96.674	98.510
9.95197	10.16890	10.18056	10.20388	10.24354	10.25053	10.38815	10.39049	10.44180	10.64007
5.064E-08	4.192E-08	3.960E-08	3.422E-08	3.231E-08	2.638E-08	1.332E-08	1.151E-08		
98.683	99.395	99.503	99.827	99.935	99.957	99.978	100.000		
10.65873	10.73570	10.74736	10.78235	10.79401	10.79634	10.79868	10.80101		

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.

THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 2.070E-05 DISTANCE = 4000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 4.980
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 8.439

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 9.055
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(6)= 9.449
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(7)= 9.727
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(8)= 10.166
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(9)= 10.385

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
16	1	-11.07039	-12.94662	-0.41201
16	2	-11.17214	-16.38376	-1.21007
16	3	-14.39102	-16.77623	-1.44840
16	4	-14.78306	-20.41233	-4.09068
16	5	-14.94160	-30.18060	-11.39479
16	6	-15.21271	-31.18759	-12.16139
16	7	-15.41115	-35.67481	-15.62040
16	8	-15.80320	-50.93329	-27.61458
16	9	-16.14160	NUMXQ(K)= 9	
		3.138E-06	0.108	1.000
		2.068E-06	0.324	3.000
		1.677E-06	0.540	5.000
		1.236E-06	1.080	10.000
		1.021E-06	1.620	15.000
		8.858E-07	2.160	20.000
		7.896E-07	2.700	25.000
		7.166E-07	3.240	30.000
		6.585E-07	3.780	35.000
		6.108E-07	4.320	40.000
		5.707E-07	4.860	45.000
		5.313E-07	5.401	50.000
		4.961E-07	5.941	55.000
		4.653E-07	6.481	60.000
		4.382E-07	7.021	65.000
		4.142E-07	7.561	70.000
		3.926E-07	8.101	75.000
		3.608E-07	8.641	80.000
		2.979E-07	9.181	85.000
		2.041E-07	9.721	90.000
		1.732E-06	0.5	4.63

ANNUAL AVERAGE = 2.63E-08

K= 16 FIVEXQ(K)= 1.732E-06 FIVEPR(K)= 4.629

FUMIGATION X/Q AT THE BOUNDARY: 8.19E-06

EXPONENTIAL TERM AND FREQUENCIES

9.940E-01	9.936E-01	9.581E-01	6.159E-01	2.686E-01	1.763E-01	5.918E-02
0.561	1.922	6.932	62.780	90.255	96.350	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1076 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE ALL SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 152.4 METERS												CA=1292.SQ.METERS		
A	1.7	0.01	90000.	128.	24.	1000.0	1000.0	0.0	0.000E+00	0.000E+00	1.819E-07			
A	3.7	0.51	90000.	128.	24.	1000.0	1000.0	0.0	0.000E+00	0.000E+00	8.488E-08			
A	6.2	0.53	90000.	128.	24.	1000.0	1000.0	0.0	0.000E+00	0.000E+00	5.093E-08			
A	9.2	0.28	90000.	128.	24.	1000.0	1000.0	0.0	0.000E+00	0.000E+00	3.441E-08			
A	12.0	0.06	90000.	128.	24.	1000.0	1000.0	0.0	0.000E+00	0.000E+00	2.653E-08			
A	27.5	0.03	90000.	128.	24.	1000.0	1000.0	0.0	0.000E+00	0.000E+00	1.157E-08			
B	1.7	0.05	7300.	118.	34.	848.1	962.0	0.0	0.000E+00	0.000E+00	2.228E-07			
B	3.7	0.47	7300.	118.	34.	848.1	962.0	0.0	0.000E+00	0.000E+00	1.040E-07			
B	6.2	0.54	7300.	118.	34.	848.1	962.0	0.0	0.000E+00	0.000E+00	6.240E-08			
B	9.2	0.44	7300.	118.	34.	848.1	962.0	0.0	0.000E+00	0.000E+00	4.216E-08			
B	12.0	0.12	7300.	118.	34.	848.1	962.0	0.0	0.000E+00	0.000E+00	3.250E-08			
B	27.5	0.03	7300.	118.	34.	848.1	962.0	0.0	0.000E+00	0.000E+00	1.418E-08			
C	1.7	0.08	7300.	118.	34.	644.0	373.7	0.0	0.000E+00	0.000E+00	7.528E-07			
C	3.7	0.77	7300.	118.	34.	644.0	373.7	0.0	0.000E+00	0.000E+00	3.513E-07			
C	6.2	1.33	7300.	118.	34.	644.0	373.7	0.0	0.000E+00	0.000E+00	2.108E-07			
C	9.2	1.04	7300.	118.	34.	644.0	373.7	0.0	0.000E+00	0.000E+00	1.424E-07			
C	12.0	0.30	7300.	118.	34.	644.0	373.7	0.0	0.000E+00	0.000E+00	1.098E-07			
C	27.5	0.13	7300.	118.	34.	644.0	373.7	0.0	0.000E+00	0.000E+00	4.790E-08			
D	0.2	0.00	7300.	118.	34.	453.5	111.1	0.0	0.000E+00	0.000E+00	2.410E-05			
D	1.7	2.07	7300.	118.	34.	453.5	111.1	0.0	0.000E+00	0.000E+00	3.444E-06			
D	3.7	9.39	7300.	118.	34.	453.5	111.1	0.0	0.000E+00	0.000E+00	1.607E-06			
D	6.2	15.72	7300.	118.	34.	453.5	111.1	0.0	0.000E+00	0.000E+00	9.642E-07			
D	9.2	12.23	7300.	118.	34.	453.5	111.1	0.0	0.000E+00	0.000E+00	6.515E-07			
D	12.0	4.24	7300.	118.	34.	453.5	111.1	0.0	0.000E+00	0.000E+00	5.022E-07			
D	27.5	1.39	7300.	118.	34.	453.5	111.1	0.0	0.000E+00	0.000E+00	2.191E-07			
E	0.3	0.01	7300.	118.	34.	322.5	67.5	0.0	0.000E+00	0.000E+00	4.604E-05			
E	2.0	1.97	7300.	118.	34.	322.5	67.5	0.0	0.000E+00	0.000E+00	6.578E-06			
E	4.2	8.90	7300.	118.	34.	322.5	67.5	0.0	0.000E+00	0.000E+00	3.070E-06			
E	7.0	13.85	7300.	118.	34.	322.5	67.5	0.0	0.000E+00	0.000E+00	1.842E-06			
E	10.3	9.53	7300.	118.	34.	322.5	67.5	0.0	0.000E+00	0.000E+00	1.244E-06			
E	13.4	1.29	7300.	118.	34.	322.5	67.5	0.0	0.000E+00	0.000E+00	9.592E-07			
E	30.7	0.23	7300.	118.	34.	322.5	67.5	0.0	0.000E+00	0.000E+00	4.186E-07			
F	0.3	0.01	8000.	128.	24.	241.8	42.4	0.0	0.000E+00	0.000E+00	9.416E-05			
F	2.0	1.01	8000.	128.	24.	241.8	42.4	0.0	0.000E+00	0.000E+00	1.345E-05			

Calculation No. PM-1055 Revision 0
Attachment J
Page 1077 of 1411

F	4.2	3.14	8000.	128.	24.	241.8	42.4	0.0	0.000E+00	0.000E+00	6.277E-06
F	7.0	3.52	8000.	128.	24.	241.8	42.4	0.0	0.000E+00	0.000E+00	3.766E-06
F	10.3	1.55	8000.	128.	24.	241.8	42.4	0.0	0.000E+00	0.000E+00	2.545E-06
F	13.4	0.16	8000.	128.	24.	241.8	42.4	0.0	0.000E+00	0.000E+00	1.962E-06
F	30.7	0.01	8000.	128.	24.	241.8	42.4	0.0	0.000E+00	0.000E+00	8.560E-07
G	2.0	0.43	8000.	128.	24.	166.9	25.6	0.0	0.000E+00	0.000E+00	2.419E-05
G	4.2	1.17	8000.	128.	24.	166.9	25.6	0.0	0.000E+00	0.000E+00	1.129E-05
G	7.0	1.14	8000.	128.	24.	166.9	25.6	0.0	0.000E+00	0.000E+00	6.772E-06
G	10.3	0.31	8000.	128.	24.	166.9	25.6	0.0	0.000E+00	0.000E+00	4.576E-06
G	13.4	0.01	8000.	128.	24.	166.9	25.6	0.0	0.000E+00	0.000E+00	3.527E-06
G	30.7	0.00	8000.	128.	24.	166.9	25.6	0.0	0.000E+00	0.000E+00	1.539E-06

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 1078 of 1411**

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1-96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

DIRECTION-INDEPENDENT (S.R.P 2.3.4) MODEL.

MINIMUM BOUNDARY DISTANCE = 7300.0 METERS.

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.
THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.
THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

9.416E-05	4.604E-05	2.419E-05	2.410E-05	1.345E-05	1.129E-05	6.772E-06	6.578E-06	6.277E-06	4.576E-06
0.012	0.026	0.460	0.464	1.474	2.647	3.783	5.750	8.892	9.199
0.01166	0.02566	0.45951	0.46417	1.47416	2.64742	3.78335	5.74967	8.89158	9.19948
3.766E-06	3.527E-06	3.444E-06	3.070E-06	2.545E-06	1.962E-06	1.842E-06	1.607E-06	1.539E-06	1.244E-06
12.717	12.726	14.793	23.689	25.243	25.404	39.249	48.640	48.645	58.171
12.71692	12.72625	14.79287	23.68912	25.24258	25.40352	39.24939	48.64013	48.64480	58.17083
9.642E-07	9.592E-07	8.560E-07	7.528E-07	6.515E-07	5.022E-07	4.186E-07	3.513E-07	2.228E-07	2.191E-07
73.890	75.184	75.196	75.273	87.502	91.743	91.971	92.736	92.783	94.171
73.88971	75.18427	75.19593	75.27290	87.50233	91.74286	91.97144	92.73651	92.78316	94.17102
2.108E-07	1.819E-07	1.424E-07	1.098E-07	1.040E-07	8.488E-08	6.240E-08	5.093E-08	4.790E-08	4.216E-08
95.501	95.508	96.550	96.853	97.325	97.838	98.381	98.913	99.039	99.480
95.50056	95.50755	96.55020	96.85343	97.32460	97.83775	98.38123	98.91305	99.03900	99.47985
3.441E-08	3.250E-08	2.653E-08	1.418E-08	1.157E-08					
99.757	99.879	99.937	99.972	100.000					
99.75742	99.87872	99.93703	99.97202	100.00000					

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 9.416E-05 DISTANCE = 8000.000

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS

Calculation No. PM-1055 Revision 0

SEC/CUBIC METER THE TOTAL TIME

INTO THIS SECTOR ONLY

Attachment J

Page 1079 of 1411

ERROR IN NORMAL TRANSFORMATION FOR A(45)= 100.00000

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 8.888

1.956E-05	1.000	1.000
1.166E-05	3.000	3.000
8.867E-06	5.000	5.000
5.862E-06	10.000	10.000
4.545E-06	15.000	15.000
3.713E-06	20.000	20.000
3.122E-06	25.000	25.000
2.671E-06	30.000	30.000
2.312E-06	35.000	35.000
2.017E-06	40.000	40.000
1.767E-06	45.000	45.000
1.568E-06	50.000	50.000
1.432E-06	55.000	55.000
1.306E-06	60.000	60.000
1.187E-06	65.000	65.000
1.074E-06	70.000	70.000
9.633E-07	75.000	75.000
8.400E-07	80.000	80.000
7.156E-07	85.000	85.000
5.643E-07	90.000	90.000
8.867E-06	5.0	5.00

K= 17 FIVEXQ(K)= 8.867E-06 FIVEPR(K)= 5.000

FUMIGATION X/Q AT THE BOUNDARY: 7.33E-06

EXPONENTIAL TERM AND FREQUENCIES

9.997E-01	9.994E-01	9.958E-01	9.538E-01	8.795E-01	8.474E-01	6.339E-01
1.416	3.074	6.718	51.756	87.528	96.935	100.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1080 of 1411

RUN DATE: 12/29/02

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 97.5 meters

TYPE OF RELEASE: Stack Release

DELTA-T HEIGHTS: 10.1 96.3 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

FIVE PERCENT OVERALL SITE LIMIT

BUILDING WAKE CREDIT IS NOT INCLUDED.

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.047E-04	7.311E-05	6.213E-05	5.167E-05	4.904E-05	4.297E-05	4.048E-05	3.782E-05	3.220E-05	3.179E-05
0.001	0.001	0.003	0.003	0.004	0.005	0.007	0.008	0.011	0.014
0.00059	0.00121	0.00267	0.00329	0.00388	0.00505	0.00707	0.00807	0.01065	0.01354
2.632E-05	2.619E-05	2.467E-05	2.350E-05	2.350E-05	2.299E-05	2.242E-05	2.103E-05	2.091E-05	1.958E-05
0.039	0.040	0.041	0.041	0.042	0.043	0.044	0.044	0.045	0.046
0.03920	0.04020	0.04076	0.04098	0.04247	0.04334	0.04379	0.04426	0.04499	0.04560
1.924E-05	1.881E-05	1.847E-05	1.802E-05	1.721E-05	1.626E-05	1.581E-05	1.557E-05	1.504E-05	1.496E-05
0.046	0.047	0.048	0.048	0.048	0.048	0.049	0.050	0.051	0.103
0.04644	0.04671	0.04771	0.04802	0.04833	0.04846	0.04936	0.04981	0.05146	0.10277
1.406E-05	1.228E-05	1.172E-05	1.044E-05	9.908E-06	8.984E-06	8.875E-06	7.382E-06	7.370E-06	7.219E-06
0.104	0.155	0.156	0.209	0.249	0.250	0.376	0.429	0.439	0.440
0.10398	0.15530	0.15581	0.20946	0.24911	0.24981	0.37577	0.42942	0.43875	0.43955
7.006E-06	6.980E-06	6.365E-06	6.182E-06	6.139E-06	5.782E-06	5.403E-06	4.874E-06	4.624E-06	4.600E-06
0.524	0.603	0.635	0.637	0.800	1.085	1.225	1.537	1.616	1.840
0.52353	0.60283	0.63549	0.63678	0.80006	1.08462	1.22458	1.53713	1.61644	1.84036
4.541E-06	4.188E-06	4.142E-06	4.048E-06	3.742E-06	3.524E-06	3.445E-06	3.357E-06	3.357E-06	3.284E-06
2.246	2.277	2.533	2.545	2.685	2.937	3.058	3.154	3.363	3.746
2.24622	2.27654	2.53312	2.54478	2.68474	2.93665	3.05794	3.15357	3.36350	3.74603
3.269E-06	3.203E-06	3.004E-06	2.988E-06	2.970E-06	2.924E-06	2.865E-06	2.830E-06	2.797E-06	2.774E-06
4.096	4.297	4.506	4.609	4.719	5.022	6.037	6.039	6.307	6.330
4.09591	4.29651	4.50644	4.60907	4.71870	5.02193	6.03657	6.03891	6.30715	6.33047
2.749E-06	2.698E-06	2.687E-06	2.638E-06	2.574E-06	2.522E-06	2.485E-06	2.459E-06	2.322E-06	2.259E-06
6.403	7.718	7.842	7.982	8.117	8.584	8.714	8.852	8.913	9.039
6.40278	7.71832	7.84195	7.98190	8.11719	8.58369	8.71431	8.85193	8.91258	9.03854
2.224E-06	2.149E-06	2.146E-06	2.119E-06	2.067E-06	2.009E-06	1.976E-06	1.962E-06	1.889E-06	1.875E-06
9.239	9.381	10.284	12.411	12.467	12.638	12.740	13.104	13.118	13.123

Calculation No. PM-1055 Revision 0
Attachment J
Page 1081 of 1411

9.23913	9.38142	10.28410	12.41136	12.46735	12.63762	12.74025	13.10412	13.11812	13.12278
1.782E-06	1.746E-06	1.719E-06	1.679E-06	1.675E-06	1.645E-06	1.628E-06	1.619E-06	1.567E-06	1.567E-06
13.146	13.806	15.884	15.901	15.945	16.500	16.556	17.606	18.306	19.064
13.14611	13.80621	15.88449	15.90082	15.94514	16.50028	16.55626	17.60589	18.30565	19.06372
1.532E-06	1.513E-06	1.495E-06	1.402E-06	1.397E-06	1.394E-06	1.325E-06	1.305E-06	1.288E-06	1.283E-06
20.638	21.238	21.947	23.321	23.325	23.708	23.768	24.783	25.592	25.653
20.63817	21.23763	21.94672	23.32058	23.32524	23.70778	23.76842	24.78307	25.59246	25.65310
1.283E-06	1.271E-06	1.254E-06	1.231E-06	1.204E-06	1.201E-06	1.161E-06	1.147E-06	1.133E-06	1.094E-06
25.732	28.937	29.462	30.010	30.013	30.505	31.708	32.478	32.483	32.737
25.73241	28.93730	29.46212	30.01026	30.01259	30.50476	31.70834	32.47807	32.48274	32.73698
1.084E-06	1.054E-06	1.048E-06	1.038E-06	1.031E-06	1.022E-06	1.022E-06	1.003E-06	9.869E-07	9.400E-07
33.066	33.469	33.845	35.193	35.263	35.410	35.429	35.856	36.441	38.092
33.06587	33.46939	33.84493	35.19313	35.26311	35.41006	35.42872	35.85557	36.44104	38.09246
9.399E-07	9.374E-07	9.194E-07	8.968E-07	8.952E-07	8.832E-07	8.702E-07	8.591E-07	8.432E-07	8.411E-07
39.611	40.481	42.244	42.963	43.112	43.224	43.387	44.808	44.854	47.602
39.61094	40.48097	42.24436	42.96278	43.11206	43.22402	43.38730	44.80781	44.85446	47.60217
8.365E-07	7.977E-07	7.880E-07	7.832E-07	7.816E-07	7.696E-07	7.598E-07	7.543E-07	7.524E-07	7.496E-07
48.071	48.101	48.150	48.922	49.011	49.041	49.221	49.249	50.569	50.604
48.07101	48.10133	48.15031	48.92238	49.01101	49.04134	49.22094	49.24893	50.56914	50.60413
7.390E-07	7.387E-07	7.336E-07	7.208E-07	7.079E-07	6.885E-07	6.708E-07	6.668E-07	6.622E-07	6.502E-07
50.606	51.462	51.474	52.288	52.423	53.639	53.646	53.844	53.956	54.658
50.60646	51.46249	51.47416	52.28821	52.42350	53.63874	53.64574	53.84400	53.95596	54.65805
6.351E-07	6.351E-07	6.325E-07	6.316E-07	6.227E-07	6.212E-07	6.059E-07	6.017E-07	5.990E-07	5.683E-07
55.782	57.774	58.696	58.770	62.199	62.731	63.057	63.797	64.028	64.984
55.78233	57.77431	58.69566	58.77029	62.19910	62.73092	63.05748	63.79689	64.02781	64.98415
5.652E-07	5.624E-07	5.457E-07	5.292E-07	5.140E-07	5.084E-07	4.991E-07	4.916E-07	4.896E-07	4.895E-07
65.073	67.482	67.510	67.818	67.848	69.864	70.228	70.260	70.491	70.820
65.07278	67.48228	67.51028	67.81817	67.84849	69.86378	70.22766	70.26031	70.49123	70.82012
4.870E-07	4.813E-07	4.789E-07	4.697E-07	4.690E-07	4.671E-07	4.652E-07	4.559E-07	4.458E-07	4.393E-07
71.179	71.378	71.436	71.438	71.497	71.557	72.481	72.663	72.665	73.586
71.17933	71.37759	71.43591	71.43824	71.49655	71.55720	72.48088	72.66281	72.66515	73.58649
4.381E-07	4.357E-07	4.274E-07	4.207E-07	4.121E-07	4.079E-07	4.066E-07	3.919E-07	3.907E-07	3.847E-07
73.687	73.705	74.956	79.520	79.966	80.041	80.617	81.713	81.727	81.781
73.68680	73.70546	74.95570	79.52045	79.96596	80.04060	80.61673	81.71301	81.72701	81.78065
3.800E-07	3.762E-07	3.754E-07	3.723E-07	3.680E-07	3.594E-07	3.586E-07	3.520E-07	3.505E-07	3.498E-07
84.391	84.416	84.479	84.510	84.540	84.729	84.899	84.965	85.009	85.128
84.39075	84.41640	84.47939	84.50970	84.54003	84.72897	84.89924	84.96455	85.00887	85.12782
3.490E-07	3.471E-07	3.449E-07	3.439E-07	3.437E-07	3.424E-07	3.410E-07	3.393E-07	3.386E-07	3.380E-07
85.279	85.335	85.452	85.461	85.480	85.531	85.604	85.615	86.140	86.198
85.27943	85.33542	85.45204	85.46137	85.48003	85.53135	85.60366	85.61533	86.14014	86.19846

3.294E-07	3.243E-07	3.169E-07	3.134E-07	3.080E-07	2.947E-07	2.929E-07	2.890E-07	2.888E-07	2.694E-07
86.380	88.211	88.214	88.298	88.321	88.482	88.790	88.809	89.270	89.301
86.38039	88.21143	88.21376	88.29773	88.32106	88.48201	88.78990	88.80856	89.27039	89.30071
2.473E-07	2.428E-07	2.381E-07	2.294E-07	2.243E-07	2.234E-07	2.229E-07	2.227E-07	2.222E-07	2.220E-07
90.010	90.019	90.066	90.110	90.138	90.143	90.147	90.173	90.185	90.189
90.00980	90.01913	90.06579	90.11011	90.13810	90.14276	90.14742	90.17308	90.18475	90.18941
2.136E-07	2.136E-07	2.112E-07	2.103E-07	2.099E-07	2.094E-07	2.093E-07	2.090E-07	2.082E-07	2.069E-07
90.257	90.287	90.308	90.476	90.661	90.721	90.796	90.817	91.024	91.057
90.25705	90.28738	90.30837	90.47631	90.66058	90.72122	90.79586	90.81685	91.02444	91.05710
2.062E-07	2.054E-07	2.046E-07	2.038E-07	2.036E-07	2.028E-07	1.951E-07	1.912E-07	1.901E-07	1.872E-07
91.178	91.223	91.321	91.325	91.423	91.717	92.109	92.153	92.156	92.158
91.17839	91.22271	91.32068	91.32534	91.42331	91.71721	92.10907	92.15339	92.15572	92.15806
1.814E-07	1.780E-07	1.768E-07	1.755E-07	1.749E-07	1.710E-07	1.679E-07	1.671E-07	1.638E-07	1.565E-07
92.165	92.184	92.450	92.559	92.569	92.935	92.951	93.236	93.252	93.287
92.16505	92.18372	92.44962	92.55925	92.56858	92.93478	92.95111	93.23568	93.25201	93.28699
1.504E-07	1.478E-07	1.437E-07	1.427E-07	1.421E-07	1.418E-07	1.415E-07	1.415E-07	1.407E-07	1.398E-07
93.343	93.553	93.574	93.583	93.739	93.772	94.348	94.358	94.486	94.493
93.34297	93.55290	93.57390	93.58323	93.73951	93.77216	94.34830	94.35763	94.48591	94.49290
1.393E-07	1.388E-07	1.382E-07	1.376E-07	1.375E-07	1.370E-07	1.288E-07	1.278E-07	1.257E-07	1.195E-07
94.703	94.721	94.763	94.775	94.906	95.204	95.216	95.253	95.347	95.498
94.70284	94.72150	94.76348	94.77515	94.90577	95.20434	95.21600	95.25332	95.34662	95.49823
1.095E-07	1.091E-07	1.085E-07	1.078E-07	1.074E-07	1.070E-07	1.066E-07	1.060E-07	1.056E-07	1.053E-07
95.519	95.524	95.536	95.538	95.617	95.619	95.629	95.696	95.801	95.839
95.51923	95.52389	95.53555	95.53789	95.61720	95.61953	95.62886	95.69650	95.80146	95.83878
1.040E-07	1.040E-07	1.039E-07	1.039E-07	1.038E-07	1.037E-07	1.037E-07	1.036E-07	1.035E-07	1.035E-07
95.881	95.888	95.969	96.037	96.060	96.191	96.200	96.254	96.284	96.294
95.88077	95.88776	95.96940	96.03704	96.06036	96.19099	96.20032	96.25397	96.28429	96.29362
1.034E-07	9.768E-08	9.210E-08	8.488E-08	8.481E-08	8.478E-08	8.471E-08	8.464E-08	8.455E-08	8.451E-08
96.310	96.611	96.618	96.671	96.772	96.874	96.888	97.091	97.112	97.126
96.30994	96.61084	96.61784	96.67149	96.77178	96.87441	96.88840	97.09132	97.11232	97.12631
8.445E-08	8.440E-08	7.544E-08	7.117E-08	6.242E-08	6.238E-08	6.236E-08	6.234E-08	6.228E-08	6.223E-08
97.129	97.131	97.292	97.294	97.325	97.383	97.481	97.539	97.621	97.649
97.12865	97.13098	97.29192	97.29426	97.32458	97.38289	97.48086	97.53917	97.62080	97.64880
6.219E-08	6.216E-08	6.212E-08	6.207E-08	6.204E-08	5.861E-08	5.097E-08	5.093E-08	5.090E-08	5.088E-08
97.688	97.723	97.733	97.782	97.838	98.251	98.342	98.388	98.416	98.530
97.68845	97.72344	97.73277	97.78175	97.83773	98.25059	98.34155	98.38821	98.41620	98.53049
5.087E-08	5.083E-08	5.078E-08	5.076E-08	5.073E-08	5.067E-08	5.064E-08	4.779E-08	4.733E-08	4.686E-08
98.633	98.666	98.773	98.810	98.831	98.850	98.873	98.876	98.878	98.943
98.63313	98.66578	98.77308	98.81040	98.83140	98.85006	98.87338	98.87572	98.87805	98.94337

Calculation No. PM-1055 Revision 0
Attachment J
Page 1083 of 1411

4.669E-08	4.650E-08	4.626E-08	4.609E-08	4.217E-08	4.215E-08	4.213E-08	4.212E-08	4.208E-08	4.204E-08
98.953	98.955	98.985	98.999	99.004	99.076	99.097	99.102	99.156	99.158
98.95270	98.95503	98.98535	98.99934	99.00401	99.07632	99.09731	99.10197	99.15562	99.15796
4.202E-08	4.200E-08	4.197E-08	4.194E-08	4.192E-08	3.960E-08	3.929E-08	3.441E-08	3.439E-08	3.438E-08
99.249	99.256	99.279	99.342	99.440	99.473	99.475	99.496	99.512	99.585
99.24893	99.25593	99.27925	99.34223	99.44020	99.47286	99.47520	99.49619	99.51252	99.58482
3.437E-08	3.434E-08	3.431E-08	3.430E-08	3.428E-08	3.426E-08	3.423E-08	3.422E-08	3.251E-08	3.249E-08
99.592	99.603	99.620	99.648	99.657	99.662	99.711	99.753	99.755	99.767
99.59182	99.60348	99.61980	99.64780	99.65713	99.66179	99.71077	99.75275	99.75509	99.76675
3.248E-08	3.247E-08	3.244E-08	3.239E-08	3.237E-08	3.235E-08	3.233E-08	3.231E-08	2.650E-08	2.649E-08
99.769	99.771	99.781	99.818	99.823	99.825	99.853	99.874	99.876	99.879
99.76909	99.77142	99.78075	99.81807	99.82273	99.82507	99.85306	99.87405	99.87639	99.87872
2.644E-08	2.642E-08	2.641E-08	2.639E-08	2.638E-08	1.715E-08	1.418E-08	1.413E-08	1.411E-08	1.332E-08
99.888	99.893	99.897	99.930	99.932	99.935	99.937	99.956	99.970	99.972
99.88805	99.89271	99.89737	99.93002	99.93236	99.93469	99.93703	99.95569	99.96968	99.97202
1.156E-08	1.154E-08	1.152E-08	1.151E-08						
99.974	99.991	99.995	100.000						
99.97435	99.99068	99.99534	100.00000						

BELOW IS PRINTED THE MAXIMUM VALUE OF CHI/Q AND THE DISTANCE IN METERS FROM THE STACK AT WHICH THE VALUE OCCURRED.
THIS DISTANCE MAY BE WITHIN THE SITE BOUNDARY.

CHI/Q = 9.416E-05 DISTANCE = 8000.000

X/Q PERCENTILES
(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED
CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

ERROR IN NORMAL TRANSFORMATION FOR A(404) = 100.00000

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(2) =	0.003
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(3) =	0.040
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(4) =	0.043
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(5) =	0.048
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(7) =	0.375
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(8) =	1.083
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(10) =	3.743
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(15) =	8.580
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(17) =	15.885

ERROR IN SUBROUTINE ENVELOP

K	HIGHPR	PR	GRNDVT (K)
1	-3.30147	0.04809	6.21119
2	-3.34185	0.04162	3.52599
3	-2.59207	0.47700	3.10868
4	-2.72395	0.32253	3.53145
5	-3.06853	0.10757	4.76778
6	-2.82888	0.23356	4.27759
7	-2.65892	0.39197	5.37148
8	-2.88272	0.19714	5.07527
9	-2.57624	0.49942	10.00153
10	-2.86388	0.20925	5.86355
11	-2.86718	0.20708	4.96796
12	-3.25998	0.05572	4.95848
13	-3.46991	0.02604	7.82046
14	-3.32552	0.04413	8.73919
15	-3.53931	0.02006	10.97840
16	-3.49941	0.02332	10.80101

K	HOURS (K)	TOTHR
1	4.21312	4.21312
2	3.64556	7.85868
3	41.78555	49.64423
4	28.25386	77.89809
5	9.42300	87.32109
6	20.45993	107.78100
7	34.33623	142.11720
8	17.26915	159.38640
9	43.74879	203.13520
10	18.33013	221.46530
11	18.14007	239.60540
12	4.88093	244.48630
13	2.28069	246.76700
14	3.86590	250.63290
15	1.75751	252.39040
16	2.04260	254.43300

K	FIVEXQ	SVANN	SLTIME	TIMINT	I	TIME	XQT
1	2.053E-06	2.221E-08	-0.5398	-12.7219	1	8.0	-13.84446
					2	16.0	-14.21865
					3	72.0	-15.03061
					4	624.0	-16.19640
2	1.833E-06	1.565E-08	-0.5681	-12.8156	1	8.0	-13.99686
					2	16.0	-14.39062
					3	72.0	-15.24505
					4	624.0	-16.47180
3	5.127E-06	3.322E-08	-0.6010	-11.7644	1	8.0	-13.01409
					2	16.0	-13.43064
					3	72.0	-14.33453
					4	624.0	-15.63230

Calculation No. PM-1055 Revision 0**Attachment J****Page 1085 of 1411**

4	4.228E-06	3.178E-08	-0.5833	-11.9695			
					1	8.0	-13.18240
					2	16.0	-13.58669
					3	72.0	-14.46396
					4	624.0	-15.72351
5	2.742E-06	2.730E-08	-0.5498	-12.4258			
					1	8.0	-13.56895
					2	16.0	-13.95001
					3	72.0	-14.77688
					4	624.0	-15.96407
6	3.640E-06	3.066E-08	-0.5697	-12.1286			
					1	8.0	-13.31321
					2	16.0	-13.70808
					3	72.0	-14.56493
					4	624.0	-15.79514
7	4.684E-06	3.952E-08	-0.5695	-11.8765			
					1	8.0	-13.06076
					2	16.0	-13.45550
					3	72.0	-14.31207
					4	624.0	-15.54189
8	3.403E-06	2.972E-08	-0.5653	-12.1991			
					1	8.0	-13.37470
					2	16.0	-13.76657
					3	72.0	-14.61690
					4	624.0	-15.83776
9	5.293E-06	6.511E-08	-0.5245	-11.7857			
					1	8.0	-12.87633
					2	16.0	-13.23989
					3	72.0	-14.02878
					4	624.0	-15.16144
10	3.525E-06	3.113E-08	-0.5641	-12.1646			
					1	8.0	-13.33754
					2	16.0	-13.72851
					3	72.0	-14.57690
					4	624.0	-15.79497
11	3.498E-06	2.694E-08	-0.5803	-12.1611			
					1	8.0	-13.36792
					2	16.0	-13.77018
					3	72.0	-14.64306
					4	624.0	-15.89630
12	1.966E-06	1.663E-08	-0.5692	-12.7450			
					1	8.0	-13.92858
					2	16.0	-14.32312
					3	72.0	-15.17924
					4	624.0	-16.40843
13	1.529E-06	1.640E-08	-0.5408	-13.0162			
					1	8.0	-14.14086
					2	16.0	-14.51573
					3	72.0	-15.32918
					4	624.0	-16.49710
14	1.832E-06	2.379E-08	-0.5181	-12.8510			
					1	8.0	-13.92823
					2	16.0	-14.28732

Calculation No. PM-1055 Revision 0**Attachment J****Page 1086 of 1411**

					3	72.0	-15.06653
					4	624.0	-16.18527
15	1.547E-06	2.237E-08	-0.5052	-13.0289			
					1	8.0	-14.07955
					2	16.0	-14.42976
					3	72.0	-15.18967
					4	624.0	-16.28073
16	1.732E-06	2.631E-08	-0.4993	-12.9202			
					1	8.0	-13.95855
					2	16.0	-14.30466
					3	72.0	-15.05571
					4	624.0	-16.13401
17	8.867E-06	6.511E-08	-0.5861	-11.2269			
					1	8.0	-12.44557
					2	16.0	-12.85179
					3	72.0	-13.73326
					4	624.0	-14.99883

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 12/29/02

Page 1087 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Stack Release

SOURCE OF DATA:

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 97.5 meters

DELTA-T HEIGHTS: 10.1-96.3 meters

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 320 ft wind, 33-316 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

RELATIVE CONCENTRATION (X/Q) VALUES (SEC/CUBIC METER)

VERSUS

AVERAGING TIME

HOURS PER YEAR MAX

0-2 HR X/Q IS

EXCEEDED

DOWNWIND

DOWNWIND DISTANCE SECTOR (METERS)	0-2 HOURS	0-8 HOURS	8-24 HOURS	1-4 DAYS	4-30 DAYS	ANNUAL AVERAGE	IN SECTOR	DOWNWIND SECTOR
S 7300.	2.05E-06	9.71E-07	6.68E-07	2.97E-07	9.25E-08	2.22E-08	4.2	S
SSW 7300.	1.83E-06	8.34E-07	5.63E-07	2.39E-07	7.02E-08	1.57E-08	3.6	SSW
SW 7300.	5.13E-06	2.23E-06	1.47E-06	5.95E-07	1.63E-07	3.32E-08	41.8	SW
WSW 7300.	4.23E-06	1.88E-06	1.26E-06	5.23E-07	1.48E-07	3.18E-08	28.3	WSW
W 7300.	2.74E-06	1.28E-06	8.74E-07	3.82E-07	1.17E-07	2.73E-08	9.4	W
WNW 7300.	3.64E-06	1.65E-06	1.11E-06	4.73E-07	1.38E-07	3.07E-08	20.5	WNW
NW 7300.	4.68E-06	2.13E-06	1.43E-06	6.09E-07	1.78E-07	3.95E-08	34.3	NW
NNW 7300.	3.40E-06	1.55E-06	1.05E-06	4.49E-07	1.32E-07	2.97E-08	17.3	NNW
N 7300.	5.29E-06	2.56E-06	1.78E-06	8.08E-07	2.60E-07	6.51E-08	43.7	N
NNE 7300.	3.53E-06	1.61E-06	1.09E-06	4.67E-07	1.38E-07	3.11E-08	18.3	NNE
NE 7300.	3.50E-06	1.56E-06	1.05E-06	4.37E-07	1.25E-07	2.69E-08	18.1	NE
ENE 7300.	1.97E-06	8.93E-07	6.02E-07	2.56E-07	7.48E-08	1.66E-08	4.9	ENE
E 7300.	1.53E-06	7.22E-07	4.96E-07	2.20E-07	6.85E-08	1.64E-08	2.3	E
ESE 7300.	1.83E-06	8.93E-07	6.24E-07	2.86E-07	9.35E-08	2.38E-08	3.9	ESE
SE 7300.	1.55E-06	7.68E-07	5.41E-07	2.53E-07	8.50E-08	2.24E-08	1.8	SE
SSE 7300.	1.73E-06	8.67E-07	6.13E-07	2.89E-07	9.84E-08	2.63E-08	2.0	SSE
MAX X/Q	5.29E-06					TOTAL HOURS AROUND SITE:	254.4	
SRP 2.3.4 7300.	8.87E-06	3.94E-06	2.62E-06	1.09E-06	3.06E-07	6.51E-08		
SITE LIMIT	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.51E-08		

0.5 PERCENT X/Q TO AN INDIVIDUAL IS LIMITING.

X/Q VALUES (SEC/CUBIC METER) FOR FUMIGATION AT THE BOUNDARY:

DOWNWIND DISTANCE FUMIGATION

SECTOR (METERS)	X/Q
S 7300.	9.20E-06
SSW 7300.	9.80E-06
SW 7300.	1.75E-05
WSW 7300.	1.75E-05
W 7300.	1.13E-05
WNW 7300.	1.65E-05
NW 7300.	1.75E-05
NNW 7300.	1.33E-05
N 7300.	1.75E-05
NNE 7300.	1.33E-05
NE 7300.	1.33E-05
ENE 7300.	1.05E-05
E 7300.	8.58E-06

Calculation No. PM-1055 Revision 0**Attachment J****Page 1088 of 1411**

ESE	7300.	1.05E-05
SE	7300.	8.19E-06
SSE	7300.	8.19E-06

****NOTE**:** VALUES ON THIS PAGE ARE APPROXIMATIONS ONLY.
CHECK THE REASONABLENESS OF THE ENVELOPES
COMPUTED FOR THE 0-2 HOUR VALUES. FOR ANY
FAULTY ENVELOPES, ADJUST THE ABOVE VALUES.

PRINTOUT OF INPUT CARDS

```
1      00000 00000 00000 00000 00000 00000 00000 `00000 00000 00000 00000 00000 00000 00000 .00000 00000
```


Reactor Building Stacks to EAB (River Tower 45' wind and Tower 1A 89'-33' Delta T Stability Class)

1 1111				Ground Release															
Peach Bottom																			
13.7 meters				20.4-21.1 meters															
Peach Bottom, 1984-1988, 1A met (w/ RT wind), RB Stack to EAB and LPZ																			
7	0																		
2584.	54.3	10.0	13.7																
0	0	1	1	4	4	4													
88.	83.	81.	88.	122.	132.	123.	50.	58.	31.	29.	33.	37.	42.	32.	71.				
156.	102.	81.	102.	197.	313.	422.	164.	69.	34.	17.	13.	28.	34.	163.	163.				
223.	44.	36.	36.	66.	87.	288.	291.	157.	35.	32.	31.	53.	70.	348.	418.				
124.	18.	5.	4.	1.	10.	20.	164.	65.	10.	1.	2.	31.	95.	350.	463.				
29.	0.	1.	0.	0.	2.	0.	12.	0.	1.	0.	0.	0.	25.	147.	116.				
1.	3.	1.	0.	1.	0.	1.	0.	0.	0.	0.	0.	0.	5.	40.	17.				
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.				
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.				
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.				
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.				
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.				
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.				
35.	33.	33.	29.	36.	44.	48.	19.	13.	4.	5.	10.	10.	13.	24.	31.				
68.	37.	42.	69.	113.	121.	137.	56.	27.	18.	16.	15.	23.	24.	90.	78.				
100.	34.	35.	10.	46.	81.	103.	95.	60.	17.	42.	32.	61.	95.	149.	137.				
57.	4.	5.	1.	1.	15.	20.	52.	12.	3.	5.	4.	25.	134.	217.	168.				
3.	0.	1.	0.	0.	2.	1.	8.	0.	1.	0.	1.	1.	59.	83.	53.				
0.	0.	1.	0.	0.	0.	0.	1.	0.	0.	0.	0.	0.	6.	31.	16.				
92.	62.	70.	81.	92.	93.	103.	48.	34.	17.	25.	28.	32.	40.	61.	70.				
171.	102.	158.	164.	217.	267.	360.	164.	115.	63.	70.	83.	101.	124.	219.	171.				
208.	86.	52.	48.	122.	210.	296.	367.	149.	57.	72.	85.	193.	359.	489.	288.				
76.	22.	7.	3.	22.	45.	44.	161.	38.	14.	14.	11.	89.	561.	557.	318.				
9.	2.	0.	0.	2.	4.	7.	37.	1.	0.	0.	0.	6.	123.	270.	115.				
2.	1.	0.	0.	0.	0.	1.	0.	0.	0.	0.	0.	1.	17.	67.	30.				
105.	60.	45.	56.	64.	109.	155.	79.	37.	45.	61.	49.	65.	62.	82.	161.				
153.	59.	69.	93.	94.	178.	342.	217.	153.	51.	91.	93.	136.	151.	252.	151.				
164.	40.	30.	23.	42.	119.	197.	332.	98.	24.	30.	21.	73.	306.	382.	180.				
44.	7.	0.	2.	25.	23.	20.	103.												

[illegible]

188.	214.	71.
5.	11.	7.
0.	0.	0.
9.	3.	1.
823.	0823.	0823.
300.	7300.	7300.
1.	1.	1.
1.	1.	1.

PAVAN Output**Reactor Building Stacks to EAB (River Tower 45' wind and Tower 1A 89'-33' Delta T Stability Class)**

Copyright (c) 1990 Ergo Computing, Inc. for Lahey

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

RUN DATE: 01/09/03

PRINTOUT OF INPUT CARDS

```
1      00010 01111 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 00000 2      Peach Bottom
Ground Release
3      13.7 meters      10.4-21.1 meters
4
5      Peach Bottom, 1984-1988, 1A met (w/ RT wind), RB Stack to EAB and LPZ      6      7 42046      0
7      0.500 2584.000 54.300 10.000 13.700
8      0.000 0.000 1.000 1.000 4.000 4.000 4.000
9      88.000 83.000 81.000 88.000 122.000 132.000 123.000 50.000 58.000 31.000 29.000 33.000 37.000 42.000 32.000 71.000
9      156.000 102.000 81.000 102.000 197.000 313.000 422.000 164.000 69.000 34.000 17.000 13.000 28.000 34.000 163.000 163.000
9      223.000 44.000 36.000 36.000 66.000 87.000 288.000 291.000 157.000 35.000 32.000 31.000 53.000 70.000 348.000 418.000
9      124.000 18.000 5.000 4.000 1.000 10.000 20.000 164.000 65.000 10.000 1.000 2.000 31.000 95.000 350.000 463.000
9      29.000 0.000 1.000 0.000 0.000 2.000 0.000 12.000 0.000 1.000 0.000 0.000 0.000 25.000 147.000 116.000
9      1.000 3.000 1.000 0.000 1.000 0.000 1.000 0.000 0.000 0.000 0.000 0.000 0.000 5.000 40.000 17.000
9      0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
9      0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
9      0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
9      0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
9      0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
9      0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
9      35.000 33.000 33.000 29.000 36.000 44.000 48.000 19.000 13.000 4.000 5.000 10.000 10.000 13.000 24.000 31.000
9      68.000 37.000 42.000 69.000 113.000 121.000 137.000 56.000 27.000 18.000 16.000 15.000 23.000 24.000 90.000 78.000
9      100.000 34.000 35.000 10.000 46.000 81.000 103.000 95.000 60.000 17.000 42.000 32.000 61.000 95.000 149.000 137.000
9      57.000 4.000 5.000 1.000 1.000 15.000 20.000 52.000 12.000 3.000 5.000 4.000 25.000 134.000 217.000 168.000
9      3.000 0.000 1.000 0.000 0.000 2.000 1.000 8.000 0.000 1.000 0.000 1.000 1.000 59.000 83.000 53.000
9      0.000 0.000 1.000 0.000 0.000 0.000 0.000 0.000 1.000 0.000 0.000 0.000 0.000 6.000 31.000 16.000
9      92.000 62.000 70.000 81.000 92.000 93.000 103.000 48.000 34.000 17.000 25.000 28.000 32.000 40.000 61.000 70.000
9      171.000 102.000 158.000 164.000 217.000 267.000 360.000 164.000 115.000 63.000 70.000 83.000 101.000 124.000 219.000 171.000
9      208.000 86.000 52.000 48.000 122.000 210.000 296.000 367.000 149.000 57.000 72.000 85.000 193.000 359.000 489.000 288.000
9      76.000 22.000 7.000 3.000 22.000 45.000 44.000 161.000 38.000 14.000 14.000 11.000 89.000 561.000 557.000 318.000
9      9.000 2.000 0.000 0.000 2.000 4.000 7.000 37.000 1.000 0.000 0.000 0.000 6.000 123.000 270.000 115.000
9      2.000 1.000 0.000 0.000 0.000 0.000 0.000 1.000 0.000 0.000 0.000 0.000 1.000 17.000 67.000 30.000
9      105.000 60.000 45.000 56.000 64.000 109.000 155.000 79.000 37.000 45.000 61.000 49.000 65.000 62.000 82.000 161.000
9      153.000 59.000 69.000 93.000 94.000 178.000 342.000 217.000 153.000 51.000 91.000 93.000 136.000 151.000 252.000 151.000
9      164.000 40.000 30.000 23.000 42.000 119.000 197.000 332.000 98.000 24.000 30.000 21.000 73.000 306.000 382.000 180.000
9      44.000 7.000 0.000 2.000 25.000 23.000 20.000 103.000 17.000 1.000 1.000 1.000 7.000 132.000 217.000 107.000
9      2.000 0.000 0.000 0.000 5.000 0.000 1.000 22.000 6.000 0.000 0.000 0.000 0.000 13.000 44.000 19.000
9      2.000 1.000 0.000 0.000 0.000 2.000 1.000 0.000 0.000 0.000 0.000 0.000 0.000 6.000 3.000 1.000
9      91.000 52.000 48.000 42.000 60.000 96.000 167.000 119.000 99.000 51.000 75.000 88.000 121.000 99.000 173.000 176.000
9      90.000 28.000 36.000 19.000 42.000 99.000 228.000 248.000 128.000 44.000 53.000 82.000 128.000 170.000 218.000 148.000
```

[illegible]

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 01/09/03

Page 1094 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Ground Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, 1984-1988, 1A met (w/ RT wind), RB Stack to EAB and LPZ

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 13.7 meters

DELTA-T HEIGHTS: 10.4-21.1 meters

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION
ATMOSPHERIC STABILITY CLASS A

WIND SPEED (M/S)

TOWER RELEASE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
0.22 0.21	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.56 1.45	0.209	0.197	0.193	0.209	0.290	0.314	0.293	0.119	0.138	0.074	0.069	0.078	0.088	0.100	0.076	0.169	2.616
3.35 3.10	0.371	0.243	0.193	0.243	0.469	0.744	1.004	0.390	0.164	0.081	0.040	0.031	0.067	0.081	0.388	0.388	4.895
5.59 5.17	0.530	0.105	0.086	0.086	0.157	0.207	0.685	0.692	0.373	0.083	0.076	0.074	0.126	0.166	0.828	0.994	5.268
8.27 7.64	0.295	0.043	0.012	0.010	0.002	0.024	0.048	0.390	0.155	0.024	0.002	0.005	0.074	0.226	0.832	1.101	3.242
10.73 9.92	0.069	0.000	0.002	0.000	0.000	0.005	0.000	0.029	0.000	0.002	0.000	0.000	0.000	0.059	0.350	0.276	0.792
24.59 22.73	0.002	0.007	0.002	0.000	0.002	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.012	0.095	0.040	0.164
TOTAL	1.48	0.59	0.49	0.55	0.92	1.29	2.03	1.62	0.83	0.26	0.19	0.19	0.35	0.64	2.57	2.97	16.98

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION
ATMOSPHERIC STABILITY CLASS B

WIND SPEED (M/S)

TOWER RELEASE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
0.22 0.21	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.56 1.45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3.35 3.10	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5.59 5.17	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8.27 7.64	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10.73 9.92	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24.59 22.73	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TOTAL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION
ATMOSPHERIC STABILITY CLASS C

WIND SPEED (M/S)

TOWER RELEASE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
0.22 0.21	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002
1.56 1.45	0.083	0.078	0.078	0.069	0.086	0.105	0.114	0.045	0.031	0.010	0.012	0.024	0.024	0.031	0.057	0.074	0.920
3.35 3.10	0.162	0.088	0.100	0.164	0.269	0.288	0.326	0.133	0.064	0.043	0.038	0.036	0.055	0.057	0.214	0.186	2.221
5.59 5.17	0.238	0.081	0.083	0.024	0.109	0.193	0.245	0.226	0.143	0.040	0.100	0.076	0.145	0.226	0.354	0.326	2.609
8.27 7.64	0.136	0.010	0.012	0.002	0.002	0.036	0.048	0.124	0.029	0.007	0.012	0.010	0.059	0.319	0.516	0.400	1.720
10.73 9.92	0.007	0.000	0.002	0.000	0.000	0.005	0.002	0.019	0.000	0.002	0.000	0.002	0.002	0.140	0.197	0.126	0.507
24.59 22.73	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.014	0.074	0.038	0.131
TOTAL	0.63	0.26	0.28	0.26	0.47	0.63	0.74	0.55	0.27	0.10	0.16	0.15	0.29	0.79	1.41	1.15	8.11

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION
ATMOSPHERIC STABILITY CLASS D

WIND SPEED (M/S)

TOWER RELEASE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
0.22 0.21	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002
1.56 1.45	0.219	0.147	0.166	0.193	0.219	0.221	0.245	0.114	0.081	0.040	0.059	0.067	0.076	0.095	0.145	0.166	2.255

Calculation No. PM-1055 Revision 0
Attachment J
Page 1095 of 1411

3.35	3.10	0.407	0.243	0.376	0.390	0.516	0.635	0.856	0.390	0.274	0.150	0.166	0.197	0.240	0.295	0.521	0.407	6.062
5.59	5.17	0.495	0.205	0.124	0.114	0.290	0.499	0.704	0.873	0.354	0.136	0.171	0.202	0.459	0.854	1.163	0.685	7.328
8.27	7.64	0.181	0.052	0.017	0.007	0.052	0.107	0.105	0.383	0.090	0.033	0.033	0.026	0.212	1.334	1.325	0.756	4.714
10.73	9.92	0.021	0.005	0.000	0.000	0.005	0.010	0.017	0.088	0.002	0.000	0.000	0.000	0.014	0.293	0.642	0.274	1.370
24.59	22.73	0.005	0.002	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.002	0.040	0.159	0.071	0.283
TOTAL		1.33	0.65	0.68	0.70	1.08	1.47	1.93	1.85	0.80	0.36	0.43	0.49	1.00	2.91	3.96	2.36	22.01

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION
WIND SPEED (M/S)
ATMOSPHERIC STABILITY CLASS E

TOWER RELEASE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
0.22	0.19	0.001	0.000	0.000	0.000	0.000	0.001	0.001	0.001	0.000	0.000	0.000	0.001	0.000	0.001	0.001	0.010
1.56	1.34	0.250	0.143	0.107	0.133	0.152	0.259	0.369	0.188	0.088	0.107	0.145	0.117	0.155	0.147	0.195	2.937
3.35	2.86	0.364	0.140	0.164	0.221	0.224	0.423	0.813	0.516	0.364	0.121	0.216	0.221	0.323	0.359	0.599	5.430
5.59	4.77	0.390	0.095	0.071	0.055	0.100	0.283	0.469	0.790	0.233	0.057	0.071	0.050	0.174	0.728	0.909	4.902
8.27	7.07	0.105	0.017	0.000	0.005	0.059	0.055	0.048	0.245	0.040	0.002	0.002	0.002	0.017	0.314	0.516	1.681
10.73	9.17	0.005	0.000	0.000	0.000	0.012	0.000	0.002	0.052	0.014	0.000	0.000	0.000	0.000	0.031	0.105	0.266
24.59	21.01	0.005	0.002	0.000	0.000	0.000	0.005	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.014	0.007	0.038
TOTAL		1.12	0.40	0.34	0.41	0.55	1.03	1.70	1.79	0.74	0.29	0.44	0.39	0.67	1.59	2.33	15.26

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION
WIND SPEED (M/S)
ATMOSPHERIC STABILITY CLASS F

TOWER RELEASE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
0.22	0.19	0.001	0.000	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.000	0.000	0.001	0.001	0.001	0.001	0.010
1.56	1.34	0.216	0.124	0.114	0.100	0.143	0.228	0.397	0.283	0.235	0.121	0.178	0.209	0.288	0.235	0.411	3.703
3.35	2.86	0.214	0.067	0.086	0.045	0.100	0.235	0.542	0.590	0.304	0.105	0.126	0.195	0.304	0.404	0.518	4.188
5.59	4.77	0.083	0.012	0.019	0.019	0.012	0.071	0.159	0.435	0.157	0.033	0.010	0.026	0.050	0.369	0.542	2.219
8.27	7.07	0.002	0.000	0.000	0.002	0.029	0.000	0.000	0.043	0.012	0.000	0.000	0.000	0.002	0.031	0.057	0.226
10.73	9.17	0.000	0.000	0.000	0.000	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.002	0.014
24.59	21.01	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.007	0.000	0.005	0.014
TOTAL		0.52	0.20	0.22	0.17	0.29	0.54	1.10	1.35	0.71	0.26	0.31	0.43	0.65	1.04	1.54	10.37

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION
WIND SPEED (M/S)
ATMOSPHERIC STABILITY CLASS G

TOWER RELEASE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
0.22	0.19	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.001	0.001	0.001	0.001	0.001	0.001	0.010
1.56	1.34	0.459	0.181	0.150	0.193	0.212	0.314	0.637	0.747	0.849	0.649	1.056	1.413	2.195	1.900	2.174	14.532
3.35	2.86	0.331	0.112	0.088	0.031	0.114	0.269	0.744	0.747	0.557	0.335	0.483	0.840	1.888	1.425	1.741	10.793
5.59	4.77	0.098	0.007	0.014	0.000	0.000	0.059	0.052	0.147	0.076	0.017	0.007	0.143	0.447	0.509	0.169	1.762
8.27	7.07	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.021	0.012	0.000	0.000	0.002	0.000	0.012	0.026	0.093
10.73	9.17	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.007
24.59	21.01	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.002	0.010	0.019	0.021	0.007	0.064
TOTAL		0.89	0.30	0.25	0.22	0.33	0.64	1.43	1.67	1.50	1.00	1.55	2.28	4.25	3.81	4.46	27.26

WIND MEASURED AT 13.7 METERS.

WIND SPEED CORRECTED TO THE RELEASE HEIGHT OF 10.0 METERS.

OVERALL WIND DIRECTION FREQUENCY

WIND DIRECTION:	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
FREQUENCY:	6.0	2.4	2.3	2.3	3.6	5.6	8.9	8.8	4.8	2.3	3.1	3.9	7.2	10.8	16.3	11.7

OVERALL WIND SPEED FREQUENCY AS MEASURED ON THE TOWER:

MAX.WIND SPEED (M/S):	0.224	1.565	3.353	5.588	8.270	10.729	24.587
WIND SPEED FREQUENCY:	0.03	26.96	33.59	24.09	11.68	2.96	0.69

BUILDING AND RELEASE CHARACTERISTICS:

RELEASE HEIGHT:	10.00 METERS
MIXING VOLUME COEFFICIENT:	0.50
BUILDING CROSS-SECTIONAL AREA:	2584.00 SQUARE METERS

BOUNDARY DISTANCES (METERS) FROM THE SOURCE FOR EACH DOWNWIND SECTOR:

DOWNWIND SECTOR	S	SSW	SW	WSW	W	WNW	NW	NNW	N	NNE	NE	ENE	E	ESE	SE	SSE
BOUNDARY 1	823.	823.	823.	823.	823.	823.	823.	823.	823.	823.	823.	823.	823.	823.	823.	823.
BOUNDARY 2	-100.	7300.	7300.	7300.	7300.	7300.	7300.	7300.	7300.	7300.	7300.	7300.	7300.	7300.	7300.	7300.

THE CONVERSION FACTOR APPLIED TO THE WIND SPEED CLASSES IS 0.447

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 1097 of 1411**

RUN DATE: 01/09/03

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Ground Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, 1984-1988, 1A met (w/ RT wind), RB Stack to EAB and LPZ

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 13.7 meters

DELTA-T HEIGHTS: 10.4-21.1 meters

WINDSPEEDS ADJUSTED TO 10.0 METERS.

PERCENT OF THE TIME A GIVEN WINDSPEED IS LOWER:

WINDSPEED (METER/SEC)	CUMULATIVE FREQUENCY (PERCENT)
--------------------------	-----------------------------------

0.19	0.03
0.21	0.03
1.34	21.21
1.45	27.00
2.86	47.41
3.10	60.59
4.77	69.47
5.17	84.67
7.07	86.67
7.64	96.35
9.17	96.64
9.92	99.31
21.01	99.42
22.73	100.00

WINDSPEED (INTERPOLATED)	CUMULATIVE FREQUENCY
-----------------------------	----------------------

(METER/SEC)	(PERCENT)
-------------	-----------

0.19	0.03
1.36	27.00
2.96	60.59
5.02	84.67
7.55	96.35
9.84	99.31
22.44	100.00

LOG-NORMAL INTERPOLATION PERCENTILES

WINDSPEED (METER/SEC)	CUMULATIVE FREQUENCY (PERCENT)
--------------------------	-----------------------------------

0.41	1.00
0.56	3.00
0.66	5.00
0.85	10.00
1.01	15.00
1.16	20.00

1.30	25.00
1.47	30.00
1.66	35.00
1.87	40.00
2.09	45.00
2.33	50.00
2.61	55.00
2.92	60.00
3.21	65.00
3.54	70.00
3.93	75.00
4.42	80.00
5.18	85.00
5.76	90.00

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1099 of 1411

RUN DATE: 01/09/03

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Ground Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, 1984-1988, 1A met (w/ RT wind), RB Stack to EAB and LPZ

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 13.7 meters

DELTA-T HEIGHTS: 10.4-21.1 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE S SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)
CLASS	METER/SEC	PERCENT	METERS	METERS			METERS		METERS	METERS	METERS	MEANDER BLDG WAKE USED
AT 10.0 METERS												
CA=1292.SQ.METERS												
A	1.4	3.52	823.	0.		0.	157.1		310.1		157.1	4.518E-06 4.480E-06 4.480E-06
A	3.1	6.23	823.	0.		0.	157.1		310.1		157.1	2.108E-06 2.091E-06 2.091E-06
A	5.2	8.91	823.	0.		0.	157.1		310.1		157.1	1.265E-06 1.254E-06 1.254E-06
A	7.6	4.95	823.	0.		0.	157.1		310.1		157.1	8.548E-07 8.476E-07 8.476E-07
A	9.9	1.16	823.	0.		0.	157.1		310.1		157.1	6.589E-07 6.534E-07 6.534E-07
A	22.7	0.04	823.	0.		0.	157.1		310.1		157.1	2.875E-07 2.851E-07 2.851E-07
C	0.2	0.00	823.	0.		0.	89.7		51.2		89.7	3.356E-04 3.080E-04 3.080E-04
C	1.4	1.40	823.	0.		0.	89.7		51.2		89.7	4.795E-05 4.401E-05 4.401E-05
C	3.1	2.72	823.	0.		0.	89.7		51.2		89.7	2.238E-05 2.054E-05 2.054E-05
C	5.2	4.00	823.	0.		0.	89.7		51.2		89.7	1.343E-05 1.232E-05 1.232E-05
C	7.6	2.28	823.	0.		0.	89.7		51.2		89.7	9.071E-06 8.325E-06 8.325E-06
C	9.9	0.12	823.	0.		0.	89.7		51.2		89.7	6.992E-06 6.417E-06 6.417E-06
D	0.2	0.00	823.	0.		0.	63.2		27.1		124.7	4.551E-04 7.248E-04 4.551E-04
D	1.4	3.68	823.	0.		0.	63.2		27.1		124.7	6.501E-05 1.035E-04 6.501E-05
D	3.1	6.83	823.	0.		0.	63.2		27.1		95.0	3.983E-05 4.832E-05 3.983E-05
D	5.2	8.31	823.	0.		0.	63.2		27.1		69.3	3.278E-05 2.899E-05 2.899E-05
D	7.6	3.04	823.	0.		0.	63.2		27.1		63.2	2.429E-05 1.959E-05 1.959E-05
D	9.9	0.36	823.	0.		0.	63.2		27.1		63.2	1.872E-05 1.510E-05 1.510E-05
D	22.7	0.08	823.	0.		0.	63.2		27.1		63.2	8.169E-06 6.589E-06 6.589E-06
E	0.2	0.01	823.	0.		0.	44.9		18.7		132.5	6.730E-04 1.332E-03 6.730E-04
E	1.3	4.20	823.	0.		0.	44.9		18.7		132.5	9.614E-05 1.903E-04 9.614E-05
E	2.9	6.11	823.	0.		0.	44.9		18.7		92.8	6.402E-05 8.883E-05 6.402E-05
E	4.8	6.55	823.	0.		0.	44.9		18.7		56.2	6.350E-05 5.330E-05 5.330E-05
E	7.1	1.76	823.	0.		0.	44.9		18.7		44.9	5.365E-05 3.601E-05 3.601E-05
E	9.2	0.08	823.	0.		0.	44.9		18.7		44.9	4.135E-05 2.776E-05 2.776E-05
E	21.0	0.08	823.	0.		0.	44.9		18.7		44.9	1.804E-05 1.211E-05 1.211E-05
F	0.2	0.01	823.	0.		0.	31.0		12.0		121.7	1.141E-03 2.127E-03 1.141E-03
F	1.3	3.64	823.	0.		0.	31.0		12.0		121.7	1.630E-04 3.039E-04 1.630E-04
F	2.9	3.60	823.	0.		0.	31.0		12.0		77.6	1.193E-04 1.418E-04 1.193E-04
F	4.8	1.40	823.	0.		0.	31.0		12.0		41.1	1.351E-04 8.509E-05 8.509E-05
F	7.1	0.04	823.	0.		0.	31.0		12.0		31.0	1.210E-04 5.750E-05 5.750E-05
G	0.2	0.01	823.	0.		0.	21.4		7.7		125.7	1.720E-03 3.367E-03 1.720E-03
G	1.3	7.71	823.	0.		0.	21.4		7.7		125.7	2.457E-04 4.809E-04 2.457E-04

G	2.9	5.55	823.	0.	0.	21.4	7.7	70.2	2.053E-04	2.244E-04	2.053E-04
G	4.8	1.64	823.	0.	0.	21.4	7.7	30.8	2.805E-04	1.347E-04	1.347E-04

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1101 of 1411

RUN DATE: 01/09/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 13.7 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.4 21.1 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, 1984-1988, 1A met (w/ RT wind), RB Stack to EAB and LPZ

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

S SECTOR BOUNDARY DISTANCE = 823.0 METERS

LATERAL PLUME MEANDER/BUILDING WAKE CREDIT ALLOWED

AS A FUNCTION OF DOWNWIND DISTANCE.

MEANDER CREDIT IS FOR WINDSPEEDS LESS THAN 6 MPS.

BUILDING WAKE CREDIT ALLOWED: C= 0.5 A= 2584. D= 54.3

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.720E-03	1.141E-03	6.730E-04	4.551E-04	3.080E-04	2.457E-04	2.053E-04	1.630E-04	1.347E-04	1.193E-04
0.005	0.014	0.028	0.032	0.035	7.747	13.300	16.936	18.574	22.170
0.00030	0.00086	0.00167	0.00190	0.00211	0.46113	0.79172	1.00815	1.10566	1.31972
9.614E-05	8.509E-05	6.501E-05	6.402E-05	5.750E-05	5.330E-05	4.401E-05	3.983E-05	3.601E-05	2.899E-05
26.365	27.763	31.439	37.552	37.592	44.145	45.543	52.375	54.133	62.443
1.56944	1.65268	1.87149	2.23538	2.23776	2.62781	2.71105	3.11775	3.22239	3.71709
2.776E-05	2.054E-05	1.959E-05	1.510E-05	1.232E-05	1.211E-05	8.325E-06	6.589E-06	6.417E-06	4.480E-06
62.523	65.240	68.277	68.636	72.632	72.712	74.989	75.069	75.189	78.705
3.72185	3.88357	4.06433	4.08573	4.32357	4.32833	4.46389	4.46865	4.47578	4.68508
2.091E-06	1.254E-06	8.476E-07	6.534E-07	2.851E-07					
84.937	93.847	98.801	99.960	100.000					
5.05610	5.58647	5.88139	5.95036	5.95274					

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(2)=	0.791
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(3)=	1.007
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(4)=	2.625
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(5)=	3.115
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(6)=	3.714

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
1	1	-6.36563	-10.91894	-1.00605
1	2	-8.49120	-14.71414	-2.57877
1	3	-8.72174	-15.47337	-2.90550
1	4	-9.83966	-17.38826	-3.89308
1	5	-10.13086	-17.60125	-4.00733
1	6	-10.44855	NUMXQ(K) = 6	
		4.723E-04	0.060	1.000
		3.398E-04	0.179	3.000
		2.883E-04	0.298	5.000
		2.275E-04	0.595	10.000
		1.832E-04	0.893	15.000
		1.357E-04	1.191	20.000
		1.054E-04	1.488	25.000
		8.523E-05	1.786	30.000
		7.091E-05	2.083	35.000
		6.024E-05	2.381	40.000
		5.160E-05	2.679	45.000
		4.314E-05	2.976	50.000
		3.650E-05	3.274	55.000
		3.119E-05	3.572	60.000
		2.419E-04	0.5	8.40

ANNUAL AVERAGE = 3.07E-06

K= 1 FIVEXQ(K) = 2.419E-04 FIVEPR(K) = 8.399

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 01/09/03

Page 1103 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Ground Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, 1984-1988, 1A met (w/ RT wind), RB Stack to EAB and LPZ

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 13.7 meters

DELTA-T HEIGHTS: 10.4-21.1 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE SSW SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 10.0 METERS												CA=1292.SQ.METERS		
A	1.4	8.20	823.	0.	0.	0.	157.1	310.1	157.1	4.518E-06	4.480E-06	4.480E-06		
A	3.1	10.07	823.	0.	0.	0.	157.1	310.1	157.1	2.108E-06	2.091E-06	2.091E-06		
A	5.2	4.35	823.	0.	0.	0.	157.1	310.1	157.1	1.265E-06	1.254E-06	1.254E-06		
A	7.6	1.78	823.	0.	0.	0.	157.1	310.1	157.1	8.548E-07	8.476E-07	8.476E-07		
A	22.7	0.30	823.	0.	0.	0.	157.1	310.1	157.1	2.875E-07	2.851E-07	2.851E-07		
C	0.2	0.01	823.	0.	0.	0.	89.7	51.2	89.7	3.356E-04	3.080E-04	3.080E-04		
C	1.4	3.26	823.	0.	0.	0.	89.7	51.2	89.7	4.795E-05	4.401E-05	4.401E-05		
C	3.1	3.65	823.	0.	0.	0.	89.7	51.2	89.7	2.238E-05	2.054E-05	2.054E-05		
C	5.2	3.36	823.	0.	0.	0.	89.7	51.2	89.7	1.343E-05	1.232E-05	1.232E-05		
C	7.6	0.40	823.	0.	0.	0.	89.7	51.2	89.7	9.071E-06	8.325E-06	8.325E-06		
D	0.2	0.01	823.	0.	0.	0.	63.2	27.1	124.7	4.551E-04	7.248E-04	4.551E-04		
D	1.4	6.12	823.	0.	0.	0.	63.2	27.1	124.7	6.501E-05	1.035E-04	6.501E-05		
D	3.1	10.07	823.	0.	0.	0.	63.2	27.1	95.0	3.983E-05	4.832E-05	3.983E-05		
D	5.2	8.49	823.	0.	0.	0.	63.2	27.1	69.3	3.278E-05	2.899E-05	2.899E-05		
D	7.6	2.17	823.	0.	0.	0.	63.2	27.1	63.2	2.429E-05	1.959E-05	1.959E-05		
D	9.9	0.20	823.	0.	0.	0.	63.2	27.1	63.2	1.872E-05	1.510E-05	1.510E-05		
D	22.7	0.10	823.	0.	0.	0.	63.2	27.1	63.2	8.169E-06	6.589E-06	6.589E-06		
E	0.2	0.02	823.	0.	0.	0.	44.9	18.7	132.5	6.730E-04	1.332E-03	6.730E-04		
E	1.3	5.93	823.	0.	0.	0.	44.9	18.7	132.5	9.614E-05	1.903E-04	9.614E-05		
E	2.9	5.83	823.	0.	0.	0.	44.9	18.7	92.8	6.402E-05	8.883E-05	6.402E-05		
E	4.8	3.95	823.	0.	0.	0.	44.9	18.7	56.2	6.350E-05	5.330E-05	5.330E-05		
E	7.1	0.69	823.	0.	0.	0.	44.9	18.7	44.9	5.365E-05	3.601E-05	3.601E-05		
E	21.0	0.10	823.	0.	0.	0.	44.9	18.7	44.9	1.804E-05	1.211E-05	1.211E-05		
F	0.2	0.01	823.	0.	0.	0.	31.0	12.0	121.7	1.141E-03	2.127E-03	1.141E-03		
F	1.3	5.14	823.	0.	0.	0.	31.0	12.0	121.7	1.630E-04	3.039E-04	1.630E-04		
F	2.9	2.77	823.	0.	0.	0.	31.0	12.0	77.6	1.193E-04	1.418E-04	1.193E-04		
F	4.8	0.49	823.	0.	0.	0.	31.0	12.0	41.1	1.351E-04	8.509E-05	8.509E-05		
G	0.2	0.00	823.	0.	0.	0.	21.4	7.7	125.7	1.720E-03	3.367E-03	1.720E-03		
G	1.3	7.51	823.	0.	0.	0.	21.4	7.7	125.7	2.457E-04	4.809E-04	2.457E-04		
G	2.9	4.64	823.	0.	0.	0.	21.4	7.7	70.2	2.053E-04	2.244E-04	2.053E-04		
G	4.8	0.30	823.	0.	0.	0.	21.4	7.7	30.8	2.805E-04	1.347E-04	1.347E-04		
G	7.1	0.10	823.	0.	0.	0.	21.4	7.7	21.4	2.730E-04	9.099E-05	9.099E-05		

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1104 of 1411

RUN DATE: 01/09/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 13.7 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.4-21.1 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, 1984-1988, 1A met (w/ RT wind), RB Stack to EAB and LPZ

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

SSW SECTOR BOUNDARY DISTANCE = 823.0 METERS

LATERAL PLUME MEANDER/BUILDING WAKE CREDIT ALLOWED

AS A FUNCTION OF DOWNWIND DISTANCE.

MEANDER CREDIT IS FOR WINDSPEEDS LESS THAN 6 MPS.

BUILDING WAKE CREDIT ALLOWED: C= 0.5 A= 2584. D= 54.3

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.720E-03	1.141E-03	6.730E-04	4.551E-04	3.080E-04	2.457E-04	2.053E-04	1.630E-04	1.347E-04	1.193E-04
0.005	0.018	0.037	0.044	0.052	7.558	12.200	17.336	17.632	20.397
0.00012	0.00044	0.00090	0.00105	0.00126	0.18201	0.29379	0.41747	0.42460	0.49120
9.614E-05	9.099E-05	8.509E-05	6.501E-05	6.402E-05	5.330E-05	4.401E-05	3.983E-05	3.601E-05	2.899E-05
26.323	26.422	26.916	33.039	38.866	42.816	46.076	56.149	56.841	65.334
0.63390	0.63628	0.64817	0.79562	0.93595	1.03108	1.10957	1.35216	1.36881	1.57334
2.054E-05	1.959E-05	1.510E-05	1.232E-05	1.211E-05	8.325E-06	6.589E-06	4.480E-06	2.091E-06	1.254E-06
68.989	71.161	71.359	74.717	74.815	75.211	75.309	83.507	93.580	97.926
1.66134	1.71367	1.71842	1.79929	1.80167	1.81118	1.81356	2.01096	2.25355	2.35820
8.476E-07	2.851E-07								
99.704	100.000								
2.40101	2.40814								

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(2)=	0.182
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(3)=	0.293
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(4)=	0.417
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(5)=	0.935
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(6)=	1.351

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(.7)= 1.572

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
2	1	-6.36563	-11.43622	-1.07448
2	2	-8.31154	-11.72411	-1.17347
2	3	-8.49120	-13.91986	-1.97048
2	4	-8.72174	-17.32782	-3.26235
2	5	-9.65636	-17.61615	-3.38496
2	6	-10.13086	-21.88337	-5.31466
2	7	-10.44855	NUMXQ(K)= 7	
		4.595E-04	0.024	1.000
		3.311E-04	0.072	3.000
		2.815E-04	0.120	5.000
		2.214E-04	0.241	10.000
		1.794E-04	0.361	15.000
		1.390E-04	0.482	20.000
		1.078E-04	0.602	25.000
		8.722E-05	0.722	30.000
		7.264E-05	0.843	35.000
		6.174E-05	0.963	40.000
		5.314E-05	1.084	45.000
		4.637E-05	1.204	50.000
		4.093E-05	1.324	55.000
		3.469E-05	1.445	60.000
		2.931E-05	1.565	65.000
		1.333E-04	0.5	20.76

ANNUAL AVERAGE = 1.37E-06

K= 2 FIVEXQ(K)= 1.333E-04 FIVEPR(K)=20.763

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 01/09/03

Page 1106 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Ground Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, 1984-1988, 1A met (w/ RT wind), RB Stack to EAB and LPZ

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 13.7 meters

DELTA-T HEIGHTS: 10.4-21.1 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE SW SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 10.0 METERS												CA=1292.SQ.METERS		
A	1.4	8.51	823.	0.	0.	157.1	310.1	157.1	4.518E-06	4.480E-06	4.480E-06			
A	3.1	8.51	823.	0.	0.	157.1	310.1	157.1	2.108E-06	2.091E-06	2.091E-06			
A	5.2	3.78	823.	0.	0.	157.1	310.1	157.1	1.265E-06	1.254E-06	1.254E-06			
A	7.6	0.53	823.	0.	0.	157.1	310.1	157.1	8.548E-07	8.476E-07	8.476E-07			
A	9.9	0.11	823.	0.	0.	157.1	310.1	157.1	6.589E-07	6.534E-07	6.534E-07			
A	22.7	0.11	823.	0.	0.	157.1	310.1	157.1	2.875E-07	2.851E-07	2.851E-07			
C	0.2	0.01	823.	0.	0.	89.7	51.2	89.7	3.356E-04	3.080E-04	3.080E-04			
C	1.4	3.47	823.	0.	0.	89.7	51.2	89.7	4.795E-05	4.401E-05	4.401E-05			
C	3.1	4.41	823.	0.	0.	89.7	51.2	89.7	2.238E-05	2.054E-05	2.054E-05			
C	5.2	3.68	823.	0.	0.	89.7	51.2	89.7	1.343E-05	1.232E-05	1.232E-05			
C	7.6	0.53	823.	0.	0.	89.7	51.2	89.7	9.071E-06	8.325E-06	8.325E-06			
C	9.9	0.11	823.	0.	0.	89.7	51.2	89.7	6.992E-06	6.417E-06	6.417E-06			
C	22.7	0.11	823.	0.	0.	89.7	51.2	89.7	3.051E-06	2.800E-06	2.800E-06			
D	0.2	0.01	823.	0.	0.	63.2	27.1	124.7	4.551E-04	7.248E-04	4.551E-04			
D	1.4	7.36	823.	0.	0.	63.2	27.1	124.7	6.501E-05	1.035E-04	6.501E-05			
D	3.1	16.61	823.	0.	0.	63.2	27.1	95.0	3.983E-05	4.832E-05	3.983E-05			
D	5.2	5.47	823.	0.	0.	63.2	27.1	69.3	3.278E-05	2.899E-05	2.899E-05			
D	7.6	0.74	823.	0.	0.	63.2	27.1	63.2	2.429E-05	1.959E-05	1.959E-05			
E	0.2	0.02	823.	0.	0.	44.9	18.7	132.5	6.730E-04	1.332E-03	6.730E-04			
E	1.3	4.73	823.	0.	0.	44.9	18.7	132.5	9.614E-05	1.903E-04	9.614E-05			
E	2.9	7.25	823.	0.	0.	44.9	18.7	92.8	6.402E-05	8.883E-05	6.402E-05			
E	4.8	3.15	823.	0.	0.	44.9	18.7	56.2	6.350E-05	5.330E-05	5.330E-05			
F	0.2	0.01	823.	0.	0.	31.0	12.0	121.7	1.141E-03	2.127E-03	1.141E-03			
F	1.3	5.04	823.	0.	0.	31.0	12.0	121.7	1.630E-04	3.039E-04	1.630E-04			
F	2.9	3.78	823.	0.	0.	31.0	12.0	77.6	1.193E-04	1.418E-04	1.193E-04			
F	4.8	0.84	823.	0.	0.	31.0	12.0	41.1	1.351E-04	8.509E-05	8.509E-05			
G	0.2	0.00	823.	0.	0.	21.4	7.7	125.7	1.720E-03	3.367E-03	1.720E-03			
G	1.3	6.62	823.	0.	0.	21.4	7.7	125.7	2.457E-04	4.809E-04	2.457E-04			
G	2.9	3.89	823.	0.	0.	21.4	7.7	70.2	2.053E-04	2.244E-04	2.053E-04			
G	4.8	0.63	823.	0.	0.	21.4	7.7	30.8	2.805E-04	1.347E-04	1.347E-04			

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1107 of 1411

RUN DATE: 01/09/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 13.7 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.4-21.1 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, 1984-1988, 1A met (w/ RT wind), RB Stack to EAB and LPZ

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

SW SECTOR BOUNDARY DISTANCE = 823.0 METERS

LATERAL PLUME MEANDER/BUILDING WAKE CREDIT ALLOWED

AS A FUNCTION OF DOWNWIND DISTANCE.

MEANDER CREDIT IS FOR WINDSPEEDS LESS THAN 6 MPS.

BUILDING WAKE CREDIT ALLOWED: C= 0.5 A= 2584. D= 54.3

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.720E-03	1.141E-03	6.730E-04	4.551E-04	3.080E-04	2.457E-04	2.053E-04	1.630E-04	1.347E-04	1.193E-04
0.004	0.017	0.033	0.040	0.049	6.671	10.559	15.604	16.235	20.018
0.00010	0.00039	0.00074	0.00091	0.00112	0.15095	0.23895	0.35311	0.36738	0.45300
9.614E-05	8.509E-05	6.501E-05	6.402E-05	5.330E-05	4.401E-05	3.983E-05	2.899E-05	2.054E-05	1.959E-05
24.748	25.589	32.946	40.198	43.351	46.819	63.425	68.890	73.304	74.040
0.56003	0.57905	0.74554	0.90965	0.98100	1.05948	1.43526	1.55893	1.65882	1.67547
1.232E-05	8.325E-06	6.417E-06	4.480E-06	2.800E-06	2.091E-06	1.254E-06	8.476E-07	6.534E-07	2.851E-07
77.719	78.244	78.349	86.862	86.967	95.481	99.264	99.790	99.895	100.000
1.75872	1.77061	1.77299	1.96563	1.96801	2.16066	2.24628	2.25817	2.26055	2.26292

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(2)=	0.151
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(3)=	0.239
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(4)=	0.353
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(5)=	1.434
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(6)=	1.557

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
3	1	-6.36563	-11.53414	-1.08647
3	2	-8.31154	-12.00718	-1.24596

Calculation No. PM-1055 Revision 0**Attachment J****Page 1108 of 1411**

3 3 -8.49120 -13.58817 -1.80621
3 4 -8.72174 -16.22000 -2.78303
3 5 -10.13086 -31.36974 -9.70718
3 6 -10.44855 NUMXQ(K) = 6

4.424E-04	0.023	1.000
3.180E-04	0.068	3.000
2.702E-04	0.113	5.000
2.098E-04	0.226	10.000
1.669E-04	0.339	15.000
1.291E-04	0.453	20.000
1.041E-04	0.566	25.000
8.700E-05	0.679	30.000
7.451E-05	0.792	35.000
6.500E-05	0.905	40.000
5.751E-05	1.018	45.000
5.147E-05	1.131	50.000
4.649E-05	1.245	55.000
4.232E-05	1.358	60.000
3.626E-05	1.471	65.000

1.174E-04 0.5 22.10

ANNUAL AVERAGE = 1.28E-06

K= 3 FIVEXQ(K) = 1.174E-04 FIVEPR(K) = 22.095

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1109 of 1411

RUN DATE: 01/09/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 13.7 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.4-21.1 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, 1984-1988, 1A met (w/ RT wind), RB Stack to EAB and LPZ

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE WSW SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN HT	EFF PLUME HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 10.0 METERS									CA=1292.SQ.METERS		
A	1.4	9.04	823.	0.	0.	157.1	310.1	157.1	4.518E-06	4.480E-06	4.480E-06
A	3.1	10.48	823.	0.	0.	157.1	310.1	157.1	2.108E-06	2.091E-06	2.091E-06
A	5.2	3.70	823.	0.	0.	157.1	310.1	157.1	1.265E-06	1.254E-06	1.254E-06
A	7.6	0.41	823.	0.	0.	157.1	310.1	157.1	8.548E-07	8.476E-07	8.476E-07
C	0.2	0.01	823.	0.	0.	89.7	51.2	89.7	3.356E-04	3.080E-04	3.080E-04
C	1.4	2.98	823.	0.	0.	89.7	51.2	89.7	4.795E-05	4.401E-05	4.401E-05
C	3.1	7.09	823.	0.	0.	89.7	51.2	89.7	2.238E-05	2.054E-05	2.054E-05
C	5.2	1.03	823.	0.	0.	89.7	51.2	89.7	1.343E-05	1.232E-05	1.232E-05
C	7.6	0.10	823.	0.	0.	89.7	51.2	89.7	9.071E-06	8.325E-06	8.325E-06
D	0.2	0.01	823.	0.	0.	63.2	27.1	124.7	4.551E-04	7.248E-04	4.551E-04
D	1.4	8.32	823.	0.	0.	63.2	27.1	124.7	6.501E-05	1.035E-04	6.501E-05
D	3.1	16.85	823.	0.	0.	63.2	27.1	95.0	3.983E-05	4.832E-05	3.983E-05
D	5.2	4.93	823.	0.	0.	63.2	27.1	69.3	3.278E-05	2.899E-05	2.899E-05
D	7.6	0.31	823.	0.	0.	63.2	27.1	63.2	2.429E-05	1.959E-05	1.959E-05
E	0.2	0.02	823.	0.	0.	44.9	18.7	132.5	6.730E-04	1.332E-03	6.730E-04
E	1.3	5.75	823.	0.	0.	44.9	18.7	132.5	9.614E-05	1.903E-04	9.614E-05
E	2.9	9.55	823.	0.	0.	44.9	18.7	92.8	6.402E-05	8.883E-05	6.402E-05
E	4.8	2.36	823.	0.	0.	44.9	18.7	56.2	6.350E-05	5.330E-05	5.330E-05
E	7.1	0.21	823.	0.	0.	44.9	18.7	44.9	5.365E-05	3.601E-05	3.601E-05
F	0.2	0.01	823.	0.	0.	31.0	12.0	121.7	1.141E-03	2.127E-03	1.141E-03
F	1.3	4.31	823.	0.	0.	31.0	12.0	121.7	1.630E-04	3.039E-04	1.630E-04
F	2.9	1.95	823.	0.	0.	31.0	12.0	77.6	1.193E-04	1.418E-04	1.193E-04
F	4.8	0.82	823.	0.	0.	31.0	12.0	41.1	1.351E-04	8.509E-05	8.509E-05
F	7.1	0.10	823.	0.	0.	31.0	12.0	31.0	1.210E-04	5.750E-05	5.750E-05
G	0.2	0.01	823.	0.	0.	21.4	7.7	125.7	1.720E-03	3.367E-03	1.720E-03
G	1.3	8.32	823.	0.	0.	21.4	7.7	125.7	2.457E-04	4.809E-04	2.457E-04
G	2.9	1.34	823.	0.	0.	21.4	7.7	70.2	2.053E-04	2.244E-04	2.053E-04

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1110 of 1411

RUN DATE: 01/09/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 13.7 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.4-21.1 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, 1984-1988, 1A met (w/ RT wind), RB Stack to EAB and LPZ

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

WSW SECTOR BOUNDARY DISTANCE = 823.0 METERS

LATERAL PLUME MEANDER/BUILDING WAKE CREDIT ALLOWED

AS A FUNCTION OF DOWNWIND DISTANCE.

MEANDER CREDIT IS FOR WINDSPEEDS LESS THAN 6 MPS.

BUILDING WAKE CREDIT ALLOWED: C= 0.5 A= 2584. D= 54.3

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.720E-03	1.141E-03	6.730E-04	4.551E-04	3.080E-04	2.457E-04	2.053E-04	1.630E-04	1.193E-04	9.614E-05
0.005	0.017	0.035	0.044	0.052	8.372	9.707	14.022	15.974	21.726
0.00013	0.00038	0.00081	0.00102	0.00120	0.19384	0.22476	0.32465	0.36984	0.50303
8.509E-05	6.501E-05	6.402E-05	5.750E-05	5.330E-05	4.401E-05	3.983E-05	3.601E-05	2.899E-05	2.054E-05
22.548	30.868	40.421	40.524	42.887	45.866	62.712	62.917	67.848	74.936
0.52205	0.71470	0.93589	0.93826	0.99297	1.06194	1.45199	1.45674	1.57090	1.73501
1.959E-05	1.232E-05	8.325E-06	4.480E-06	2.091E-06	1.254E-06	8.476E-07			
75.244	76.271	76.374	85.413	95.891	99.589	100.000			
1.74215	1.76593	1.76831	1.97760	2.22019	2.30581	2.31533			

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(2)=	0.194
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(3)=	0.324
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(4)=	0.935
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(5)=	1.450
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(6)=	1.733

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
4	1	-6.36563	-11.40345	-1.07047
4	2	-8.31154	-15.44082	-2.46828

Calculation No. PM-1055 Revision 0

Attachment J

Page 1111 of 1411

4 3 -8.72174 -15.58631 -2.52173
 4 4 -9.65636 -16.29212 -2.82188
 4 5 -10.13086 -30.47232 -9.31646
 4 6 -10.79333 NUMXQ(K)= 6

4.735E-04	0.023	1.000
3.419E-04	0.069	3.000
2.911E-04	0.116	5.000
2.138E-04	0.232	10.000
1.541E-04	0.347	15.000
1.206E-04	0.463	20.000
9.920E-05	0.579	25.000
8.425E-05	0.695	30.000
7.319E-05	0.810	35.000
6.465E-05	0.926	40.000
5.715E-05	1.042	45.000
5.105E-05	1.158	50.000
4.603E-05	1.273	55.000
4.183E-05	1.389	60.000
3.491E-05	1.505	65.000
2.651E-05	1.621	70.000

1.128E-04	0.5	21.60
-----------	-----	-------

ANNUAL AVERAGE = 1.36E-06

K= 4 FIVEXQ(K)= 1.128E-04 FIVEPR(K)=21.595

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 01/09/03

Page 1112 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Ground Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, 1984-1988, 1A met (w/ RT wind), RB Stack to EAB and LPZ

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 13.7 meters

DELTA-T HEIGHTS: 10.4-21.1 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE W SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 10.0 METERS												CA=1292.SQ.METERS		
A	1.4	7.99	823.	0.	0.	157.1	310.1	157.1	4.518E-06	4.480E-06	4.480E-06			
A	3.1	12.90	823.	0.	0.	157.1	310.1	157.1	2.108E-06	2.091E-06	2.091E-06			
A	5.2	4.32	823.	0.	0.	157.1	310.1	157.1	1.265E-06	1.254E-06	1.254E-06			
A	7.6	0.07	823.	0.	0.	157.1	310.1	157.1	8.548E-07	8.476E-07	8.476E-07			
A	22.7	0.07	823.	0.	0.	157.1	310.1	157.1	2.875E-07	2.851E-07	2.851E-07			
C	0.2	0.01	823.	0.	0.	89.7	51.2	89.7	3.356E-04	3.080E-04	3.080E-04			
C	1.4	2.36	823.	0.	0.	89.7	51.2	89.7	4.795E-05	4.401E-05	4.401E-05			
C	3.1	7.40	823.	0.	0.	89.7	51.2	89.7	2.238E-05	2.054E-05	2.054E-05			
C	5.2	3.01	823.	0.	0.	89.7	51.2	89.7	1.343E-05	1.232E-05	1.232E-05			
C	7.6	0.07	823.	0.	0.	89.7	51.2	89.7	9.071E-06	8.325E-06	8.325E-06			
D	0.2	0.01	823.	0.	0.	63.2	27.1	124.7	4.551E-04	7.248E-04	4.551E-04			
D	1.4	6.03	823.	0.	0.	63.2	27.1	124.7	6.501E-05	1.035E-04	6.501E-05			
D	3.1	14.21	823.	0.	0.	63.2	27.1	95.0	3.983E-05	4.832E-05	3.983E-05			
D	5.2	7.99	823.	0.	0.	63.2	27.1	69.3	3.278E-05	2.899E-05	2.899E-05			
D	7.6	1.44	823.	0.	0.	63.2	27.1	63.2	2.429E-05	1.959E-05	1.959E-05			
D	9.9	0.13	823.	0.	0.	63.2	27.1	63.2	1.872E-05	1.510E-05	1.510E-05			
E	0.2	0.01	823.	0.	0.	44.9	18.7	132.5	6.730E-04	1.332E-03	6.730E-04			
E	1.3	4.19	823.	0.	0.	44.9	18.7	132.5	9.614E-05	1.903E-04	9.614E-05			
E	2.9	6.16	823.	0.	0.	44.9	18.7	92.8	6.402E-05	8.883E-05	6.402E-05			
E	4.8	2.75	823.	0.	0.	44.9	18.7	56.2	6.350E-05	5.330E-05	5.330E-05			
E	7.1	1.64	823.	0.	0.	44.9	18.7	44.9	5.365E-05	3.601E-05	3.601E-05			
E	9.2	0.33	823.	0.	0.	44.9	18.7	44.9	4.135E-05	2.776E-05	2.776E-05			
F	0.2	0.01	823.	0.	0.	31.0	12.0	121.7	1.141E-03	2.127E-03	1.141E-03			
F	1.3	3.93	823.	0.	0.	31.0	12.0	121.7	1.630E-04	3.039E-04	1.630E-04			
F	2.9	2.75	823.	0.	0.	31.0	12.0	77.6	1.193E-04	1.418E-04	1.193E-04			
F	4.8	0.33	823.	0.	0.	31.0	12.0	41.1	1.351E-04	8.509E-05	8.509E-05			
F	7.1	0.79	823.	0.	0.	31.0	12.0	31.0	1.210E-04	5.750E-05	5.750E-05			
F	9.2	0.13	823.	0.	0.	31.0	12.0	31.0	9.328E-05	4.432E-05	4.432E-05			
G	0.2	0.00	823.	0.	0.	21.4	7.7	125.7	1.720E-03	3.367E-03	1.720E-03			
G	1.3	5.83	823.	0.	0.	21.4	7.7	125.7	2.457E-04	4.809E-04	2.457E-04			
G	2.9	3.14	823.	0.	0.	21.4	7.7	70.2	2.053E-04	2.244E-04	2.053E-04			

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1113 of 1411

RUN DATE: 01/09/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 13.7 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.4 21.1 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, 1984-1988, 1A met (w/ RT wind), RB Stack to EAB and LPZ

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

W SECTOR BOUNDARY DISTANCE = 823.0 METERS

LATERAL PLUME MEANDER/BUILDING WAKE CREDIT ALLOWED

AS A FUNCTION OF DOWNWIND DISTANCE.

MEANDER CREDIT IS FOR WINDSPEEDS LESS THAN 6 MPS.

BUILDING WAKE CREDIT ALLOWED: C= 0.5 A= 2584. D= 54.3

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.720E-03	1.141E-03	6.730E-04	4.551E-04	3.080E-04	2.457E-04	2.053E-04	1.630E-04	1.193E-04	9.614E-05
0.004	0.014	0.027	0.034	0.040	5.870	9.014	12.944	15.696	19.888
0.00014	0.00051	0.00100	0.00123	0.00145	0.21312	0.32728	0.46998	0.56988	0.72209
8.509E-05	6.501E-05	6.402E-05	5.750E-05	5.330E-05	4.432E-05	4.401E-05	3.983E-05	3.601E-05	2.899E-05
20.215	26.242	32.399	33.185	35.936	36.067	38.426	52.640	54.278	62.269
0.73398	0.95279	1.17635	1.20489	1.30478	1.30954	1.39516	1.91126	1.97072	2.26088
2.776E-05	2.054E-05	1.959E-05	1.510E-05	1.232E-05	8.325E-06	4.480E-06	2.091E-06	1.254E-06	8.476E-07
62.597	69.999	71.440	71.571	74.584	74.650	82.641	95.546	99.869	99.934
2.27277	2.54153	2.59385	2.59861	2.70801	2.71039	3.00055	3.46908	3.62605	3.62843
2.851E-07									
100.000									
3.63081									

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE (2)=	0.213
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE (3)=	0.327
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE (4)=	0.469
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE (5)=	1.175
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE (6)=	1.909

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(.7)= 2.259

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
5	1	-6.36563	-11.35347	-1.06420
5	2	-8.31154	-12.00847	-1.29336
5	3	-8.49120	-13.63331	-1.89083
5	4	-8.72174	-16.02623	-2.81205
5	5	-9.65636	-15.24477	-2.46707
5	6	-10.13086	-19.56371	-4.55062
5	7	-10.44855	NUMXQ(K)= 7	
		4.278E-04	0.036	1.000
		3.061E-04	0.109	3.000
		2.592E-04	0.182	5.000
		1.923E-04	0.363	10.000
		1.412E-04	0.545	15.000
		1.060E-04	0.726	20.000
		8.426E-05	0.908	25.000
		6.952E-05	1.089	30.000
		5.949E-05	1.271	35.000
		5.230E-05	1.452	40.000
		4.660E-05	1.634	45.000
		4.195E-05	1.815	50.000
		3.669E-05	1.997	55.000
		3.112E-05	2.178	60.000
		1.535E-04	0.5	13.77

ANNUAL AVERAGE = 1.78E-06

K= 5 FIVEXQ(K)= 1.535E-04 FIVEPR(K)=13.771

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 01/09/03

Page 1115 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Ground Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, 1984-1988, 1A met (w/ RT wind), RB Stack to EAB and LPZ

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 13.7 meters

DELTA-T HEIGHTS: 10.4-21.1 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE WNW SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 10.0 METERS												CA=1292.SQ.METERS		
A	1.4	5.61	823.	0.	0.	0.	157.1	310.1	157.1	4.518E-06	4.480E-06	4.480E-06		
A	3.1	13.30	823.	0.	0.	0.	157.1	310.1	157.1	2.108E-06	2.091E-06	2.091E-06		
A	5.2	3.70	823.	0.	0.	0.	157.1	310.1	157.1	1.265E-06	1.254E-06	1.254E-06		
A	7.6	0.42	823.	0.	0.	0.	157.1	310.1	157.1	8.548E-07	8.476E-07	8.476E-07		
A	9.9	0.08	823.	0.	0.	0.	157.1	310.1	157.1	6.589E-07	6.534E-07	6.534E-07		
C	0.2	0.00	823.	0.	0.	0.	89.7	51.2	89.7	3.356E-04	3.080E-04	3.080E-04		
C	1.4	1.87	823.	0.	0.	0.	89.7	51.2	89.7	4.795E-05	4.401E-05	4.401E-05		
C	3.1	5.14	823.	0.	0.	0.	89.7	51.2	89.7	2.238E-05	2.054E-05	2.054E-05		
C	5.2	3.44	823.	0.	0.	0.	89.7	51.2	89.7	1.343E-05	1.232E-05	1.232E-05		
C	7.6	0.64	823.	0.	0.	0.	89.7	51.2	89.7	9.071E-06	8.325E-06	8.325E-06		
C	9.9	0.08	823.	0.	0.	0.	89.7	51.2	89.7	6.992E-06	6.417E-06	6.417E-06		
D	0.2	0.00	823.	0.	0.	0.	63.2	27.1	124.7	4.551E-04	7.248E-04	4.551E-04		
D	1.4	3.95	823.	0.	0.	0.	63.2	27.1	124.7	6.501E-05	1.035E-04	6.501E-05		
D	3.1	11.34	823.	0.	0.	0.	63.2	27.1	95.0	3.983E-05	4.832E-05	3.983E-05		
D	5.2	8.92	823.	0.	0.	0.	63.2	27.1	69.3	3.278E-05	2.899E-05	2.899E-05		
D	7.6	1.91	823.	0.	0.	0.	63.2	27.1	63.2	2.429E-05	1.959E-05	1.959E-05		
D	9.9	0.17	823.	0.	0.	0.	63.2	27.1	63.2	1.872E-05	1.510E-05	1.510E-05		
E	0.2	0.01	823.	0.	0.	0.	44.9	18.7	132.5	6.730E-04	1.332E-03	6.730E-04		
E	1.3	4.63	823.	0.	0.	0.	44.9	18.7	132.5	9.614E-05	1.903E-04	9.614E-05		
E	2.9	7.56	823.	0.	0.	0.	44.9	18.7	92.8	6.402E-05	8.883E-05	6.402E-05		
E	4.8	5.06	823.	0.	0.	0.	44.9	18.7	56.2	6.350E-05	5.330E-05	5.330E-05		
E	7.1	0.98	823.	0.	0.	0.	44.9	18.7	44.9	5.365E-05	3.601E-05	3.601E-05		
E	21.0	0.08	823.	0.	0.	0.	44.9	18.7	44.9	1.804E-05	1.211E-05	1.211E-05		
F	0.2	0.01	823.	0.	0.	0.	31.0	12.0	121.7	1.141E-03	2.127E-03	1.141E-03		
F	1.3	4.08	823.	0.	0.	0.	31.0	12.0	121.7	1.630E-04	3.039E-04	1.630E-04		
F	2.9	4.21	823.	0.	0.	0.	31.0	12.0	77.6	1.193E-04	1.418E-04	1.193E-04		
F	4.8	1.27	823.	0.	0.	0.	31.0	12.0	41.1	1.351E-04	8.509E-05	8.509E-05		
F	21.0	0.04	823.	0.	0.	0.	31.0	12.0	31.0	4.071E-05	1.934E-05	1.934E-05		
G	0.2	0.00	823.	0.	0.	0.	21.4	7.7	125.7	1.720E-03	3.367E-03	1.720E-03		
G	1.3	5.61	823.	0.	0.	0.	21.4	7.7	125.7	2.457E-04	4.809E-04	2.457E-04		
G	2.9	4.80	823.	0.	0.	0.	21.4	7.7	70.2	2.053E-04	2.244E-04	2.053E-04		
G	4.8	1.06	823.	0.	0.	0.	21.4	7.7	30.8	2.805E-04	1.347E-04	1.347E-04		

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 1116 of 1411**

RUN DATE: 01/09/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 13.7 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.4-21.1 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, 1984-1988, 1A met (w/ RT wind), RB Stack to EAB and LPZ

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

WNW SECTOR BOUNDARY DISTANCE = 823.0 METERS

LATERAL PLUME MEANDER/BUILDING WAKE CREDIT ALLOWED

AS A FUNCTION OF DOWNWIND DISTANCE.

MEANDER CREDIT IS FOR WINDSPEEDS LESS THAN 6 MPS.

BUILDING WAKE CREDIT ALLOWED: C= 0.5 A= 2584. D= 54.3

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.720E-03	1.141E-03	6.730E-04	4.551E-04	3.080E-04	2.457E-04	2.053E-04	1.630E-04	1.347E-04	1.193E-04
0.004	0.014	0.029	0.033	0.038	5.646	10.446	14.525	15.587	19.793
0.00021	0.00079	0.00163	0.00187	0.00214	0.31608	0.58483	0.81315	0.87261	1.10807
9.614E-05	8.509E-05	6.501E-05	6.402E-05	5.330E-05	4.401E-05	3.983E-05	3.601E-05	2.899E-05	2.054E-05
24.423	25.698	29.649	37.211	42.266	44.135	55.478	56.455	65.377	70.517
1.36731	1.43866	1.65984	2.08319	2.36621	2.47086	3.10588	3.16058	3.66003	3.94781
1.959E-05	1.934E-05	1.510E-05	1.232E-05	1.211E-05	8.325E-06	6.417E-06	4.480E-06	2.091E-06	1.254E-06
72.429	72.471	72.641	76.082	76.167	76.804	76.889	82.497	95.794	99.490
4.05484	4.05722	4.06673	4.25938	4.26413	4.29981	4.30457	4.61851	5.36293	5.56985
8.476E-07	6.534E-07								
99.915	100.000								
5.59363	5.59839								

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(2)=	0.584
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(3)=	0.812
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(4)=	2.081
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(5)=	3.103
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(6)=	3.657

K	I	XQSAVE(K, I)	XQINT(K, I)	XQSLOP(K, I)
6	1	-6.36563	-11.06308	-1.01995
6	2	-8.49120	-13.40970	-1.95056
6	3	-8.72174	-14.85755	-2.55298
6	4	-9.65636	-15.29544	-2.76792
6	5	-10.13086	-18.15269	-4.29924
6	6	-10.44855	NUMXQ(K) = 6	
		4.354E-04	0.056	1.000
		3.123E-04	0.168	3.000
		2.647E-04	0.280	5.000
		2.085E-04	0.560	10.000
		1.582E-04	0.840	15.000
		1.202E-04	1.120	20.000
		9.645E-05	1.400	25.000
		8.016E-05	1.680	30.000
		6.830E-05	1.959	35.000
		5.888E-05	2.239	40.000
		5.127E-05	2.519	45.000
		4.520E-05	2.799	50.000
		4.026E-05	3.079	55.000
		3.427E-05	3.359	60.000
		2.932E-05	3.639	65.000
		2.170E-04	0.5	8.93

ANNUAL AVERAGE = 2.78E-06

K= 6 FIVEXQ(K) = 2.170E-04 FIVEPR(K) = 8.931

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 01/09/03

Page 1118 of 1411

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 13.7 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.4-21.1 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, 1984-1988, 1A met (w/ RT wind), RB Stack to EAB and LPZ

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE NW SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 10.0 METERS												CA=1292.SQ.METERS		
A	1.4	3.27	823.	0.	0.	157.1	310.1	157.1	4.518E-06	4.480E-06	4.480E-06			
A	3.1	11.23	823.	0.	0.	157.1	310.1	157.1	2.108E-06	2.091E-06	2.091E-06			
A	5.2	7.67	823.	0.	0.	157.1	310.1	157.1	1.265E-06	1.254E-06	1.254E-06			
A	7.6	0.53	823.	0.	0.	157.1	310.1	157.1	8.548E-07	8.476E-07	8.476E-07			
A	22.7	0.03	823.	0.	0.	157.1	310.1	157.1	2.875E-07	2.851E-07	2.851E-07			
C	0.2	0.00	823.	0.	0.	89.7	51.2	89.7	3.356E-04	3.080E-04	3.080E-04			
C	1.4	1.28	823.	0.	0.	89.7	51.2	89.7	4.795E-05	4.401E-05	4.401E-05			
C	3.1	3.65	823.	0.	0.	89.7	51.2	89.7	2.238E-05	2.054E-05	2.054E-05			
C	5.2	2.74	823.	0.	0.	89.7	51.2	89.7	1.343E-05	1.232E-05	1.232E-05			
C	7.6	0.53	823.	0.	0.	89.7	51.2	89.7	9.071E-06	8.325E-06	8.325E-06			
C	9.9	0.03	823.	0.	0.	89.7	51.2	89.7	6.992E-06	6.417E-06	6.417E-06			
D	0.2	0.00	823.	0.	0.	63.2	27.1	124.7	4.551E-04	7.248E-04	4.551E-04			
D	1.4	2.74	823.	0.	0.	63.2	27.1	124.7	6.501E-05	1.035E-04	6.501E-05			
D	3.1	9.58	823.	0.	0.	63.2	27.1	95.0	3.983E-05	4.832E-05	3.983E-05			
D	5.2	7.88	823.	0.	0.	63.2	27.1	69.3	3.278E-05	2.899E-05	2.899E-05			
D	7.6	1.17	823.	0.	0.	63.2	27.1	63.2	2.429E-05	1.959E-05	1.959E-05			
D	9.9	0.19	823.	0.	0.	63.2	27.1	63.2	1.872E-05	1.510E-05	1.510E-05			
D	22.7	0.03	823.	0.	0.	63.2	27.1	63.2	8.169E-06	6.589E-06	6.589E-06			
E	0.2	0.01	823.	0.	0.	44.9	18.7	132.5	6.730E-04	1.332E-03	6.730E-04			
E	1.3	4.13	823.	0.	0.	44.9	18.7	132.5	9.614E-05	1.903E-04	9.614E-05			
E	2.9	9.10	823.	0.	0.	44.9	18.7	92.8	6.402E-05	8.883E-05	6.402E-05			
E	4.8	5.24	823.	0.	0.	44.9	18.7	56.2	6.350E-05	5.330E-05	5.330E-05			
E	7.1	0.53	823.	0.	0.	44.9	18.7	44.9	5.365E-05	3.601E-05	3.601E-05			
E	9.2	0.03	823.	0.	0.	44.9	18.7	44.9	4.135E-05	2.776E-05	2.776E-05			
E	21.0	0.03	823.	0.	0.	44.9	18.7	44.9	1.804E-05	1.211E-05	1.211E-05			
F	0.2	0.01	823.	0.	0.	31.0	12.0	121.7	1.141E-03	2.127E-03	1.141E-03			
F	1.3	4.45	823.	0.	0.	31.0	12.0	121.7	1.630E-04	3.039E-04	1.630E-04			
F	2.9	6.07	823.	0.	0.	31.0	12.0	77.6	1.193E-04	1.418E-04	1.193E-04			
F	4.8	1.78	823.	0.	0.	31.0	12.0	41.1	1.351E-04	8.509E-05	8.509E-05			
G	0.2	0.00	823.	0.	0.	21.4	7.7	125.7	1.720E-03	3.367E-03	1.720E-03			
G	1.3	7.13	823.	0.	0.	21.4	7.7	125.7	2.457E-04	4.809E-04	2.457E-04			
G	2.9	8.33	823.	0.	0.	21.4	7.7	70.2	2.053E-04	2.244E-04	2.053E-04			
G	4.8	0.59	823.	0.	0.	21.4	7.7	30.8	2.805E-04	1.347E-04	1.347E-04			

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1119 of 1411

RUN DATE: 01/09/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 13.7 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.4 21.1 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, 1984-1988, 1A met (w/ RT wind), RB Stack to EAB and LPZ

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

NW SECTOR BOUNDARY DISTANCE = 823.0 METERS

LATERAL PLUME MEANDER/BUILDING WAKE CREDIT ALLOWED

AS A FUNCTION OF DOWNWIND DISTANCE.

MEANDER CREDIT IS FOR WINDSPEEDS LESS THAN 6 MPS.

BUILDING WAKE CREDIT ALLOWED: C= 0.5 A= 2584. D= 54.3

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.720E-03	1.141E-03	6.730E-04	4.551E-04	3.080E-04	2.457E-04	2.053E-04	1.630E-04	1.347E-04	1.193E-04
0.005	0.016	0.029	0.032	0.036	7.170	15.503	19.949	20.534	26.604
0.00042	0.00144	0.00263	0.00289	0.00319	0.64058	1.38500	1.78219	1.83451	2.37678
9.614E-05	8.509E-05	6.501E-05	6.402E-05	5.330E-05	4.401E-05	3.983E-05	3.601E-05	2.899E-05	2.776E-05
30.730	32.514	35.256	44.361	49.605	50.883	60.467	60.999	68.879	68.906
2.74542	2.90477	3.14974	3.96313	4.43167	4.54583	5.40203	5.44960	6.15359	6.15597
2.054E-05	1.959E-05	1.510E-05	1.232E-05	1.211E-05	8.325E-06	6.589E-06	6.417E-06	4.480E-06	2.091E-06
72.553	73.724	73.911	76.653	76.679	77.212	77.238	77.265	80.540	91.774
6.48180	6.58645	6.60310	6.84807	6.85045	6.89801	6.90039	6.90277	7.19531	8.19897
1.254E-06	8.476E-07	2.851E-07							
99.441	99.973	100.000							
8.88393	8.93150	8.93388							

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE (3) =	1.780
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE (4) =	2.374
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE (5) =	3.960
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE (6) =	5.398
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE (7) =	6.150

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
7	1	-6.36563	-10.56761	-0.94299
7	2	-8.49120	-13.54038	-2.29305
7	3	-8.72174	-14.21838	-2.61569
7	4	-9.03426	-14.47632	-2.74584
7	5	-9.65636	-15.28557	-3.20685
7	6	-10.13086	-17.97718	-4.88136
7	7	-10.44855	NUMXQ(K) = 7	

4.896E-04	0.089	1.000
3.557E-04	0.268	3.000
3.030E-04	0.447	5.000
2.402E-04	0.893	10.000
2.078E-04	1.340	15.000
1.626E-04	1.787	20.000
1.277E-04	2.233	25.000
1.035E-04	2.680	30.000
8.600E-05	3.127	35.000
7.294E-05	3.574	40.000
6.267E-05	4.020	45.000
5.348E-05	4.467	50.000
4.620E-05	4.914	55.000
4.032E-05	5.360	60.000
3.343E-05	5.807	65.000

2.921E-04	0.5	5.60
-----------	-----	------

ANNUAL AVERAGE = 4.94E-06

K= 7 FIVEXQ(K) = 2.921E-04 FIVEPR(K) = 5.597

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1121 of 1411

RUN DATE: 01/09/03

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Ground Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, 1984-1988, 1A met (w/ RT wind), RB Stack to EAB and LPZ

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 13.7 meters

DELTA-T HEIGHTS: 10.4-21.1 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE NNW SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 10.0 METERS												CA=1292.SQ.METERS		
A	1.4	1.35	823.	0.	0.	0.	157.1	310.1	157.1	4.518E-06	4.480E-06	4.480E-06		
A	3.1	4.42	823.	0.	0.	0.	157.1	310.1	157.1	2.108E-06	2.091E-06	2.091E-06		
A	5.2	7.84	823.	0.	0.	0.	157.1	310.1	157.1	1.265E-06	1.254E-06	1.254E-06		
A	7.6	4.42	823.	0.	0.	0.	157.1	310.1	157.1	8.548E-07	8.476E-07	8.476E-07		
A	9.9	0.32	823.	0.	0.	0.	157.1	310.1	157.1	6.589E-07	6.534E-07	6.534E-07		
C	0.2	0.00	823.	0.	0.	0.	89.7	51.2	89.7	3.356E-04	3.080E-04	3.080E-04		
C	1.4	0.51	823.	0.	0.	0.	89.7	51.2	89.7	4.795E-05	4.401E-05	4.401E-05		
C	3.1	1.51	823.	0.	0.	0.	89.7	51.2	89.7	2.238E-05	2.054E-05	2.054E-05		
C	5.2	2.56	823.	0.	0.	0.	89.7	51.2	89.7	1.343E-05	1.232E-05	1.232E-05		
C	7.6	1.40	823.	0.	0.	0.	89.7	51.2	89.7	9.071E-06	8.325E-06	8.325E-06		
C	9.9	0.22	823.	0.	0.	0.	89.7	51.2	89.7	6.992E-06	6.417E-06	6.417E-06		
C	22.7	0.03	823.	0.	0.	0.	89.7	51.2	89.7	3.051E-06	2.800E-06	2.800E-06		
D	0.2	0.00	823.	0.	0.	0.	63.2	27.1	124.7	4.551E-04	7.248E-04	4.551E-04		
D	1.4	1.29	823.	0.	0.	0.	63.2	27.1	124.7	6.501E-05	1.035E-04	6.501E-05		
D	3.1	4.42	823.	0.	0.	0.	63.2	27.1	95.0	3.983E-05	4.832E-05	3.983E-05		
D	5.2	9.89	823.	0.	0.	0.	63.2	27.1	69.3	3.278E-05	2.899E-05	2.899E-05		
D	7.6	4.34	823.	0.	0.	0.	63.2	27.1	63.2	2.429E-05	1.959E-05	1.959E-05		
D	9.9	1.00	823.	0.	0.	0.	63.2	27.1	63.2	1.872E-05	1.510E-05	1.510E-05		
E	0.2	0.01	823.	0.	0.	0.	44.9	18.7	132.5	6.730E-04	1.332E-03	6.730E-04		
E	1.3	2.13	823.	0.	0.	0.	44.9	18.7	132.5	9.614E-05	1.903E-04	9.614E-05		
E	2.9	5.85	823.	0.	0.	0.	44.9	18.7	92.8	6.402E-05	8.883E-05	6.402E-05		
E	4.8	8.94	823.	0.	0.	0.	44.9	18.7	56.2	6.350E-05	5.330E-05	5.330E-05		
E	7.1	2.77	823.	0.	0.	0.	44.9	18.7	44.9	5.365E-05	3.601E-05	3.601E-05		
E	9.2	0.59	823.	0.	0.	0.	44.9	18.7	44.9	4.135E-05	2.776E-05	2.776E-05		
F	0.2	0.01	823.	0.	0.	0.	31.0	12.0	121.7	1.141E-03	2.127E-03	1.141E-03		
F	1.3	3.21	823.	0.	0.	0.	31.0	12.0	121.7	1.630E-04	3.039E-04	1.630E-04		
F	2.9	6.68	823.	0.	0.	0.	31.0	12.0	77.6	1.193E-04	1.418E-04	1.193E-04		
F	4.8	4.93	823.	0.	0.	0.	31.0	12.0	41.1	1.351E-04	8.509E-05	8.509E-05		
F	7.1	0.48	823.	0.	0.	0.	31.0	12.0	31.0	1.210E-04	5.750E-05	5.750E-05		
G	0.2	0.01	823.	0.	0.	0.	21.4	7.7	125.7	1.720E-03	3.367E-03	1.720E-03		
G	1.3	8.46	823.	0.	0.	0.	21.4	7.7	125.7	2.457E-04	4.809E-04	2.457E-04		
G	2.9	8.46	823.	0.	0.	0.	21.4	7.7	70.2	2.053E-04	2.244E-04	2.053E-04		
G	4.8	1.67	823.	0.	0.	0.	21.4	7.7	30.8	2.805E-04	1.347E-04	1.347E-04		

Calculation No. PM-1055 Revision 0

G	7.1	0.24	823.	0.	0.
G	9.2	0.03	823.	0.	0.
G	21.0	0.03	823.	0.	0.

Attachment J

21.4	7.7	21.4	2.730E-04	9.099E-05	9.099E-05
21.4	7.7	21.4	2.104E-04	7.014E-05	7.014E-05
21.4	7.7	21.4	9.182E-05	3.061E-05	3.061E-05

Page 1122 of 1411

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1123 of 1411

RUN DATE: 01/09/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 13.7 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.4-21.1 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, 1984-1988, 1A met (w/ RT wind), RB Stack to EAB and LPZ

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

NNW SECTOR BOUNDARY DISTANCE = 823.0 METERS

LATERAL PLUME MEANDER/BUILDING WAKE CREDIT ALLOWED

AS A FUNCTION OF DOWNWIND DISTANCE.

MEANDER CREDIT IS FOR WINDSPEEDS LESS THAN 6 MPS.

BUILDING WAKE CREDIT ALLOWED: C= 0.5 A= 2584. D= 54.3

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.720E-03	1.141E-03	6.730E-04	4.551E-04	3.080E-04	2.457E-04	2.053E-04	1.630E-04	1.347E-04	1.193E-04
0.006	0.014	0.021	0.022	0.023	8.483	16.942	20.148	21.818	28.500
0.00049	0.00122	0.00182	0.00194	0.00206	0.74886	1.49566	1.77869	1.92614	2.51598
9.614E-05	9.099E-05	8.509E-05	7.014E-05	6.501E-05	6.402E-05	5.750E-05	5.330E-05	4.401E-05	3.983E-05
30.628	30.870	35.801	35.827	37.121	42.967	43.452	52.396	52.908	57.326
2.70386	2.72527	3.16051	3.16289	3.27705	3.79315	3.83596	4.62557	4.67076	5.06081
3.601E-05	3.061E-05	2.899E-05	2.776E-05	2.054E-05	1.959E-05	1.510E-05	1.232E-05	8.325E-06	6.417E-06
60.101	60.128	70.015	70.608	72.116	76.454	77.451	80.010	81.411	81.626
5.30578	5.30815	6.18101	6.23333	6.36652	6.74943	6.83743	7.06338	7.18705	7.20608
4.480E-06	2.800E-06	2.091E-06	1.254E-06	8.476E-07	6.534E-07				
82.974	83.000	87.419	95.258	99.677	100.000				
7.32499	7.32737	7.71742	8.40952	8.79957	8.82811				

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 2.513
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 4.622
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 6.177
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(6)= 6.746

Calculation No. PM-1055 Revision 0

Attachment J

Page 1124 of 1411

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
8	1	-6.36563	-10.54254	-0.94459
8	2	-8.49120	-14.00195	-2.53755
8	3	-9.03426	-14.76769	-2.92870
8	4	-9.83966	-17.02468	-4.27002
8	5	-10.44855	-23.84802	-8.70055
8	6	-10.84059	NUMXQ(K) = 6	

5.062E-04	0.088	1.000
3.677E-04	0.265	3.000
3.132E-04	0.441	5.000
2.483E-04	0.883	10.000
2.147E-04	1.324	15.000
1.734E-04	1.766	20.000
1.373E-04	2.207	25.000
1.118E-04	2.648	30.000
9.176E-05	3.090	35.000
7.700E-05	3.531	40.000
6.573E-05	3.973	45.000
5.688E-05	4.414	50.000
4.825E-05	4.855	55.000
4.028E-05	5.297	60.000
3.401E-05	5.738	65.000
2.900E-05	6.180	70.000
2.135E-05	6.621	75.000

3.008E-04	0.5	5.66
-----------	-----	------

ANNUAL AVERAGE = 4.68E-06

K= 8 FIVEXQ(K)= 3.008E-04 FIVEPR(K)= 5.664

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1125 of 1411

RUN DATE: 01/09/03

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Ground Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, 1984-1988, 1A met (w/ RT wind), RB Stack to EAB and LPZ

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 13.7 meters

DELTA-T HEIGHTS: 10.4-21.1 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE N SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 10.0 METERS												CA=1292.SQ.METERS		
A	1.4	2.85	823.	0.	0.	0.	157.1	310.1	157.1	4.518E-06	4.480E-06	4.480E-06		
A	3.1	3.39	823.	0.	0.	0.	157.1	310.1	157.1	2.108E-06	2.091E-06	2.091E-06		
A	5.2	7.70	823.	0.	0.	0.	157.1	310.1	157.1	1.265E-06	1.254E-06	1.254E-06		
A	7.6	3.19	823.	0.	0.	0.	157.1	310.1	157.1	8.548E-07	8.476E-07	8.476E-07		
C	0.2	0.00	823.	0.	0.	0.	89.7	51.2	89.7	3.356E-04	3.080E-04	3.080E-04		
C	1.4	0.64	823.	0.	0.	0.	89.7	51.2	89.7	4.795E-05	4.401E-05	4.401E-05		
C	3.1	1.33	823.	0.	0.	0.	89.7	51.2	89.7	2.238E-05	2.054E-05	2.054E-05		
C	5.2	2.94	823.	0.	0.	0.	89.7	51.2	89.7	1.343E-05	1.232E-05	1.232E-05		
C	7.6	0.59	823.	0.	0.	0.	89.7	51.2	89.7	9.071E-06	8.325E-06	8.325E-06		
D	0.2	0.00	823.	0.	0.	0.	63.2	27.1	124.7	4.551E-04	7.248E-04	4.551E-04		
D	1.4	1.67	823.	0.	0.	0.	63.2	27.1	124.7	6.501E-05	1.035E-04	6.501E-05		
D	3.1	5.64	823.	0.	0.	0.	63.2	27.1	95.0	3.983E-05	4.832E-05	3.983E-05		
D	5.2	7.31	823.	0.	0.	0.	63.2	27.1	69.3	3.278E-05	2.899E-05	2.899E-05		
D	7.6	1.86	823.	0.	0.	0.	63.2	27.1	63.2	2.429E-05	1.959E-05	1.959E-05		
D	9.9	0.05	823.	0.	0.	0.	63.2	27.1	63.2	1.872E-05	1.510E-05	1.510E-05		
E	0.2	0.01	823.	0.	0.	0.	44.9	18.7	132.5	6.730E-04	1.332E-03	6.730E-04		
E	1.3	1.82	823.	0.	0.	0.	44.9	18.7	132.5	9.614E-05	1.903E-04	9.614E-05		
E	2.9	7.51	823.	0.	0.	0.	44.9	18.7	92.8	6.402E-05	8.883E-05	6.402E-05		
E	4.8	4.81	823.	0.	0.	0.	44.9	18.7	56.2	6.350E-05	5.330E-05	5.330E-05		
E	7.1	0.83	823.	0.	0.	0.	44.9	18.7	44.9	5.365E-05	3.601E-05	3.601E-05		
E	9.2	0.29	823.	0.	0.	0.	44.9	18.7	44.9	4.135E-05	2.776E-05	2.776E-05		
F	0.2	0.01	823.	0.	0.	0.	31.0	12.0	121.7	1.141E-03	2.127E-03	1.141E-03		
F	1.3	4.86	823.	0.	0.	0.	31.0	12.0	121.7	1.630E-04	3.039E-04	1.630E-04		
F	2.9	6.28	823.	0.	0.	0.	31.0	12.0	77.6	1.193E-04	1.418E-04	1.193E-04		
F	4.8	3.24	823.	0.	0.	0.	31.0	12.0	41.1	1.351E-04	8.509E-05	8.509E-05		
F	7.1	0.25	823.	0.	0.	0.	31.0	12.0	31.0	1.210E-04	5.750E-05	5.750E-05		
G	0.2	0.01	823.	0.	0.	0.	21.4	7.7	125.7	1.720E-03	3.367E-03	1.720E-03		
G	1.3	17.52	823.	0.	0.	0.	21.4	7.7	125.7	2.457E-04	4.809E-04	2.457E-04		
G	2.9	11.48	823.	0.	0.	0.	21.4	7.7	70.2	2.053E-04	2.244E-04	2.053E-04		
G	4.8	1.57	823.	0.	0.	0.	21.4	7.7	30.8	2.805E-04	1.347E-04	1.347E-04		
G	7.1	0.25	823.	0.	0.	0.	21.4	7.7	21.4	2.730E-04	9.099E-05	9.099E-05		
G	9.2	0.10	823.	0.	0.	0.	21.4	7.7	21.4	2.104E-04	7.014E-05	7.014E-05		

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1126 of 1411

RUN DATE: 01/09/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 13.7 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.4-21.1 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, 1984-1988, 1A met (w/ RT wind), RB Stack to EAB and LPZ

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

N SECTOR BOUNDARY DISTANCE = 823.0 METERS

LATERAL PLUME MEANDER/BUILDING WAKE CREDIT ALLOWED

AS A FUNCTION OF DOWNWIND DISTANCE.

MEANDER CREDIT IS FOR WINDSPEEDS LESS THAN 6 MPS.

BUILDING WAKE CREDIT ALLOWED: C= 0.5 A= 2584. D= 54.3

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.720E-03	1.141E-03	6.730E-04	4.551E-04	3.080E-04	2.457E-04	2.053E-04	1.630E-04	1.347E-04	1.193E-04
0.011	0.024	0.030	0.032	0.033	17.553	29.037	33.895	35.466	41.747
0.00056	0.00116	0.00145	0.00153	0.00161	0.85068	1.40721	1.64267	1.71878	2.02321
9.614E-05	9.099E-05	8.509E-05	7.014E-05	6.501E-05	6.402E-05	5.750E-05	5.330E-05	4.401E-05	3.983E-05
43.563	43.809	47.048	47.146	48.814	56.323	56.568	61.378	62.016	67.659
2.11121	2.12310	2.28007	2.28482	2.36569	2.72958	2.74147	2.97455	3.00546	3.27897
3.601E-05	2.899E-05	2.776E-05	2.054E-05	1.959E-05	1.510E-05	1.232E-05	8.325E-06	4.480E-06	2.091E-06
68.494	75.806	76.100	77.425	79.290	79.339	82.284	82.873	85.719	89.105
3.31941	3.67378	3.68805	3.75227	3.84264	3.84502	3.98772	4.01626	4.15421	4.31831
1.254E-06	8.476E-07								
96.810	100.000								
4.69171	4.84630								

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 2.021
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 2.972
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 3.671

K I XQSAVE(K,I) XQINT(K,I) XQSLOP(K,I)

Calculation No. PM-1055 Revision 0

Attachment J

Page 1127 of 1411

```

9 1      -6.36563 -10.61414 -0.96686
9 2      -8.49120 -16.64203 -3.71216
9 3      -9.03426 -19.07129 -4.89750
9 4      -9.83966 -21.95903 -6.42948
9 5      -10.44855      NUMXQ(K) = 5

```

5.968E-04	0.048	1.000
4.372E-04	0.145	3.000
3.744E-04	0.242	5.000
2.997E-04	0.485	10.000
2.610E-04	0.727	15.000
2.356E-04	0.969	20.000
2.171E-04	1.212	25.000
1.957E-04	1.454	30.000
1.558E-04	1.696	35.000
1.273E-04	1.939	40.000
1.023E-04	2.181	45.000
8.231E-05	2.423	50.000
6.737E-05	2.665	55.000
5.596E-05	2.908	60.000
4.527E-05	3.150	65.000
3.658E-05	3.392	70.000
2.991E-05	3.635	75.000

2.966E-04	0.5	10.32
-----------	-----	-------

ANNUAL AVERAGE = 3.81E-06

K= 9 FIVEXQ(K) = 2.966E-04 FIVEPR(K) = 10.317

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 01/09/03

Page 1128 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Ground Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, 1984-1988, 1A met (w/ RT wind), RB Stack to EAB and LPZ

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 13.7 meters

DELTA-T HEIGHTS: 10.4-21.1 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE NNE SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 10.0 METERS												CA=1292.SQ.METERS		
A	1.4	3.24	823.	0.	0.	157.1	310.1	157.1	4.518E-06	4.480E-06	4.480E-06			
A	3.1	3.55	823.	0.	0.	157.1	310.1	157.1	2.108E-06	2.091E-06	2.091E-06			
A	5.2	3.66	823.	0.	0.	157.1	310.1	157.1	1.265E-06	1.254E-06	1.254E-06			
A	7.6	1.05	823.	0.	0.	157.1	310.1	157.1	8.548E-07	8.476E-07	8.476E-07			
A	9.9	0.10	823.	0.	0.	157.1	310.1	157.1	6.589E-07	6.534E-07	6.534E-07			
C	0.2	0.00	823.	0.	0.	89.7	51.2	89.7	3.356E-04	3.080E-04	3.080E-04			
C	1.4	0.42	823.	0.	0.	89.7	51.2	89.7	4.795E-05	4.401E-05	4.401E-05			
C	3.1	1.88	823.	0.	0.	89.7	51.2	89.7	2.238E-05	2.054E-05	2.054E-05			
C	5.2	1.78	823.	0.	0.	89.7	51.2	89.7	1.343E-05	1.232E-05	1.232E-05			
C	7.6	0.31	823.	0.	0.	89.7	51.2	89.7	9.071E-06	8.325E-06	8.325E-06			
C	9.9	0.10	823.	0.	0.	89.7	51.2	89.7	6.992E-06	6.417E-06	6.417E-06			
D	0.2	0.00	823.	0.	0.	63.2	27.1	124.7	4.551E-04	7.248E-04	4.551E-04			
D	1.4	1.78	823.	0.	0.	63.2	27.1	124.7	6.501E-05	1.035E-04	6.501E-05			
D	3.1	6.59	823.	0.	0.	63.2	27.1	95.0	3.983E-05	4.832E-05	3.983E-05			
D	5.2	5.96	823.	0.	0.	63.2	27.1	69.3	3.278E-05	2.899E-05	2.899E-05			
D	7.6	1.46	823.	0.	0.	63.2	27.1	63.2	2.429E-05	1.959E-05	1.959E-05			
E	0.2	0.02	823.	0.	0.	44.9	18.7	132.5	6.730E-04	1.332E-03	6.730E-04			
E	1.3	4.70	823.	0.	0.	44.9	18.7	132.5	9.614E-05	1.903E-04	9.614E-05			
E	2.9	5.33	823.	0.	0.	44.9	18.7	92.8	6.402E-05	8.883E-05	6.402E-05			
E	4.8	2.51	823.	0.	0.	44.9	18.7	56.2	6.350E-05	5.330E-05	5.330E-05			
E	7.1	0.10	823.	0.	0.	44.9	18.7	44.9	5.365E-05	3.601E-05	3.601E-05			
F	0.2	0.01	823.	0.	0.	31.0	12.0	121.7	1.141E-03	2.127E-03	1.141E-03			
F	1.3	5.33	823.	0.	0.	31.0	12.0	121.7	1.630E-04	3.039E-04	1.630E-04			
F	2.9	4.60	823.	0.	0.	31.0	12.0	77.6	1.193E-04	1.418E-04	1.193E-04			
F	4.8	1.46	823.	0.	0.	31.0	12.0	41.1	1.351E-04	8.509E-05	8.509E-05			
G	0.2	0.02	823.	0.	0.	21.4	7.7	125.7	1.720E-03	3.367E-03	1.720E-03			
G	1.3	28.54	823.	0.	0.	21.4	7.7	125.7	2.457E-04	4.809E-04	2.457E-04			
G	2.9	14.74	823.	0.	0.	21.4	7.7	70.2	2.053E-04	2.244E-04	2.053E-04			
G	4.8	0.73	823.	0.	0.	21.4	7.7	30.8	2.805E-04	1.347E-04	1.347E-04			

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1129 of 1411

RUN DATE: 01/09/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 13.7 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.4-21.1 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, 1984-1988, 1A met (w/ RT wind), RB Stack to EAB and LPZ

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

NNE SECTOR BOUNDARY DISTANCE = 823.0 METERS

LATERAL PLUME MEANDER/BUILDING WAKE CREDIT ALLOWED

AS A FUNCTION OF DOWNWIND DISTANCE.

MEANDER CREDIT IS FOR WINDSPEEDS LESS THAN 6 MPS.

BUILDING WAKE CREDIT ALLOWED: C= 0.5 A= 2584. D= 54.3

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.720E-03	1.141E-03	6.730E-04	4.551E-04	3.080E-04	2.457E-04	2.053E-04	1.630E-04	1.347E-04	1.193E-04
0.019	0.032	0.048	0.049	0.051	28.593	43.334	48.666	49.398	53.998
0.00043	0.00074	0.00108	0.00113	0.00115	0.65044	0.98579	1.10708	1.12373	1.22838
9.614E-05	8.509E-05	6.501E-05	6.402E-05	5.330E-05	4.401E-05	3.983E-05	3.601E-05	2.899E-05	2.054E-05
58.703	60.167	61.944	67.276	69.785	70.203	76.790	76.895	82.854	84.736
1.33540	1.36870	1.40913	1.53043	1.58751	1.59702	1.74686	1.74924	1.88480	1.92761
1.959E-05	1.232E-05	8.325E-06	6.417E-06	4.480E-06	2.091E-06	1.254E-06	8.476E-07	6.534E-07	
86.199	87.977	88.290	88.395	91.636	95.191	98.850	99.895	100.000	
1.96091	2.00134	2.00848	2.01085	2.08458	2.16545	2.24869	2.27247	2.27485	

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(3) =	0.985
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(4) =	1.106
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(5) =	1.334
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(6) =	1.529
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(7) =	1.745
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(8) =	1.883

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
10	1	-6.36563	-10.76747	-0.98872

Calculation No. PM-1055 Revision 0

Attachment J

Page 1130 of 1411

10	2	-8.31154	-11.25139	-1.18354
10	3	-8.49120	-20.77166	-5.26572
10	4	-8.72174	-25.46342	-7.31598
10	5	-9.24972	-26.05258	-7.58183
10	6	-9.65636	-29.00304	-8.94616
10	7	-10.13086	-31.78929	-10.26695
10	8	-10.44855	NUMXQ(K)= 8	
		6.749E-04	0.023	1.000
		4.998E-04	0.068	3.000
		4.308E-04	0.114	5.000
		3.485E-04	0.227	10.000
		3.059E-04	0.341	15.000
		2.779E-04	0.455	20.000
		2.575E-04	0.569	25.000
		2.407E-04	0.682	30.000
		2.254E-04	0.796	35.000
		2.126E-04	0.910	40.000
		1.905E-04	1.024	45.000
		1.512E-04	1.137	50.000
		1.157E-04	1.251	55.000
		9.012E-05	1.365	60.000
		7.099E-05	1.479	65.000
		5.557E-05	1.592	70.000
		4.338E-05	1.706	75.000
		3.358E-05	1.820	80.000
		2.691E-04	0.5	21.98

ANNUAL AVERAGE = 2.47E-06

K= 10 FIVEXQ(K)= 2.691E-04 FIVEPR(K)=21.979

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 01/09/03

Page 1131 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Ground Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, 1984-1988, 1A met (w/ RT wind), RB Stack to EAB and LPZ

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 13.7 meters

DELTA-T HEIGHTS: 10.4-21.1 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE NE SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 10.0 METERS												CA=1292.SQ.METERS		
A	1.4	2.24	823.	0.	0.	157.1	310.1	157.1	4.518E-06	4.480E-06	4.480E-06			
A	3.1	1.31	823.	0.	0.	157.1	310.1	157.1	2.108E-06	2.091E-06	2.091E-06			
A	5.2	2.47	823.	0.	0.	157.1	310.1	157.1	1.265E-06	1.254E-06	1.254E-06			
A	7.6	0.08	823.	0.	0.	157.1	310.1	157.1	8.548E-07	8.476E-07	8.476E-07			
C	0.2	0.00	823.	0.	0.	89.7	51.2	89.7	3.356E-04	3.080E-04	3.080E-04			
C	1.4	0.39	823.	0.	0.	89.7	51.2	89.7	4.795E-05	4.401E-05	4.401E-05			
C	3.1	1.24	823.	0.	0.	89.7	51.2	89.7	2.238E-05	2.054E-05	2.054E-05			
C	5.2	3.24	823.	0.	0.	89.7	51.2	89.7	1.343E-05	1.232E-05	1.232E-05			
C	7.6	0.39	823.	0.	0.	89.7	51.2	89.7	9.071E-06	8.325E-06	8.325E-06			
D	0.2	0.00	823.	0.	0.	63.2	27.1	124.7	4.551E-04	7.248E-04	4.551E-04			
D	1.4	1.93	823.	0.	0.	63.2	27.1	124.7	6.501E-05	1.035E-04	6.501E-05			
D	3.1	5.41	823.	0.	0.	63.2	27.1	95.0	3.983E-05	4.832E-05	3.983E-05			
D	5.2	5.56	823.	0.	0.	63.2	27.1	69.3	3.278E-05	2.899E-05	2.899E-05			
D	7.6	1.08	823.	0.	0.	63.2	27.1	63.2	2.429E-05	1.959E-05	1.959E-05			
E	0.2	0.02	823.	0.	0.	44.9	18.7	132.5	6.730E-04	1.332E-03	6.730E-04			
E	1.3	4.71	823.	0.	0.	44.9	18.7	132.5	9.614E-05	1.903E-04	9.614E-05			
E	2.9	7.03	823.	0.	0.	44.9	18.7	92.8	6.402E-05	8.883E-05	6.402E-05			
E	4.8	2.32	823.	0.	0.	44.9	18.7	56.2	6.350E-05	5.330E-05	5.330E-05			
E	7.1	0.08	823.	0.	0.	44.9	18.7	44.9	5.365E-05	3.601E-05	3.601E-05			
F	0.2	0.01	823.	0.	0.	31.0	12.0	121.7	1.141E-03	2.127E-03	1.141E-03			
F	1.3	5.79	823.	0.	0.	31.0	12.0	121.7	1.630E-04	3.039E-04	1.630E-04			
F	2.9	4.09	823.	0.	0.	31.0	12.0	77.6	1.193E-04	1.418E-04	1.193E-04			
F	4.8	0.31	823.	0.	0.	31.0	12.0	41.1	1.351E-04	8.509E-05	8.509E-05			
G	0.2	0.02	823.	0.	0.	21.4	7.7	125.7	1.720E-03	3.367E-03	1.720E-03			
G	1.3	34.29	823.	0.	0.	21.4	7.7	125.7	2.457E-04	4.809E-04	2.457E-04			
G	2.9	15.68	823.	0.	0.	21.4	7.7	70.2	2.053E-04	2.244E-04	2.053E-04			
G	4.8	0.23	823.	0.	0.	21.4	7.7	30.8	2.805E-04	1.347E-04	1.347E-04			
G	21.0	0.08	823.	0.	0.	21.4	7.7	21.4	9.182E-05	3.061E-05	3.061E-05			

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1132 of 1411

RUN DATE: 01/09/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 13.7 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.4-21.1 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, 1984-1988, 1A met (w/ RT wind), RB Stack to EAB and LPZ

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

NE SECTOR BOUNDARY DISTANCE = 823.0 METERS

LATERAL PLUME MEANDER/BUILDING WAKE CREDIT ALLOWED

AS A FUNCTION OF DOWNWIND DISTANCE.

MEANDER CREDIT IS FOR WINDSPEEDS LESS THAN 6 MPS.

BUILDING WAKE CREDIT ALLOWED: C= 0.5 A= 2584. D= 54.3

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.720E-03	1.141E-03	6.730E-04	4.551E-04	3.080E-04	2.457E-04	2.053E-04	1.630E-04	1.347E-04	1.193E-04
0.022	0.037	0.053	0.055	0.056	34.349	50.028	55.821	56.052	60.146
0.00069	0.00115	0.00162	0.00168	0.00171	1.05770	1.54050	1.71888	1.72601	1.85207
9.614E-05	8.509E-05	6.501E-05	6.402E-05	5.330E-05	4.401E-05	3.983E-05	3.601E-05	3.061E-05	2.899E-05
64.857	65.166	67.097	74.126	76.443	76.829	82.236	82.313	82.390	87.951
1.99715	2.00666	2.06612	2.28255	2.35390	2.36579	2.53227	2.53465	2.53703	2.70827
2.054E-05	1.959E-05	1.232E-05	8.325E-06	4.480E-06	2.091E-06	1.254E-06	8.476E-07		
89.187	90.268	93.512	93.898	96.138	97.451	99.923	100.000		
2.74633	2.77962	2.87951	2.89140	2.96038	3.00081	3.07692	3.07929		

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(3)=	1.539
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(4)=	1.717
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(5)=	2.280
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(6)=	2.530
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(7)=	2.706

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
11	1	-6.36563	-10.50992	-0.95347
11	2	-8.31154	-11.15452	-1.23304

Calculation No. PM-1055 Revision 0

Attachment J

Page 1133 of 1411

11	3	-8.49120	-19.83363	-5.25122
11	4	-8.72174	-25.62290	-7.98710
11	5	-9.65636	-31.14607	-10.75001
11	6	-10.13086	-31.57259	-10.96819
11	7	-10.44855	NUMXQ(K) = 7	
		7.141E-04	0.031	1.000
		5.310E-04	0.092	3.000
		4.585E-04	0.154	5.000
		3.716E-04	0.308	10.000
		3.264E-04	0.462	15.000
		2.966E-04	0.616	20.000
		2.748E-04	0.770	25.000
		2.578E-04	0.924	30.000
		2.435E-04	1.078	35.000
		2.287E-04	1.232	40.000
		2.161E-04	1.386	45.000
		2.053E-04	1.540	50.000
		1.682E-04	1.694	55.000
		1.290E-04	1.848	60.000
		9.919E-05	2.002	65.000
		7.757E-05	2.156	70.000
		6.070E-05	2.309	75.000
		4.521E-05	2.463	80.000
		3.408E-05	2.617	85.000
		3.180E-04	0.5	16.24

ANNUAL AVERAGE = 3.80E-06

K= 11 FIVEXQ(K)= 3.180E-04 FIVEPR(K)=16.237

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1134 of 1411

RUN DATE: 01/09/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 13.7 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.4-21.1 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, 1984-1988, 1A met (w/ RT wind), RB Stack to EAB and LPZ

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE ENE SECTOR.

STABILITY CLASS	WINDSPEED METER/SEC AT 10.0 METERS	FREQUENCY PERCENT	DISTANCE METERS	TERRAIN METERS	HT EFF METERS	PLUME HT METERS	SIGMA-Y METERS	SIGMA-Z METERS	MEANDER-SY METERS	** CHI/Q VALUES (SEC/CUBIC METER)		
										MEANDER	BLDG WAKE	USED
										CA=1292.SQ.METERS		
A	1.4	2.00	823.	0.	0.	157.1	310.1	157.1	4.518E-06	4.480E-06	4.480E-06	
A	3.1	0.79	823.	0.	0.	157.1	310.1	157.1	2.108E-06	2.091E-06	2.091E-06	
A	5.2	1.88	823.	0.	0.	157.1	310.1	157.1	1.265E-06	1.254E-06	1.254E-06	
A	7.6	0.12	823.	0.	0.	157.1	310.1	157.1	8.548E-07	8.476E-07	8.476E-07	
C	0.2	0.00	823.	0.	0.	89.7	51.2	89.7	3.356E-04	3.080E-04	3.080E-04	
C	1.4	0.61	823.	0.	0.	89.7	51.2	89.7	4.795E-05	4.401E-05	4.401E-05	
C	3.1	0.91	823.	0.	0.	89.7	51.2	89.7	2.238E-05	2.054E-05	2.054E-05	
C	5.2	1.94	823.	0.	0.	89.7	51.2	89.7	1.343E-05	1.232E-05	1.232E-05	
C	7.6	0.24	823.	0.	0.	89.7	51.2	89.7	9.071E-06	8.325E-06	8.325E-06	
C	9.9	0.06	823.	0.	0.	89.7	51.2	89.7	6.992E-06	6.417E-06	6.417E-06	
D	0.2	0.00	823.	0.	0.	63.2	27.1	124.7	4.551E-04	7.248E-04	4.551E-04	
D	1.4	1.69	823.	0.	0.	63.2	27.1	124.7	6.501E-05	1.035E-04	6.501E-05	
D	3.1	5.02	823.	0.	0.	63.2	27.1	95.0	3.983E-05	4.832E-05	3.983E-05	
D	5.2	5.14	823.	0.	0.	63.2	27.1	69.3	3.278E-05	2.899E-05	2.899E-05	
D	7.6	0.67	823.	0.	0.	63.2	27.1	63.2	2.429E-05	1.959E-05	1.959E-05	
E	0.2	0.01	823.	0.	0.	44.9	18.7	132.5	6.730E-04	1.332E-03	6.730E-04	
E	1.3	2.96	823.	0.	0.	44.9	18.7	132.5	9.614E-05	1.903E-04	9.614E-05	
E	2.9	5.63	823.	0.	0.	44.9	18.7	92.8	6.402E-05	8.883E-05	6.402E-05	
E	4.8	1.27	823.	0.	0.	44.9	18.7	56.2	6.350E-05	5.330E-05	5.330E-05	
E	7.1	0.06	823.	0.	0.	44.9	18.7	44.9	5.365E-05	3.601E-05	3.601E-05	
F	0.2	0.01	823.	0.	0.	31.0	12.0	121.7	1.141E-03	2.127E-03	1.141E-03	
F	1.3	5.32	823.	0.	0.	31.0	12.0	121.7	1.630E-04	3.039E-04	1.630E-04	
F	2.9	4.96	823.	0.	0.	31.0	12.0	77.6	1.193E-04	1.418E-04	1.193E-04	
F	4.8	0.67	823.	0.	0.	31.0	12.0	41.1	1.351E-04	8.509E-05	8.509E-05	
G	0.2	0.02	823.	0.	0.	21.4	7.7	125.7	1.720E-03	3.367E-03	1.720E-03	
G	1.3	35.94	823.	0.	0.	21.4	7.7	125.7	2.457E-04	4.809E-04	2.457E-04	
G	2.9	21.36	823.	0.	0.	21.4	7.7	70.2	2.053E-04	2.244E-04	2.053E-04	
G	4.8	0.42	823.	0.	0.	21.4	7.7	30.8	2.805E-04	1.347E-04	1.347E-04	
G	7.1	0.06	823.	0.	0.	21.4	7.7	21.4	2.730E-04	9.099E-05	9.099E-05	
G	21.0	0.24	823.	0.	0.	21.4	7.7	21.4	9.182E-05	3.061E-05	3.061E-05	

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1135 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Ground Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, 1984-1988, 1A met. (w/ RT wind), RB Stack to EAB and LPZ

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 13.7 meters

DELTA-T HEIGHTS: 10.4-21.1 meters

SITE EXCLUSION BOUNDARY CALCULATIONS:

ENE SECTOR BOUNDARY DISTANCE = 823.0 METERS

LATERAL PLUME MEANDER/BUILDING WAKE CREDIT ALLOWED

AS A FUNCTION OF DOWNWIND DISTANCE.

MEANDER CREDIT IS FOR WINDSPEEDS LESS THAN 6 MPS.

BUILDING WAKE CREDIT ALLOWED: C= 0.5 A= 2584. D= 54.3

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.720E-03	1.141E-03	6.730E-04	4.551E-04	3.080E-04	2.457E-04	2.053E-04	1.630E-04	1.347E-04	1.193E-04
0.024	0.037	0.047	0.049	0.050	35.989	57.346	62.670	63.094	68.055
0.00092	0.00146	0.00184	0.00191	0.00197	1.41471	2.25427	2.46356	2.48021	2.67523
9.614E-05	9.099E-05	8.509E-05	6.501E-05	6.402E-05	5.330E-05	4.401E-05	3.983E-05	3.601E-05	3.061E-05
71.019	71.080	71.745	73.439	79.066	80.337	80.942	85.963	86.024	86.266
2.79177	2.79415	2.82031	2.88691	3.10809	3.15804	3.18182	3.37923	3.38160	3.39112
2.899E-05	2.054E-05	1.959E-05	1.232E-05	8.325E-06	6.417E-06	4.480E-06	2.091E-06	1.254E-06	8.476E-07
91.409	92.316	92.982	94.918	95.160	95.220	97.217	98.003	99.879	100.000
3.59328	3.62895	3.65511	3.73122	3.74073	3.74311	3.82160	3.85252	3.92625	3.93100

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(4) =	2.461
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(5) =	2.673
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(6) =	3.105
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(7) =	3.590
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(8) =	3.728

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
12	1	-6.36563	-10.35528	-0.93167
12	2	-8.31154	-10.39308	-0.94890

Calculation No. PM-1055 Revision 0

Attachment J

Page 1136 of 1411

12 3 -8.49120 -20.77271 -6.12761
 12 4 -8.72174 -26.07578 -8.82408
 12 5 -9.03426 -27.32174 -9.46923
 12 6 -9.65636 -32.32870 -12.15313
 12 7 -10.44855 -99.97153 -49.72472
 12 8 -11.30416 NUMXQ(K) = 8

7.268E-04	0.039	1.000
5.411E-04	0.118	3.000
4.674E-04	0.197	5.000
3.788E-04	0.393	10.000
3.326E-04	0.590	15.000
3.021E-04	0.786	20.000
2.798E-04	0.983	25.000
2.624E-04	1.179	30.000
2.482E-04	1.376	35.000
2.361E-04	1.572	40.000
2.257E-04	1.769	45.000
2.167E-04	1.966	50.000
2.087E-04	2.162	55.000
1.826E-04	2.359	60.000
1.420E-04	2.555	65.000
1.062E-04	2.752	70.000
7.984E-05	2.948	75.000
6.009E-05	3.145	80.000
4.323E-05	3.341	85.000
3.159E-05	3.538	90.000
3.509E-04	0.5	12.72

ANNUAL AVERAGE = 5.07E-06

K= 12 FIVEXQ(K) = 3.509E-04 FIVEPR(K) = 12.719

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 01/09/03

Page 1137 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Ground Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, 1984-1988, 1A met (w/ RT wind), RB Stack to EAB and LPZ

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 13.7 meters

DELTA-T HEIGHTS: 10.4-21.1 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE E SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 10.0 METERS												CA=1292.SQ.METERS		
A	1.4	1.22	823.	0.	0.				157.1	310.1	157.1	4.518E-06	4.480E-06	4.480E-06
A	3.1	0.92	823.	0.	0.				157.1	310.1	157.1	2.108E-06	2.091E-06	2.091E-06
A	5.2	1.75	823.	0.	0.				157.1	310.1	157.1	1.265E-06	1.254E-06	1.254E-06
A	7.6	1.02	823.	0.	0.				157.1	310.1	157.1	8.548E-07	8.476E-07	8.476E-07
C	0.2	0.00	823.	0.	0.				89.7	51.2	89.7	3.356E-04	3.080E-04	3.080E-04
C	1.4	0.33	823.	0.	0.				89.7	51.2	89.7	4.795E-05	4.401E-05	4.401E-05
C	3.1	0.76	823.	0.	0.				89.7	51.2	89.7	2.238E-05	2.054E-05	2.054E-05
C	5.2	2.01	823.	0.	0.				89.7	51.2	89.7	1.343E-05	1.232E-05	1.232E-05
C	7.6	0.82	823.	0.	0.				89.7	51.2	89.7	9.071E-06	8.325E-06	8.325E-06
C	9.9	0.03	823.	0.	0.				89.7	51.2	89.7	6.992E-06	6.417E-06	6.417E-06
D	0.2	0.00	823.	0.	0.				63.2	27.1	124.7	4.551E-04	7.248E-04	4.551E-04
D	1.4	1.05	823.	0.	0.				63.2	27.1	124.7	6.501E-05	1.035E-04	6.501E-05
D	3.1	3.33	823.	0.	0.				63.2	27.1	95.0	3.983E-05	4.832E-05	3.983E-05
D	5.2	6.36	823.	0.	0.				63.2	27.1	69.3	3.278E-05	2.899E-05	2.899E-05
D	7.6	2.93	823.	0.	0.				63.2	27.1	63.2	2.429E-05	1.959E-05	1.959E-05
D	9.9	0.20	823.	0.	0.				63.2	27.1	63.2	1.872E-05	1.510E-05	1.510E-05
D	22.7	0.03	823.	0.	0.				63.2	27.1	63.2	8.169E-06	6.589E-06	6.589E-06
E	0.2	0.01	823.	0.	0.				44.9	18.7	132.5	6.730E-04	1.332E-03	6.730E-04
E	1.3	2.14	823.	0.	0.				44.9	18.7	132.5	9.614E-05	1.903E-04	9.614E-05
E	2.9	4.48	823.	0.	0.				44.9	18.7	92.8	6.402E-05	8.883E-05	6.402E-05
E	4.8	2.41	823.	0.	0.				44.9	18.7	56.2	6.350E-05	5.330E-05	5.330E-05
E	7.1	0.23	823.	0.	0.				44.9	18.7	44.9	5.365E-05	3.601E-05	3.601E-05
F	0.2	0.01	823.	0.	0.				31.0	12.0	121.7	1.141E-03	2.127E-03	1.141E-03
F	1.3	3.99	823.	0.	0.				31.0	12.0	121.7	1.630E-04	3.039E-04	1.630E-04
F	2.9	4.22	823.	0.	0.				31.0	12.0	77.6	1.193E-04	1.418E-04	1.193E-04
F	4.8	0.69	823.	0.	0.				31.0	12.0	41.1	1.351E-04	8.509E-05	8.509E-05
F	7.1	0.03	823.	0.	0.				31.0	12.0	31.0	1.210E-04	5.750E-05	5.750E-05
F	9.2	0.03	823.	0.	0.				31.0	12.0	31.0	9.328E-05	4.432E-05	4.432E-05
F	21.0	0.10	823.	0.	0.				31.0	12.0	31.0	4.071E-05	1.934E-05	1.934E-05
G	0.2	0.02	823.	0.	0.				21.4	7.7	125.7	1.720E-03	3.367E-03	1.720E-03
G	1.3	30.43	823.	0.	0.				21.4	7.7	125.7	2.457E-04	4.809E-04	2.457E-04
G	2.9	26.18	823.	0.	0.				21.4	7.7	70.2	2.053E-04	2.244E-04	2.053E-04
G	4.8	1.98	823.	0.	0.				21.4	7.7	30.8	2.805E-04	1.347E-04	1.347E-04

G 21.0 0.26 823.

0.

0.

21.4 7.7 21.4

9.182E-05 3.061E-05 3.061E-05

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1139 of 1411

RUN DATE: 01/09/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 13.7 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.4-21.1 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, 1984-1988, 1A met (w/ RT wind), RB Stack to EAB and LPZ

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

E SECTOR BOUNDARY DISTANCE = 823.0 METERS

LATERAL PLUME MEANDER/BUILDING WAKE CREDIT ALLOWED

AS A FUNCTION OF DOWNWIND DISTANCE.

MEANDER CREDIT IS FOR WINDSPEEDS LESS THAN 6 MPS.

BUILDING WAKE CREDIT ALLOWED: C= 0.5 A= 2584. D= 54.3

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.720E-03	1.141E-03	6.730E-04	4.551E-04	3.080E-04	2.457E-04	2.053E-04	1.630E-04	1.347E-04	1.193E-04
0.020	0.030	0.037	0.038	0.039	30.469	56.646	60.635	62.614	66.834
0.00144	0.00218	0.00268	0.00276	0.00282	2.19803	4.08644	4.37422	4.51692	4.82135
9.614E-05	8.509E-05	6.501E-05	6.402E-05	5.750E-05	5.330E-05	4.432E-05	4.401E-05	3.983E-05	3.601E-05
68.977	69.669	70.724	75.208	75.241	77.647	77.680	78.010	81.340	81.571
4.97594	5.02589	5.10200	5.42545	5.42783	5.60145	5.60383	5.62761	5.86782	5.88447
3.061E-05	2.899E-05	2.054E-05	1.959E-05	1.934E-05	1.510E-05	1.232E-05	8.325E-06	6.589E-06	6.417E-06
81.834	88.197	88.955	91.890	91.989	92.186	94.198	95.022	95.055	95.088
5.90350	6.36252	6.41722	6.62889	6.63603	6.65030	6.79538	6.85484	6.85722	6.85959
4.480E-06	2.091E-06	1.254E-06	8.476E-07						
96.308	97.231	98.978	100.000						
6.94759	7.01419	7.14024	7.21397						

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(3)=	4.818
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(4)=	5.422
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(5)=	6.359
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(6)=	6.625

Calculation No. PM-1055 Revision 0

Attachment J

Page 1140 of 1411

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
13	1	-6.36563	-10.00668	-0.87040
13	2	-8.49120	-20.56132	-6.93235
13	3	-9.03426	-27.01857	-10.81573
13	4	-9.65636	-25.56650	-9.91117
13	5	-10.44855	-38.88255	-18.64103
13	6	-10.84059	NUMXQ(K)= 6	
		7.221E-04	0.072	1.000
		5.405E-04	0.216	3.000
		4.677E-04	0.361	5.000
		3.794E-04	0.721	10.000
		3.330E-04	1.082	15.000
		3.023E-04	1.443	20.000
		2.797E-04	1.803	25.000
		2.620E-04	2.164	30.000
		2.475E-04	2.525	35.000
		2.354E-04	2.886	40.000
		2.249E-04	3.246	45.000
		2.158E-04	3.607	50.000
		2.077E-04	3.968	55.000
		1.703E-04	4.328	60.000
		1.308E-04	4.689	65.000
		9.361E-05	5.050	70.000
		6.497E-05	5.410	75.000
		4.724E-05	5.771	80.000
		3.492E-05	6.132	85.000
		2.390E-05	6.493	90.000
		4.246E-04	0.5	6.93

ANNUAL AVERAGE = 8.38E-06

K= 13 FIVEXQ(K)= 4.246E-04 FIVEPR(K)= 6.931

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 01/09/03

Page 1141 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Ground Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, 1984-1988, 1A met (w/ RT wind), RB Stack to EAB and LPZ

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 13.7 meters

DELTA-T HEIGHTS: 10.4 21.1 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE ESE SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 10.0 METERS												CA=1292.SQ.METERS		
A	1.4	0.93	823.	0.	0.	0.	157.1	310.1	157.1	4.518E-06	4.480E-06	4.480E-06		
A	3.1	0.75	823.	0.	0.	0.	157.1	310.1	157.1	2.108E-06	2.091E-06	2.091E-06		
A	5.2	1.54	823.	0.	0.	0.	157.1	310.1	157.1	1.265E-06	1.254E-06	1.254E-06		
A	7.6	2.10	823.	0.	0.	0.	157.1	310.1	157.1	8.548E-07	8.476E-07	8.476E-07		
A	9.9	0.55	823.	0.	0.	0.	157.1	310.1	157.1	6.589E-07	6.534E-07	6.534E-07		
A	22.7	0.11	823.	0.	0.	0.	157.1	310.1	157.1	2.875E-07	2.851E-07	2.851E-07		
C	0.2	0.00	823.	0.	0.	0.	89.7	51.2	89.7	3.356E-04	3.080E-04	3.080E-04		
C	1.4	0.29	823.	0.	0.	0.	89.7	51.2	89.7	4.795E-05	4.401E-05	4.401E-05		
C	3.1	0.53	823.	0.	0.	0.	89.7	51.2	89.7	2.238E-05	2.054E-05	2.054E-05		
C	5.2	2.10	823.	0.	0.	0.	89.7	51.2	89.7	1.343E-05	1.232E-05	1.232E-05		
C	7.6	2.96	823.	0.	0.	0.	89.7	51.2	89.7	9.071E-06	8.325E-06	8.325E-06		
C	9.9	1.30	823.	0.	0.	0.	89.7	51.2	89.7	6.992E-06	6.417E-06	6.417E-06		
C	22.7	0.13	823.	0.	0.	0.	89.7	51.2	89.7	3.051E-06	2.800E-06	2.800E-06		
D	0.2	0.00	823.	0.	0.	0.	63.2	27.1	124.7	4.551E-04	7.248E-04	4.551E-04		
D	1.4	0.88	823.	0.	0.	0.	63.2	27.1	124.7	6.501E-05	1.035E-04	6.501E-05		
D	3.1	2.73	823.	0.	0.	0.	63.2	27.1	95.0	3.983E-05	4.832E-05	3.983E-05		
D	5.2	7.92	823.	0.	0.	0.	63.2	27.1	69.3	3.278E-05	2.899E-05	2.899E-05		
D	7.6	12.37	823.	0.	0.	0.	63.2	27.1	63.2	2.429E-05	1.959E-05	1.959E-05		
D	9.9	2.71	823.	0.	0.	0.	63.2	27.1	63.2	1.872E-05	1.510E-05	1.510E-05		
D	22.7	0.37	823.	0.	0.	0.	63.2	27.1	63.2	8.169E-06	6.589E-06	6.589E-06		
E	0.2	0.00	823.	0.	0.	0.	44.9	18.7	132.5	6.730E-04	1.332E-03	6.730E-04		
E	1.3	1.37	823.	0.	0.	0.	44.9	18.7	132.5	9.614E-05	1.903E-04	9.614E-05		
E	2.9	3.33	823.	0.	0.	0.	44.9	18.7	92.8	6.402E-05	8.883E-05	6.402E-05		
E	4.8	6.75	823.	0.	0.	0.	44.9	18.7	56.2	6.350E-05	5.330E-05	5.330E-05		
E	7.1	2.91	823.	0.	0.	0.	44.9	18.7	44.9	5.365E-05	3.601E-05	3.601E-05		
E	9.2	0.29	823.	0.	0.	0.	44.9	18.7	44.9	4.135E-05	2.776E-05	2.776E-05		
E	21.0	0.13	823.	0.	0.	0.	44.9	18.7	44.9	1.804E-05	1.211E-05	1.211E-05		
F	0.2	0.01	823.	0.	0.	0.	31.0	12.0	121.7	1.141E-03	2.127E-03	1.141E-03		
F	1.3	2.18	823.	0.	0.	0.	31.0	12.0	121.7	1.630E-04	3.039E-04	1.630E-04		
F	2.9	3.75	823.	0.	0.	0.	31.0	12.0	77.6	1.193E-04	1.418E-04	1.193E-04		
F	4.8	3.42	823.	0.	0.	0.	31.0	12.0	41.1	1.351E-04	8.509E-05	8.509E-05		
F	7.1	0.29	823.	0.	0.	0.	31.0	12.0	31.0	1.210E-04	5.750E-05	5.750E-05		
G	0.2	0.01	823.	0.	0.	0.	21.4	7.7	125.7	1.720E-03	3.367E-03	1.720E-03		

Calculation No. PM-1055 Revision 0

G	1.3	17.62	823.	0.	0.
G	2.9	13.21	823.	0.	0.
G	4.8	4.15	823.	0.	0.
G	7.1	0.11	823.	0.	0.
G	21.0	0.20	823.	0.	0.

Attachment J

21.4	7.7	125.7
21.4	7.7	70.2
21.4	7.7	30.8
21.4	7.7	21.4
21.4	7.7	21.4

Page 1142 of 1411

2.457E-04	4.809E-04	2.457E-04
2.053E-04	2.244E-04	2.053E-04
2.805E-04	1.347E-04	1.347E-04
2.730E-04	9.099E-05	9.099E-05
9.182E-05	3.061E-05	3.061E-05

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1143 of 1411

RUN DATE: 01/09/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 13.7 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.4-21.1 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, 1984-1988, 1A met (w/ RT wind), RB Stack to EAB and LPZ

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

ESE SECTOR BOUNDARY DISTANCE = 823.0 METERS

LATERAL PLUME MEANDER/BUILDING WAKE CREDIT ALLOWED

AS A FUNCTION OF DOWNWIND DISTANCE.

MEANDER CREDIT IS FOR WINDSPEEDS LESS THAN 6 MPS.

BUILDING WAKE CREDIT ALLOWED: C= 0.5 A= 2584. D= 54.3

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.720E-03	1.141E-03	6.730E-04	4.551E-04	3.080E-04	2.457E-04	2.053E-04	1.630E-04	1.347E-04	1.193E-04
0.012	0.017	0.022	0.023	0.023	17.645	30.857	33.040	37.186	40.936
0.00124	0.00185	0.00233	0.00243	0.00251	1.90281	3.32744	3.56289	4.01002	4.41434
9.614E-05	9.099E-05	8.509E-05	6.501E-05	6.402E-05	5.750E-05	5.330E-05	4.401E-05	3.983E-05	3.601E-05
42.303	42.414	45.832	46.714	50.045	50.331	57.080	57.367	60.102	63.013
4.56180	4.57369	4.94233	5.03747	5.39660	5.42752	6.15529	6.18621	6.48113	6.79507
3.061E-05	2.899E-05	2.776E-05	2.054E-05	1.959E-05	1.510E-05	1.232E-05	1.211E-05	8.325E-06	6.589E-06
63.212	71.130	71.416	71.946	84.319	87.031	89.127	89.259	92.214	92.589
6.81647	7.67030	7.70122	7.75830	9.09255	9.38509	9.61103	9.62530	9.94400	9.98443
6.417E-06	4.480E-06	2.800E-06	2.091E-06	1.254E-06	8.476E-07	6.534E-07	2.851E-07		
93.891	94.817	94.949	95.699	97.243	99.338	99.890	100.000		
10.12475	10.22464	10.23891	10.31978	10.48626	10.71220	10.77166	10.78356		

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (3)= 4.411
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (4)= 6.151
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (5)= 9.089
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (6)= 9.382

Calculation No. PM-1055 Revision 0

Attachment J

Page 1144 of 1411

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
14	1	-6.36563	-10.12964	-0.89283
14	2	-8.49120	-16.14328	-4.16980
14	3	-9.03426	-17.47394	-4.95030
14	4	-9.83966	-17.30044	-4.83780
14	5	-10.84059	-30.49912	-14.72232
14	6	-11.10087	NUMXQ(K) = 6	
		6.171E-04	0.108	1.000
		4.537E-04	0.324	3.000
		3.886E-04	0.539	5.000
		3.104E-04	1.078	10.000
		2.696E-04	1.618	15.000
		2.427E-04	2.157	20.000
		2.230E-04	2.696	25.000
		2.076E-04	3.235	30.000
		1.617E-04	3.774	35.000
		1.248E-04	4.313	40.000
		9.534E-05	4.853	45.000
		7.395E-05	5.392	50.000
		5.848E-05	5.931	55.000
		4.713E-05	6.470	60.000
		3.858E-05	7.009	65.000
		3.194E-05	7.548	70.000
		2.672E-05	8.088	75.000
		2.254E-05	8.627	80.000
		1.834E-05	9.166	85.000
		3.978E-04	0.5	4.64

ANNUAL AVERAGE = 7.95E-06

K= 14 FIVEXQ(K) = 3.978E-04 FIVEPR(K) = 4.637

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 01/09/03

Page 1145 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Ground Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, 1984-1988, 1A met (w/ RT wind), RB Stack to EAB and LPZ

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 13.7 meters

DELTA-T HEIGHTS: 10.4 21.1 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE SE SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 10.0 METERS												CA=1292.SQ.METERS		
A	1.4	0.47	823.	0.	0.	157.1	310.1	157.1	4.518E-06	4.480E-06	4.480E-06			
A	3.1	2.38	823.	0.	0.	157.1	310.1	157.1	2.108E-06	2.091E-06	2.091E-06			
A	5.2	5.09	823.	0.	0.	157.1	310.1	157.1	1.265E-06	1.254E-06	1.254E-06			
A	7.6	5.12	823.	0.	0.	157.1	310.1	157.1	8.548E-07	8.476E-07	8.476E-07			
A	9.9	2.15	823.	0.	0.	157.1	310.1	157.1	6.589E-07	6.534E-07	6.534E-07			
A	22.7	0.58	823.	0.	0.	157.1	310.1	157.1	2.875E-07	2.851E-07	2.851E-07			
C	0.2	0.00	823.	0.	0.	89.7	51.2	89.7	3.356E-04	3.080E-04	3.080E-04			
C	1.4	0.35	823.	0.	0.	89.7	51.2	89.7	4.795E-05	4.401E-05	4.401E-05			
C	3.1	1.32	823.	0.	0.	89.7	51.2	89.7	2.238E-05	2.054E-05	2.054E-05			
C	5.2	2.18	823.	0.	0.	89.7	51.2	89.7	1.343E-05	1.232E-05	1.232E-05			
C	7.6	3.17	823.	0.	0.	89.7	51.2	89.7	9.071E-06	8.325E-06	8.325E-06			
C	9.9	1.21	823.	0.	0.	89.7	51.2	89.7	6.992E-06	6.417E-06	6.417E-06			
C	22.7	0.45	823.	0.	0.	89.7	51.2	89.7	3.051E-06	2.800E-06	2.800E-06			
D	0.2	0.00	823.	0.	0.	63.2	27.1	124.7	4.551E-04	7.248E-04	4.551E-04			
D	1.4	0.89	823.	0.	0.	63.2	27.1	124.7	6.501E-05	1.035E-04	6.501E-05			
D	3.1	3.20	823.	0.	0.	63.2	27.1	95.0	3.983E-05	4.832E-05	3.983E-05			
D	5.2	7.15	823.	0.	0.	63.2	27.1	69.3	3.278E-05	2.899E-05	2.899E-05			
D	7.6	8.15	823.	0.	0.	63.2	27.1	63.2	2.429E-05	1.959E-05	1.959E-05			
D	9.9	3.95	823.	0.	0.	63.2	27.1	63.2	1.872E-05	1.510E-05	1.510E-05			
D	22.7	0.98	823.	0.	0.	63.2	27.1	63.2	8.169E-06	6.589E-06	6.589E-06			
E	0.2	0.00	823.	0.	0.	44.9	18.7	132.5	6.730E-04	1.332E-03	6.730E-04			
E	1.3	1.20	823.	0.	0.	44.9	18.7	132.5	9.614E-05	1.903E-04	9.614E-05			
E	2.9	3.69	823.	0.	0.	44.9	18.7	92.8	6.402E-05	8.883E-05	6.402E-05			
E	4.8	5.59	823.	0.	0.	44.9	18.7	56.2	6.350E-05	5.330E-05	5.330E-05			
E	7.1	3.17	823.	0.	0.	44.9	18.7	44.9	5.365E-05	3.601E-05	3.601E-05			
E	9.2	0.64	823.	0.	0.	44.9	18.7	44.9	4.135E-05	2.776E-05	2.776E-05			
E	21.0	0.04	823.	0.	0.	44.9	18.7	44.9	1.804E-05	1.211E-05	1.211E-05			
F	0.2	0.01	823.	0.	0.	31.0	12.0	121.7	1.141E-03	2.127E-03	1.141E-03			
F	1.3	2.53	823.	0.	0.	31.0	12.0	121.7	1.630E-04	3.039E-04	1.630E-04			
F	2.9	3.19	823.	0.	0.	31.0	12.0	77.6	1.193E-04	1.418E-04	1.193E-04			
F	4.8	3.33	823.	0.	0.	31.0	12.0	41.1	1.351E-04	8.509E-05	8.509E-05			
F	7.1	0.35	823.	0.	0.	31.0	12.0	31.0	1.210E-04	5.750E-05	5.750E-05			
F	9.2	0.01	823.	0.	0.	31.0	12.0	31.0	9.328E-05	4.432E-05	4.432E-05			
F	21.0	0.03	823.	0.	0.	31.0	12.0	31.0	4.071E-05	1.934E-05	1.934E-05			

G	0.2	0.01	823.	0.	0.	21.4	7.7	125.7	1.720E-03	3.367E-03	1.720E-03
G	1.3	13.37	823.	0.	0.	21.4	7.7	125.7	2.457E-04	4.809E-04	2.457E-04
G	2.9	10.70	823.	0.	0.	21.4	7.7	70.2	2.053E-04	2.244E-04	2.053E-04
G	4.8	3.13	823.	0.	0.	21.4	7.7	30.8	2.805E-04	1.347E-04	1.347E-04
G	7.1	0.16	823.	0.	0.	21.4	7.7	21.4	2.730E-04	9.099E-05	9.099E-05
G	21.0	0.04	823.	0.	0.	21.4	7.7	21.4	9.182E-05	3.061E-05	3.061E-05

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 1147 of 1411**

RUN DATE: 01/09/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 13.7 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.4-21.1 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, 1984-1988, 1A met (w/ RT wind), RB Stack to EAB and LPZ

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

SE SECTOR BOUNDARY DISTANCE = 823.0 METERS

LATERAL PLUME MEANDER/BUILDING WAKE CREDIT ALLOWED

AS A FUNCTION OF DOWNWIND DISTANCE.

MEANDER CREDIT IS FOR WINDSPEEDS LESS THAN 6 MPS.

BUILDING WAKE CREDIT ALLOWED: C= 0.5 A= 2584. D= 54.3

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.720E-03	1.141E-03	6.730E-04	4.551E-04	3.080E-04	2.457E-04	2.053E-04	1.630E-04	1.347E-04	1.193E-04
0.009	0.015	0.019	0.020	0.021	13.387	24.091	26.621	29.750	32.938
0.00142	0.00248	0.00311	0.00326	0.00341	2.17722	3.91817	4.32963	4.83859	5.35707
9.614E-05	9.099E-05	8.509E-05	6.501E-05	6.402E-05	5.750E-05	5.330E-05	4.432E-05	4.401E-05	3.983E-05
34.137	34.298	37.632	38.524	42.209	42.560	48.146	48.161	48.512	51.714
5.55210	5.57826	6.12052	6.26560	6.86494	6.92203	7.83055	7.83293	7.89001	8.41087
3.601E-05	3.061E-05	2.899E-05	2.776E-05	2.054E-05	1.959E-05	1.934E-05	1.510E-05	1.232E-05	1.211E-05
54.887	54.931	62.082	62.725	64.041	72.187	72.216	76.164	78.343	78.387
8.92697	8.93411	10.09712	10.20177	10.41582	11.74056	11.74531	12.38747	12.74184	12.74898
8.325E-06	6.589E-06	6.417E-06	4.480E-06	2.800E-06	2.091E-06	1.254E-06	8.476E-07	6.534E-07	2.851E-07
81.560	82.540	83.754	84.222	84.675	87.058	92.147	97.265	99.415	100.000
13.26508	13.42443	13.62183	13.69794	13.77167	14.15934	14.98700	15.81942	16.16904	16.26418

X/Q PERCENTILES(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(3)=	5.353
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(4)=	7.827
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(5)=	10.094
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(6)=	11.738

Calculation No. PM-1055 Revision 0

Attachment J

Page 1148 of 1411

K I XQSAVE(K,I) XQINT(K,I) XQSLOP(K,I)

15 1 -6.36563 -10.03461 -0.87661

15 2 -8.49120 -14.90259 -3.64148

15 3 -9.03426 -15.70042 -4.13656

15 4 -9.83966 -15.97502 -4.33038

15 5 -10.44855 -16.13146 -4.45296

15 6 -10.84059 NUMXQ(K)= 6

5.787E-04 0.163 1.000

4.227E-04 0.488 3.000

3.606E-04 0.813 5.000

2.858E-04 1.626 10.000

2.468E-04 2.440 15.000

2.211E-04 3.253 20.000

1.928E-04 4.066 25.000

1.408E-04 4.879 30.000

1.053E-04 5.692 35.000

7.965E-05 6.506 40.000

6.183E-05 7.319 45.000

4.880E-05 8.132 50.000

3.894E-05 8.945 55.000

3.153E-05 9.759 60.000

2.577E-05 10.572 65.000

2.125E-05 11.385 70.000

4.196E-04 0.5 3.07

ANNUAL AVERAGE = 9.87E-06

K= 15 FIVEXQ(K)= 4.196E-04 FIVEPR(K)= 3.074

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 01/09/03

Page 1149 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Ground Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, 1984-1988, 1A met (w/ RT wind), RB Stack to EAB and LPZ

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 13.7 meters

DELTA-T HEIGHTS: 10.4-21.1 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE SSE SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 10.0 METERS												CA=1292.SQ.METERS		
A	1.4	1.45	823.	0.	0.	157.1	310.1	157.1	4.518E-06	4.480E-06	4.480E-06			
A	3.1	3.32	823.	0.	0.	157.1	310.1	157.1	2.108E-06	2.091E-06	2.091E-06			
A	5.2	8.51	823.	0.	0.	157.1	310.1	157.1	1.265E-06	1.254E-06	1.254E-06			
A	7.6	9.43	823.	0.	0.	157.1	310.1	157.1	8.548E-07	8.476E-07	8.476E-07			
A	9.9	2.36	823.	0.	0.	157.1	310.1	157.1	6.589E-07	6.534E-07	6.534E-07			
A	22.7	0.35	823.	0.	0.	157.1	310.1	157.1	2.875E-07	2.851E-07	2.851E-07			
C	0.2	0.00	823.	0.	0.	89.7	51.2	89.7	3.356E-04	3.080E-04	3.080E-04			
C	1.4	0.63	823.	0.	0.	89.7	51.2	89.7	4.795E-05	4.401E-05	4.401E-05			
C	3.1	1.59	823.	0.	0.	89.7	51.2	89.7	2.238E-05	2.054E-05	2.054E-05			
C	5.2	2.79	823.	0.	0.	89.7	51.2	89.7	1.343E-05	1.232E-05	1.232E-05			
C	7.6	3.42	823.	0.	0.	89.7	51.2	89.7	9.071E-06	8.325E-06	8.325E-06			
C	9.9	1.08	823.	0.	0.	89.7	51.2	89.7	6.992E-06	6.417E-06	6.417E-06			
C	22.7	0.33	823.	0.	0.	89.7	51.2	89.7	3.051E-06	2.800E-06	2.800E-06			
D	0.2	0.00	823.	0.	0.	63.2	27.1	124.7	4.551E-04	7.248E-04	4.551E-04			
D	1.4	1.43	823.	0.	0.	63.2	27.1	124.7	6.501E-05	1.035E-04	6.501E-05			
D	3.1	3.48	823.	0.	0.	63.2	27.1	95.0	3.983E-05	4.832E-05	3.983E-05			
D	5.2	5.87	823.	0.	0.	63.2	27.1	69.3	3.278E-05	2.899E-05	2.899E-05			
D	7.6	6.48	823.	0.	0.	63.2	27.1	63.2	2.429E-05	1.959E-05	1.959E-05			
D	9.9	2.34	823.	0.	0.	63.2	27.1	63.2	1.872E-05	1.510E-05	1.510E-05			
D	22.7	0.61	823.	0.	0.	63.2	27.1	63.2	8.169E-06	6.589E-06	6.589E-06			
E	0.2	0.01	823.	0.	0.	44.9	18.7	132.5	6.730E-04	1.332E-03	6.730E-04			
E	1.3	3.28	823.	0.	0.	44.9	18.7	132.5	9.614E-05	1.903E-04	9.614E-05			
E	2.9	3.08	823.	0.	0.	44.9	18.7	92.8	6.402E-05	8.883E-05	6.402E-05			
E	4.8	3.67	823.	0.	0.	44.9	18.7	56.2	6.350E-05	5.330E-05	5.330E-05			
E	7.1	2.18	823.	0.	0.	44.9	18.7	44.9	5.365E-05	3.601E-05	3.601E-05			
E	9.2	0.39	823.	0.	0.	44.9	18.7	44.9	4.135E-05	2.776E-05	2.776E-05			
E	21.0	0.02	823.	0.	0.	44.9	18.7	44.9	1.804E-05	1.211E-05	1.211E-05			
F	0.2	0.01	823.	0.	0.	31.0	12.0	121.7	1.141E-03	2.127E-03	1.141E-03			
F	1.3	3.58	823.	0.	0.	31.0	12.0	121.7	1.630E-04	3.039E-04	1.630E-04			
F	2.9	3.01	823.	0.	0.	31.0	12.0	77.6	1.193E-04	1.418E-04	1.193E-04			
F	4.8	1.89	823.	0.	0.	31.0	12.0	41.1	1.351E-04	8.509E-05	8.509E-05			
F	7.1	0.41	823.	0.	0.	31.0	12.0	31.0	1.210E-04	5.750E-05	5.750E-05			
F	9.2	0.04	823.	0.	0.	31.0	12.0	31.0	9.328E-05	4.432E-05	4.432E-05			

Calculation No. PM-1055 Revision 0**Attachment J****Page 1150 of 1411**

G	0.2	0.01	823.	0.	0.	21.4	7.7	125.7	1.720E-03	3.367E-03	1.720E-03
G	1.3	12.02	823.	0.	0.	21.4	7.7	125.7	2.457E-04	4.809E-04	2.457E-04
G	2.9	9.33	823.	0.	0.	21.4	7.7	70.2	2.053E-04	2.244E-04	2.053E-04
G	4.8	1.45	823.	0.	0.	21.4	7.7	30.8	2.805E-04	1.347E-04	1.347E-04
G	7.1	0.14	823.	0.	0.	21.4	7.7	21.4	2.730E-04	9.099E-05	9.099E-05
G	21.0	0.02	823.	0.	0.	21.4	7.7	21.4	9.182E-05	3.061E-05	3.061E-05

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1151 of 1411

RUN DATE: 01/09/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 13.7 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.4 21.1 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, 1984-1988, 1A met (w/ RT wind), RB Stack to EAB and LPZ

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

SSE SECTOR BOUNDARY DISTANCE = 823.0 METERS

LATERAL PLUME MEANDER/BUILDING WAKE CREDIT ALLOWED

AS A FUNCTION OF DOWNWIND DISTANCE.

MEANDER CREDIT IS FOR WINDSPEEDS LESS THAN 6 MPS.

BUILDING WAKE CREDIT ALLOWED: C= 0.5 A= 2584. D= 54.3

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.720E-03	1.141E-03	6.730E-04	4.551E-04	3.080E-04	2.457E-04	2.053E-04	1.630E-04	1.347E-04	1.193E-04
0.008	0.017	0.028	0.029	0.031	12.048	21.377	24.962	26.408	29.423
0.00092	0.00199	0.00323	0.00341	0.00360	1.40683	2.49611	2.91470	3.08356	3.43556
9.614E-05	9.099E-05	8.509E-05	6.501E-05	6.402E-05	5.750E-05	5.330E-05	4.432E-05	4.401E-05	3.983E-05
32.702	32.845	34.739	36.165	39.240	39.648	43.314	43.355	43.986	47.469
3.81847	3.83512	4.05630	4.22279	4.58192	4.62949	5.05759	5.06235	5.13608	5.54277
3.601E-05	3.061E-05	2.899E-05	2.776E-05	2.054E-05	1.959E-05	1.510E-05	1.232E-05	1.211E-05	8.325E-06
49.649	49.669	55.535	55.922	57.511	63.988	66.331	69.121	69.142	72.563
5.79726	5.79963	6.48460	6.52979	6.71530	7.47161	7.74512	8.07096	8.07333	8.47290
6.589E-06	6.417E-06	4.480E-06	2.800E-06	2.091E-06	1.254E-06	8.476E-07	6.534E-07	2.851E-07	
73.175	74.254	75.700	76.026	79.346	87.860	97.291	99.654	100.000	
8.54425	8.67030	8.83916	8.87722	9.26489	10.25904	11.36021	11.63610	11.67653	

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS.
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(3)=	2.912
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(4)=	3.432
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(5)=	4.053
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(6)=	5.054
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(7)=	6.481

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(8)= 7.468

K	I	XQSAVE(K, I)	XQINT(K, I)	XQSLOP(K, I)
16	1	-6.36563	-10.28583	-0.91513
16	2	-8.49120	-15.22318	-3.43283
16	3	-8.72174	-16.80977	-4.27056
16	4	-9.03426	-17.10395	-4.43214
16	5	-9.37174	-17.15164	-4.45947
16	6	-9.83966	-17.88916	-4.90927
16	7	-10.44855	-18.49839	-5.31124
16	8	-10.84059	NUMXQ(K) = 8	
		5.531E-04	0.117	1.000
		4.025E-04	0.350	3.000
		3.430E-04	0.584	5.000
		2.718E-04	1.168	10.000
		2.349E-04	1.751	15.000
		2.107E-04	2.335	20.000
		1.625E-04	2.919	25.000
		1.147E-04	3.503	30.000
		8.378E-05	4.087	35.000
		6.325E-05	4.671	40.000
		4.864E-05	5.254	45.000
		3.764E-05	5.838	50.000
		2.970E-05	6.422	55.000
		2.344E-05	7.006	60.000
		3.604E-04	0.5	4.28

ANNUAL AVERAGE = 6.84E-06

K= 16 FIVEXQ(K) = 3.604E-04 FIVEPR(K) = 4.282

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 01/09/03

Page 1153 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Ground Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, 1984-1988, 1A met (w/ RT wind), RB Stack to EAB and LPZ

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 13.7 meters

DELTA-T HEIGHTS: 10.4-21.1 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE ALL SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 10.0 METERS												CA=1292.SQ.METERS		
A	1.4	2.62	823.	0.	0.	157.1	310.1	157.1	4.518E-06	4.480E-06	4.480E-06			
A	3.1	4.89	823.	0.	0.	157.1	310.1	157.1	2.108E-06	2.091E-06	2.091E-06			
A	5.2	5.27	823.	0.	0.	157.1	310.1	157.1	1.265E-06	1.254E-06	1.254E-06			
A	7.6	3.24	823.	0.	0.	157.1	310.1	157.1	8.548E-07	8.476E-07	8.476E-07			
A	9.9	0.79	823.	0.	0.	157.1	310.1	157.1	6.589E-07	6.534E-07	6.534E-07			
A	22.7	0.16	823.	0.	0.	157.1	310.1	157.1	2.875E-07	2.851E-07	2.851E-07			
C	0.2	0.00	823.	0.	0.	89.7	51.2	89.7	3.356E-04	3.080E-04	3.080E-04			
C	1.4	0.92	823.	0.	0.	89.7	51.2	89.7	4.795E-05	4.401E-05	4.401E-05			
C	3.1	2.22	823.	0.	0.	89.7	51.2	89.7	2.238E-05	2.054E-05	2.054E-05			
C	5.2	2.61	823.	0.	0.	89.7	51.2	89.7	1.343E-05	1.232E-05	1.232E-05			
C	7.6	1.72	823.	0.	0.	89.7	51.2	89.7	9.071E-06	8.325E-06	8.325E-06			
C	9.9	0.51	823.	0.	0.	89.7	51.2	89.7	6.992E-06	6.417E-06	6.417E-06			
C	22.7	0.13	823.	0.	0.	89.7	51.2	89.7	3.051E-06	2.800E-06	2.800E-06			
D	0.2	0.00	823.	0.	0.	63.2	27.1	63.2	8.986E-04	7.248E-04	7.248E-04			
D	1.4	2.25	823.	0.	0.	63.2	27.1	63.2	1.284E-04	1.035E-04	1.035E-04			
D	3.1	6.06	823.	0.	0.	63.2	27.1	63.2	5.991E-05	4.832E-05	4.832E-05			
D	5.2	7.33	823.	0.	0.	63.2	27.1	63.2	3.594E-05	2.899E-05	2.899E-05			
D	7.6	4.71	823.	0.	0.	63.2	27.1	63.2	2.429E-05	1.959E-05	1.959E-05			
D	9.9	1.37	823.	0.	0.	63.2	27.1	63.2	1.872E-05	1.510E-05	1.510E-05			
D	22.7	0.28	823.	0.	0.	63.2	27.1	63.2	8.169E-06	6.589E-06	6.589E-06			
E	0.2	0.01	823.	0.	0.	44.9	18.7	44.9	1.985E-03	1.332E-03	1.332E-03			
E	1.3	2.94	823.	0.	0.	44.9	18.7	44.9	2.836E-04	1.903E-04	1.903E-04			
E	2.9	5.43	823.	0.	0.	44.9	18.7	44.9	1.323E-04	8.883E-05	8.883E-05			
E	4.8	4.90	823.	0.	0.	44.9	18.7	44.9	7.940E-05	5.330E-05	5.330E-05			
E	7.1	1.68	823.	0.	0.	44.9	18.7	44.9	5.365E-05	3.601E-05	3.601E-05			
E	9.2	0.27	823.	0.	0.	44.9	18.7	44.9	4.135E-05	2.776E-05	2.776E-05			
E	21.0	0.04	823.	0.	0.	44.9	18.7	44.9	1.804E-05	1.211E-05	1.211E-05			
F	0.2	0.01	823.	0.	0.	31.0	12.0	31.0	4.478E-03	2.127E-03	2.127E-03			
F	1.3	3.70	823.	0.	0.	31.0	12.0	31.0	6.397E-04	3.039E-04	3.039E-04			
F	2.9	4.19	823.	0.	0.	31.0	12.0	31.0	2.985E-04	1.418E-04	1.418E-04			
F	4.8	2.22	823.	0.	0.	31.0	12.0	31.0	1.791E-04	8.509E-05	8.509E-05			
F	7.1	0.23	823.	0.	0.	31.0	12.0	31.0	1.210E-04	5.750E-05	5.750E-05			
F	9.2	0.01	823.	0.	0.	31.0	12.0	31.0	9.328E-05	4.432E-05	4.432E-05			
F	21.0	0.01	823.	0.	0.	31.0	12.0	31.0	4.071E-05	1.934E-05	1.934E-05			

G	0.2	0.01	823.	0.	0.	21.4	7.7	21.4	1.010E-02	3.367E-03	3.367E-03
G	1.3	14.53	823.	0.	0.	21.4	7.7	21.4	1.443E-03	4.809E-04	4.809E-04
G	2.9	10.79	823.	0.	0.	21.4	7.7	21.4	6.734E-04	2.244E-04	2.244E-04
G	4.8	1.76	823.	0.	0.	21.4	7.7	21.4	4.040E-04	1.347E-04	1.347E-04
G	7.1	0.09	823.	0.	0.	21.4	7.7	21.4	2.730E-04	9.099E-05	9.099E-05
G	9.2	0.01	823.	0.	0.	21.4	7.7	21.4	2.104E-04	7.014E-05	7.014E-05
G	21.0	0.06	823.	0.	0.	21.4	7.7	21.4	9.182E-05	3.061E-05	3.061E-05

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 1155 of 1411**

RUN DATE: 01/09/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 13.7 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.4 21.1 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, 1984-1988, 1A met (w/ RT wind), RB Stack to EAB and LPZ

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

DIRECTION-INDEPENDENT (S.R.P 2.3.4) MODEL.

MINIMUM BOUNDARY DISTANCE = 823.0 METERS.

BUILDING WAKE CREDIT ALLOWED: C= 0.5 A= 2584. D= 54.3

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

3.367E-03	2.127E-03	1.332E-03	7.248E-04	4.809E-04	3.080E-04	3.039E-04	2.244E-04	1.903E-04	1.418E-04
0.010	0.019	0.029	0.031	14.563	14.565	18.268	29.061	31.998	36.187
0.00951	0.01903	0.02854	0.03092	14.56262	14.56500	18.26809	29.06103	31.99829	36.18656
1.347E-04	1.035E-04	9.099E-05	8.883E-05	8.509E-05	7.014E-05	5.750E-05	5.330E-05	4.832E-05	4.432E-05
37.949	40.204	40.296	45.726	47.945	47.952	48.178	53.080	59.142	59.157
37.94891	40.20358	40.29634	45.72610	47.94510	47.95224	48.17818	53.07995	59.14236	59.15663
4.401E-05	3.601E-05	3.061E-05	2.899E-05	2.776E-05	2.054E-05	1.959E-05	1.934E-05	1.510E-05	1.232E-05
60.077	61.759	61.823	69.150	69.417	71.638	76.352	76.366	77.736	80.345
60.07705	61.75854	61.82276	69.15045	69.41682	71.63820	76.35208	76.36635	77.73627	80.34532
1.211E-05	8.325E-06	6.589E-06	6.417E-06	4.480E-06	2.800E-06	2.091E-06	1.254E-06	8.476E-07	6.534E-07
80.383	82.103	82.386	82.893	85.509	85.640	90.534	95.802	99.044	99.836
80.38338	82.10292	82.38594	82.89253	85.50871	85.63952	90.53416	95.80220	99.04388	99.83588
2.851E-07									
100.000									
99.99998									

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY
1.212E-03	1.000	1.000
8.767E-04	3.000	3.000
7.385E-04	5.000	5.000
5.670E-04	10.000	10.000
4.673E-04	15.000	15.000

3.480E-04	20.000	20.000
2.703E-04	25.000	25.000
2.129E-04	30.000	30.000
1.625E-04	35.000	35.000
1.258E-04	40.000	40.000
9.823E-05	45.000	45.000
7.696E-05	50.000	50.000
6.024E-05	55.000	55.000
4.695E-05	60.000	60.000
3.628E-05	65.000	65.000
2.792E-05	70.000	70.000
2.211E-05	75.000	75.000
1.705E-05	80.000	80.000
1.259E-05	85.000	85.000
8.600E-06	90.000	90.000

7.385E-04	5.0	5.00
-----------	-----	------

K= 17 FIVEXQ(K)= 7.385E-04 FIVEPR(K)= 5.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1157 of 1411

RUN DATE: 01/09/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 13.7 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.4-21.1 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, 1984-1988, 1A met (w/ RT wind), RB Stack to EAB and LPZ

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:**FIVE PERCENT OVERALL SITE LIMIT**

BUILDING WAKE CREDIT ALLOWED: C= 0.5 A= 2584. D= 54.3

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.720E-03	1.141E-03	6.730E-04	4.551E-04	3.080E-04	2.457E-04	2.053E-04	1.630E-04	1.347E-04	1.193E-04
0.010	0.019	0.029	0.031	0.033	14.565	25.358	29.061	30.823	35.012
0.00951	0.01903	0.02854	0.03092	0.03330	14.56500	25.35794	29.06103	30.82339	35.01165
9.614E-05	9.099E-05	8.509E-05	7.014E-05	6.501E-05	6.402E-05	5.750E-05	5.330E-05	4.432E-05	4.401E-05
37.949	38.042	40.261	40.268	42.522	47.952	48.178	53.080	53.094	54.015
37.94891	38.04166	40.26066	40.26779	42.52247	47.95224	48.17818	53.07996	53.09422	54.01464
3.983E-05	3.601E-05	3.061E-05	2.899E-05	2.776E-05	2.054E-05	1.959E-05	1.934E-05	1.510E-05	1.232E-05
60.077	61.759	61.823	69.150	69.417	71.638	76.352	76.366	77.736	80.345
60.07705	61.75853	61.82274	69.15044	69.41681	71.63819	76.35206	76.36633	77.73624	80.34530
1.211E-05	8.325E-06	6.589E-06	6.417E-06	4.480E-06	2.800E-06	2.091E-06	1.254E-06	8.476E-07	6.534E-07
80.383	82.103	82.386	82.893	85.509	85.640	90.534	95.802	99.044	99.836
80.38335	82.10289	82.38591	82.89250	85.50870	85.63951	90.53417	95.80221	99.04390	99.83588
2.851E-07									
100.000									
99.99999									

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
18	1	-6.36563	-8.95040	-0.69265
18	2	-8.49120	-9.75391	-1.90466
18	3	-9.65636	-9.72953	-1.42869

18 4 -9.83966 -9.72860 -1.44073
 18 5 -10.44855 -9.67203 -1.55395
 18 6 -14.24111 NUMXQ(K)= 6

6.499E-04	1.000	1.000
4.773E-04	3.000	3.000
4.053E-04	5.000	5.000
3.151E-04	10.000	10.000
2.659E-04	15.000	15.000
2.323E-04	20.000	20.000
2.069E-04	25.000	25.000
1.575E-04	30.000	30.000
1.209E-04	35.000	35.000
9.401E-05	40.000	40.000
7.373E-05	45.000	45.000
5.950E-05	50.000	50.000
4.971E-05	55.000	55.000
4.137E-05	60.000	60.000
3.421E-05	65.000	65.000
2.792E-05	70.000	70.000
2.211E-05	75.000	75.000
1.705E-05	80.000	80.000
1.259E-05	85.000	85.000
8.600E-06	90.000	90.000

4.053E-04 5.0 5.00

K= 18 FIVEXQ(K)= 4.053E-04 FIVEPR(K)= 5.000

K	HIGHPR	PR	GRNDVT(K)
1	-3.13564	0.08575	5.95274
2	-1.71237	4.34139	2.40814
3	-3.46978	0.02605	2.26292
4	-3.39955	0.03375	2.31533
5	-3.37261	0.03724	3.63081
6	-3.23425	0.06099	5.59839
7	-2.97277	0.14757	8.93388
8	-2.94120	0.16348	8.82811
9	-2.94751	0.16018	4.84630
10	-3.03741	0.11932	2.27485
11	-2.87959	0.19910	3.07929
12	-2.78098	0.27098	3.93100
13	-2.57624	0.49942	7.21397
14	-2.64925	0.40336	10.78356
15	-2.58984	0.48010	16.26418
16	-2.75535	0.29315	11.67653

K	HOURS(K)	TOTHR
1	7.51146	7.51146
2	380.30560	387.81700
3	2.28174	390.09880
4	2.95686	393.05560
5	3.26179	396.31740
6	5.34250	401.65990

7	12.92706	414.58690
8	14.32064	428.90760
9	14.03190	442.93950
10	10.45213	453.39160
11	17.44145	470.83310
12	23.73790	494.57100
13	43.74879	538.31980
14	35.33403	573.65380
15	42.05654	615.71030
16	25.68025	641.39060

K	FIVEXQ	SVANN	SLTIME	TIMINT	I	TIME	XQT
1	2.419E-04	3.073E-06	-0.5207	-7.9662	1	8.0	-9.04890
					2	16.0	-9.40979
					3	72.0	-10.19291
					4	624.0	-11.31727
2	1.333E-04	1.372E-06	-0.5457	-8.5450	1	8.0	-9.67980
					2	16.0	-10.05808
					3	72.0	-10.87893
					4	624.0	-12.05745
3	1.174E-04	1.277E-06	-0.5392	-8.6765	1	8.0	-9.79772
					2	16.0	-10.17146
					3	72.0	-10.98242
					4	624.0	-12.14678
4	1.128E-04	1.357E-06	-0.5272	-8.7243	1	8.0	-9.82056
					2	16.0	-10.18597
					3	72.0	-10.97888
					4	624.0	-12.11731
5	1.535E-04	1.775E-06	-0.5319	-8.4131	1	8.0	-9.51906
					2	16.0	-9.88773
					3	72.0	-10.68772
					4	624.0	-11.83630
6	2.170E-04	2.780E-06	-0.5197	-8.0752	1	8.0	-9.15589
					2	16.0	-9.51611
					3	72.0	-10.29777
					4	624.0	-11.42003
7	2.921E-04	4.939E-06	-0.4866	-7.8010	1	8.0	-8.81280
					2	16.0	-9.15007
					3	72.0	-9.88193
					4	624.0	-10.93270
8	3.008E-04	4.678E-06	-0.4966	-7.7649	1	8.0	-8.79743
					2	16.0	-9.14162
					3	72.0	-9.88848
					4	624.0	-10.96079
9	2.966E-04	3.807E-06	-0.5194	-7.7632			

					1	8.0	-8.84335
					2	16.0	-9.20338
					3	72.0	-9.98462
					4	624.0	-11.10630
10	2.691E-04	2.471E-06	-0.5594	-7.8325	1	8.0	-8.99577
					2	16.0	-9.38352
					3	72.0	-10.22489
					4	624.0	-11.43289
11	3.180E-04	3.800E-06	-0.5280	-7.6876	1	8.0	-8.78545
					2	16.0	-9.15140
					3	72.0	-9.94548
					4	624.0	-11.08558
12	3.509E-04	5.070E-06	-0.5053	-7.6048	1	8.0	-8.65559
					2	16.0	-9.00585
					3	72.0	-9.76588
					4	624.0	-10.85710
13	4.246E-04	8.376E-06	-0.4682	-7.4398	1	8.0	-8.41338
					2	16.0	-8.73791
					3	72.0	-9.44211
					4	624.0	-10.45318
14	3.978E-04	7.951E-06	-0.4666	-7.5061	1	8.0	-8.47638
					2	16.0	-8.79982
					3	72.0	-9.50166
					4	624.0	-10.50932
15	4.196E-04	9.871E-06	-0.4472	-7.4663	1	8.0	-8.39617
					2	16.0	-8.70613
					3	72.0	-9.37872
					4	624.0	-10.34440
16	3.604E-04	6.843E-06	-0.4728	-7.6005	1	8.0	-8.58362
					2	16.0	-8.91131
					3	72.0	-9.62238
					4	624.0	-10.64330
17	7.385E-04	9.871E-06	-0.5146	-6.8542	1	8.0	-7.92431
					2	16.0	-8.28100
					3	72.0	-9.05500
					4	624.0	-10.16627
18	4.053E-04	9.871E-06	-0.4431	-7.5037	1	8.0	-8.42504
					2	16.0	-8.73214
					3	72.0	-9.39853
					4	624.0	-10.35530

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 01/09/03

Page 1161 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Ground Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, 1984-1988, 1A met. (w/ RT wind), RB Stack to EAB and LPZ

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 13.7 meters

DELTA-T HEIGHTS: 10.4-21.1 meters

RELATIVE CONCENTRATION (X/Q) VALUES (SEC/CUBIC METER)

VERSUS

AVERAGING TIME

HOURS PER YEAR MAX

0-2 HR X/Q IS

EXCEEDED

DOWNWIND DISTANCE									DOWNWIND
SECTOR	(METERS)	0-2 HOURS	0-8 HOURS	8-24 HOURS	1-4 DAYS	4-30 DAYS	ANNUAL AVERAGE	IN SECTOR	SECTOR
S	823.	2.42E-04	1.18E-04	8.19E-05	3.74E-05	1.22E-05	3.07E-06	7.5	S
SSW	823.	1.33E-04	6.25E-05	4.28E-05	1.89E-05	5.80E-06	1.37E-06	380.3	SSW
SW	823.	1.17E-04	5.56E-05	3.82E-05	1.70E-05	5.31E-06	1.28E-06	2.3	SW
WSW	823.	1.13E-04	5.43E-05	3.77E-05	1.71E-05	5.46E-06	1.36E-06	3.0	WSW
W	823.	1.54E-04	7.34E-05	5.08E-05	2.28E-05	7.24E-06	1.78E-06	3.3	W
WNW	823.	2.17E-04	1.06E-04	7.37E-05	3.37E-05	1.10E-05	2.78E-06	5.3	WNW
NW	823.	2.92E-04	1.49E-04	1.06E-04	5.11E-05	1.79E-05	4.94E-06	12.9	NW
NNW	823.	3.01E-04	1.51E-04	1.07E-04	5.08E-05	1.74E-05	4.68E-06	14.3	NNW
N	823.	2.97E-04	1.44E-04	1.01E-04	4.61E-05	1.50E-05	3.81E-06	14.0	N
NNE	823.	2.69E-04	1.24E-04	8.41E-05	3.63E-05	1.08E-05	2.47E-06	10.5	NNE
NE	823.	3.18E-04	1.53E-04	1.06E-04	4.79E-05	1.53E-05	3.80E-06	17.4	NE
ENE	823.	3.51E-04	1.74E-04	1.23E-04	5.74E-05	1.93E-05	5.07E-06	23.7	ENE
E	823.	4.25E-04	2.22E-04	1.60E-04	7.93E-05	2.89E-05	8.38E-06	43.7	E
ESE	823.	3.98E-04	2.08E-04	1.51E-04	7.47E-05	2.73E-05	7.95E-06	35.3	ESE
SE	823.	4.20E-04	2.26E-04	1.66E-04	8.45E-05	3.22E-05	9.87E-06	42.1	SE
SSE	823.	3.60E-04	1.87E-04	1.35E-04	6.62E-05	2.39E-05	6.84E-06	25.7	SSE
MAX X/Q		4.25E-04					TOTAL HOURS AROUND SITE:	641.4	
SRP 2.3.4	823.	7.38E-04	3.62E-04	2.53E-04	1.17E-04	3.84E-05	9.87E-06		
SITE LIMIT		4.05E-04	2.19E-04	1.61E-04	8.28E-05	3.18E-05	9.87E-06		

THE FIVE-PERCENT-FOR-THE-ENTIRE-SITE X/Q IS LIMITING.

****NOTE**:** VALUES ON THIS PAGE ARE APPROXIMATIONS ONLY.
 CHECK THE REASONABLENESS OF THE ENVELOPES
 COMPUTED FOR THE 0-2 HOUR VALUES. FOR ANY
 FAULTY ENVELOPES, ADJUST THE ABOVE VALUES.

PRINTOUT OF INPUT CARDS

[illegible]

PAVAN Input**Reactor Building Stacks to EAB and LPZ (Tower 2 33' wind and 150'-33' Delta T Stability Class)**

1 1111
Peach Bottom Ground Release
10.1 meters 10.1-45.7 meters

Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

7	0																		
2584.	54.3	10.0	10.1																
0	0	0	8	54	26	15													
88.	134.	141.	143.	102.	79.	50.	32.	8.	3.	4.	7.	15.	16.	24.	40.				
168.	81.	31.	28.	44.	97.	109.	79.	71.	43.	54.	39.	93.	104.	77.	202.				
28.	1.	1.	0.	0.	8.	6.	29.	98.	31.	39.	28.	58.	36.	25.	90.				
1.	0.	0.	0.	0.	0.	0.	5.	13.	1.	3.	1.	4.	8.	3.	1.				
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.				
0.	1.	1.	0.	2.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.				
60.	56.	64.	67.	61.	44.	23.	13.	12.	2.	6.	6.	15.	12.	9.	38.				
144.	40.	11.	15.	12.	31.	56.	72.	91.	45.	64.	42.	64.	71.	68.	166.				
38.	2.	0.	0.	1.	6.	9.	34.	145.	46.	28.	24.	51.	71.	89.	168.				
2.	0.	0.	0.	0.	0.	0.	7.	22.	1.	3.	0.	2.	16.	21.	9.				
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	0.	0.				
0.	0.	0.	0.	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.				
32.	46.	26.	48.	35.	27.	11.	5.	6.	0.	5.	4.	6.	7.	9.	33.				
58.	10.	3.	8.	9.	10.	33.	53.	66.	24.	24.	21.	42.	37.	46.	125.				
16.	1.	0.	0.	1.	1.	5.	17.	75.	31.	22.	22.	35.	53.	80.	125.				
1.	0.	0.	0.	0.	1.	0.	3.	8.	0.	0.	0.	3.	12.	20.	16.				
0.	0.	0.	0.	0.	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.	0.				
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.				
389.	338.	437.	318.	296.	175.	154.	229.	177.	92.	78.	105.	122.	128.	192.	238.				
571.	160.	66.	35.	65.	145.	381.	592.	544.	233.	188.	175.	297.	432.	740.	922.				
220.	8.	0.	0.	2.	8.	77.	150.	325.	108.	78.	74.	214.	575.	922.	792.				
23.	0.	0.	0.	0.	0.	2.	12.	45.	10.	5.	4.	43.	57.	169.	132.				
0.	0.	0.	0.	0.	0.	0.	0.	0.	2.	0.	0.	0.	1.	0.	0.				
2.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.				
517.	416.	415.	383.	515.	470.	543.	600.	634.	375.	325.	395.	448.	498.	609.	427.				
448.	92.	76.	74.	106.	177.	395.	677.	771.	391.	324.	434.	668.	1004.	948.	761.				
73.	4.	1.	0.	6.	17.	52.	71.	202.	54.	46.	51.	123.	193.	257.	211.				
4.	0.	0.	0.	0.	0.	1.	6.	25.	4.	0.	0.	6.	8.	9.	10.				
0.	0.	0.	0.	0.	0.	0.	0.	1.	0.	0.	0.	0.	0.	0.	1.				
1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	6.				
130.	81.	74.	92.	180.	224.	129.	99.	121.	196.	294.	451.	500.	416.	331.	162.				
7.	0.	5.	2.	3.	14.	24.	18.	49.	46.	97.	252.	213.	136.	91.	38.				
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	3.	0.	1.	1.	2.				
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.				
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.				
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.				
35.	30.	29.	49.	88.	55.	32.	27.	23.	33.	166.	492.	425.	234.	119.	58.				
1.	4.	0.	0.	3.	5.	2.	0.	0.	7.	59.	254.	71.	16.	7.	3.				
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	0.	0.	0.	1.				
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.				
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.				

[illegible]

0. 0. 0.

Reactor Building Stacks to EAB and LPZ (Tower 2 33' wind and 150'-33' Delta T Stability Class)

RUN DATE: 01/28/03

1	00010	01111	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	00000	2	Peach Bottom		
Ground Release																			
3	10.1 meters			10.1-45.7 meters															
4																			
5	Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T											6	7 42774			0			
7	0.500	2584.000	54.300	10.000	10.100														
8	0.000	0.000	0.000	8.000	54.000	26.000	15.000												
9	88.000	134.000	141.000	143.000	102.000	79.000	50.000	32.000	8.000	3.000	4.000	7.000	15.000	16.000	24.000	40.000			
9	168.000	81.000	31.000	28.000	44.000	97.000	109.000	79.000	71.000	43.000	54.000	39.000	93.000	104.000	77.000	202.000			
9	28.000	1.000	1.000	0.000	0.000	8.000	6.000	29.000	98.000	31.000	39.000	28.000	58.000	36.000	25.000	90.000			
9	1.000	0.000	0.000	0.000	0.000	0.000	0.000	5.000	13.000	1.000	3.000	1.000	4.000	8.000	3.000	1.000			
9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000			
9	0.000	1.000	1.000	0.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000			
9	60.000	56.000	64.000	67.000	61.000	44.000	23.000	13.000	12.000	2.000	6.000	6.000	15.000	12.000	9.000	38.000			
9	144.000	40.000	11.000	15.000	12.000	31.000	56.000	72.000	91.000	45.000	64.000	42.000	64.000	71.000	68.000	166.000			
9	38.000	2.000	0.000	0.000	1.000	6.000	9.000	34.000	145.000	46.000	28.000	24.000	51.000	71.000	89.000	168.000			
9	2.000	0.000	0.000	0.000	0.000	0.000	0.000	7.000	22.000	1.000	3.000	0.000	2.000	16.000	21.000	9.000			
9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000			
9	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000			
9	32.000	46.000	26.000	48.000	35.000	27.000	11.000	5.000	6.000	0.000	5.000	4.000	6.000	7.000	9.000	33.000			
9	58.000	10.000	3.000	8.000	9.000	10.000	33.000	53.000	66.000	24.000	24.000	21.000	42.000	37.000	46.000	125.000			
9	16.000	1.000	0.000	0.000	1.000	1.000	5.000	17.000	75.000	31.000	22.000	22.000	35.000	53.000	80.000	125.000			
9	1.000	0.000	0.000	0.000	0.000	1.000	0.000	3.000	8.000	0.000	0.000	0.000	3.000	12.000	20.000	16.000			
9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000			
9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000			
9	389.000	338.000	437.000	318.000	296.000	175.000	154.000	229.000	177.000	92.000	78.000	105.000	122.000	128.000	192.000	238.000			
9	571.000	160.000	66.000	35.000	65.000	145.000	381.000	592.000	544.000	233.000	188.000								

Page 1166 of 1411

[illegible]

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 01/28/03

Page 1167 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Ground Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 10.1 meters

DELTA-T HEIGHTS: 10.1 45.7 meters

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION

ATMOSPHERIC STABILITY CLASS A

WIND SPEED (M/S)

TOWER RELEASE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
0.22 0.22	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.56 1.56	0.206	0.313	0.330	0.334	0.238	0.185	0.117	0.075	0.019	0.007	0.009	0.016	0.035	0.037	0.056	0.094	2.071
3.35 3.34	0.393	0.189	0.072	0.065	0.103	0.227	0.255	0.185	0.166	0.101	0.126	0.091	0.217	0.243	0.180	0.472	3.086
5.59 5.57	0.065	0.002	0.002	0.000	0.000	0.019	0.014	0.068	0.229	0.072	0.091	0.065	0.136	0.084	0.058	0.210	1.118
8.27 8.25	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.012	0.030	0.002	0.007	0.002	0.009	0.019	0.007	0.002	0.094
10.73 10.70	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24.59 24.53	0.000	0.002	0.002	0.000	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.009
TOTAL	0.67	0.51	0.41	0.40	0.35	0.43	0.39	0.34	0.44	0.18	0.23	0.18	0.40	0.38	0.30	0.78	6.38

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION

ATMOSPHERIC STABILITY CLASS B

WIND SPEED (M/S)

TOWER RELEASE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
0.22 0.22	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.56 1.56	0.140	0.131	0.150	0.157	0.143	0.103	0.054	0.030	0.028	0.005	0.014	0.014	0.035	0.028	0.021	0.089	1.141
3.35 3.34	0.337	0.094	0.026	0.035	0.028	0.072	0.131	0.168	0.213	0.105	0.150	0.098	0.150	0.166	0.159	0.388	2.319
5.59 5.57	0.089	0.005	0.000	0.000	0.002	0.014	0.021	0.079	0.339	0.108	0.065	0.056	0.119	0.166	0.208	0.393	1.665
8.27 8.25	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.016	0.051	0.002	0.007	0.000	0.005	0.037	0.049	0.021	0.194
10.73 10.70	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.002
24.59 24.53	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002
TOTAL	0.57	0.23	0.18	0.19	0.17	0.19	0.21	0.29	0.63	0.22	0.24	0.17	0.31	0.40	0.44	0.89	5.32

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION

ATMOSPHERIC STABILITY CLASS C

WIND SPEED (M/S)

TOWER RELEASE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
0.22 0.22	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1.56 1.56	0.075	0.108	0.061	0.112	0.082	0.063	0.026	0.012	0.014	0.000	0.012	0.009	0.014	0.016	0.021	0.077	0.701
3.35 3.34	0.136	0.023	0.007	0.019	0.021	0.023	0.077	0.124	0.154	0.056	0.056	0.049	0.098	0.087	0.108	0.292	1.330
5.59 5.57	0.037	0.002	0.000	0.000	0.002	0.002	0.012	0.040	0.175	0.072	0.051	0.051	0.082	0.124	0.187	0.292	1.132
8.27 8.25	0.002	0.000	0.000	0.000	0.000	0.002	0.000	0.007	0.019	0.000	0.000	0.000	0.007	0.028	0.047	0.037	0.150
10.73 10.70	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002
24.59 24.53	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TOTAL	0.25	0.13	0.07	0.13	0.11	0.09	0.11	0.18	0.36	0.13	0.12	0.11	0.20	0.25	0.36	0.70	3.32

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION

ATMOSPHERIC STABILITY CLASS D

WIND SPEED (M/S)

TOWER RELEASE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
0.22 0.22	0.002	0.002	0.002	0.002	0.002	0.001	0.001	0.001	0.001	0.000	0.000	0.001	0.001	0.001	0.001	0.001	0.019
1.56 1.56	0.909	0.790	1.022	0.743	0.692	0.409	0.360	0.535	0.414	0.215	0.182	0.245	0.285	0.299	0.449	0.556	8.108

Calculation No. PM-1055 Revision 0
Attachment J
Page 1168 of 1411

3.35	3.34	1.335	0.374	0.154	0.082	0.152	0.339	0.891	1.384	1.272	0.545	0.440	0.409	0.694	1.010	1.730	2.156	12.966
5.59	5.57	0.514	0.019	0.000	0.000	0.005	0.019	0.180	0.351	0.760	0.252	0.182	0.173	0.500	1.344	2.156	1.852	8.306
8.27	8.25	0.054	0.000	0.000	0.000	0.000	0.000	0.005	0.028	0.105	0.023	0.012	0.009	0.101	0.133	0.395	0.309	1.174
10.73	10.70	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.005	0.000	0.000	0.000	0.002	0.000	0.000	0.007
24.59	24.53	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.007	0.012
TOTAL		2.82	1.18	1.18	0.83	0.85	0.77	1.44	2.30	2.55	1.04	0.82	0.84	1.58	2.79	4.73	4.88	30.59

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION
WIND SPEED (M/S)
ATMOSPHERIC STABILITY CLASS E

TOWER RELEASE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
0.22 0.22	0.009	0.007	0.007	0.006	0.009	0.008	0.009	0.010	0.011	0.006	0.005	0.007	0.007	0.008	0.010	0.007	0.126
1.56 1.56	1.209	0.973	0.970	0.895	1.204	1.099	1.269	1.403	1.482	0.877	0.760	0.923	1.047	1.164	1.424	0.998	17.698
3.35 3.34	1.047	0.215	0.178	0.173	0.248	0.414	0.923	1.583	1.802	0.914	0.757	1.015	1.562	2.347	2.216	1.779	17.174
5.59 5.56	0.171	0.009	0.002	0.000	0.014	0.040	0.122	0.166	0.472	0.126	0.108	0.119	0.288	0.451	0.601	0.493	3.182
8.27 8.23	0.009	0.000	0.000	0.000	0.000	0.000	0.002	0.014	0.058	0.009	0.000	0.000	0.014	0.019	0.021	0.023	0.171
10.73 10.68	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.005
24.59 24.47	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.014	0.016
TOTAL	2.45	1.20	1.16	1.07	1.47	1.56	2.33	3.18	3.83	1.93	1.63	2.06	2.92	3.99	4.27	3.32	38.37

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION
WIND SPEED (M/S)
ATMOSPHERIC STABILITY CLASS F

TOWER RELEASE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
0.22 0.22	0.002	0.001	0.001	0.002	0.003	0.004	0.002	0.002	0.002	0.003	0.005	0.008	0.009	0.007	0.006	0.003	0.061
1.56 1.56	0.304	0.189	0.173	0.215	0.421	0.524	0.302	0.231	0.283	0.458	0.687	1.054	1.169	0.973	0.774	0.379	8.136
3.35 3.34	0.016	0.000	0.012	0.005	0.007	0.033	0.056	0.042	0.115	0.108	0.227	0.589	0.498	0.318	0.213	0.089	2.326
5.59 5.56	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.007	0.000	0.002	0.002	0.005	0.019
8.27 8.23	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10.73 10.68	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24.59 24.47	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TOTAL	0.32	0.19	0.19	0.22	0.43	0.56	0.36	0.28	0.40	0.57	0.92	1.66	1.68	1.30	0.99	0.48	10.54

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION
WIND SPEED (M/S)
ATMOSPHERIC STABILITY CLASS G

TOWER RELEASE	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
0.22 0.22	0.001	0.001	0.001	0.001	0.002	0.001	0.001	0.000	0.000	0.001	0.003	0.009	0.008	0.004	0.002	0.001	0.035
1.56 1.56	0.082	0.070	0.068	0.115	0.206	0.129	0.075	0.063	0.054	0.077	0.388	1.150	0.994	0.547	0.278	0.136	4.430
3.35 3.34	0.002	0.009	0.000	0.000	0.007	0.012	0.005	0.000	0.000	0.016	0.138	0.594	0.166	0.037	0.016	0.007	1.010
5.59 5.56	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.002	0.005
8.27 8.23	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10.73 10.68	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24.59 24.47	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TOTAL	0.08	0.08	0.07	0.12	0.21	0.14	0.08	0.06	0.05	0.09	0.53	1.76	1.17	0.59	0.30	0.15	5.48

WIND MEASURED AT 10.1 METERS.

WIND SPEED CORRECTED TO THE RELEASE HEIGHT OF 10.0 METERS.

OVERALL WIND DIRECTION FREQUENCY

WIND DIRECTION:	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
FREQUENCY:	7.2	3.5	3.2	3.0	3.6	3.7	4.9	6.6	8.3	4.2	4.5	6.8	8.2	9.7	11.4	11.2

OVERALL WIND SPEED FREQUENCY AS MEASURED ON THE TOWER:

MAX.WIND SPEED (M/S): 0.224 1.565 3.353 5.588 8.270 10.729 24.587
WIND SPEED FREQUENCY: 0.24 42.29 40.21 15.43 1.78 0.02 0.04

BUILDING AND RELEASE CHARACTERISTICS:

RELEASE HEIGHT: 10.00 METERS
MIXING VOLUME COEFFICIENT: 0.50
BUILDING CROSS-SECTIONAL AREA: 2584.00 SQUARE METERS

BOUNDARY DISTANCES (METERS) FROM THE SOURCE FOR EACH DOWNWIND SECTOR:

DOWNWIND SECTOR	S	SSW	SW	WSW	W	WNW	NW	NNW	N	NNE	NE	ENE	E	ESE	SE	SSE
BOUNDARY 1	823.	823.	823.	823.	823.	823.	823.	823.	823.	823.	823.	823.	823.	823.	823.	823.
BOUNDARY 2	7300.	7300.	7300.	7300.	7300.	7300.	7300.	7300.	7300.	7300.	7300.	7300.	7300.	7300.	7300.	7300.

THE CONVERSION FACTOR APPLIED TO THE WIND SPEED CLASSES IS 0.447

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 1170 of 1411**

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 10.1 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.1-45.7 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

WINDSPEEDS ADJUSTED TO 10.0 METERS.

PERCENT OF THE TIME A GIVEN WINDSPEED IS LOWER:

WINDSPEED (METER/SEC)	CUMULATIVE FREQUENCY (PERCENT)
0.22	0.22
0.22	0.24
1.56	30.50
1.56	42.53
3.34	63.04
3.34	82.74
5.56	85.94
5.57	98.16
8.23	98.33
8.25	99.94
10.68	99.95
10.70	99.96
24.47	99.98
24.53	100.00

WINDSPEED (INTERPOLATED) (METER/SEC)	CUMULATIVE FREQUENCY (PERCENT)
0.22	0.24
1.56	42.53
3.34	82.74
5.57	98.16
8.25	99.94
10.69	99.96
24.50	100.00

LOG-NORMAL INTERPOLATION PERCENTILES

WINDSPEED (METER/SEC)	CUMULATIVE FREQUENCY (PERCENT)
0.32	1.00
0.45	3.00
0.53	5.00
0.69	10.00
0.83	15.00
0.96	20.00

1.09	25.00
1.21	30.00
1.35	35.00
1.48	40.00
1.62	45.00
1.77	50.00
1.92	55.00
2.10	60.00
2.29	65.00
2.52	70.00
2.79	75.00
3.12	80.00
3.55	85.00
3.88	90.00

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1172 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Ground Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 10.1 meters

DELTA-T HEIGHTS: 10.1 45.7 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE S SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 10.0 METERS												CA=1292.SQ.METERS		
A	1.6	2.87	823.	0.	0.	157.1	310.1	157.1	4.187E-06	4.152E-06	4.152E-06			
A	3.3	5.49	823.	0.	0.	157.1	310.1	157.1	1.954E-06	1.937E-06	1.937E-06			
A	5.6	0.91	823.	0.	0.	157.1	310.1	157.1	1.172E-06	1.162E-06	1.162E-06			
A	8.2	0.03	823.	0.	0.	157.1	310.1	157.1	7.921E-07	7.854E-07	7.854E-07			
B	1.6	1.96	823.	0.	0.	118.1	88.8	118.1	1.945E-05	1.871E-05	1.871E-05			
B	3.3	4.70	823.	0.	0.	118.1	88.8	118.1	9.075E-06	8.732E-06	8.732E-06			
B	5.6	1.24	823.	0.	0.	118.1	88.8	118.1	5.445E-06	5.239E-06	5.239E-06			
B	8.2	0.07	823.	0.	0.	118.1	88.8	118.1	3.679E-06	3.540E-06	3.540E-06			
C	1.6	1.04	823.	0.	0.	89.7	51.2	89.7	4.443E-05	4.078E-05	4.078E-05			
C	3.3	1.89	823.	0.	0.	89.7	51.2	89.7	2.073E-05	1.903E-05	1.903E-05			
C	5.6	0.52	823.	0.	0.	89.7	51.2	89.7	1.244E-05	1.142E-05	1.142E-05			
C	8.2	0.03	823.	0.	0.	89.7	51.2	89.7	8.406E-06	7.714E-06	7.714E-06			
D	0.2	0.03	823.	0.	0.	63.2	27.1	124.7	4.217E-04	6.716E-04	4.217E-04			
D	1.6	12.70	823.	0.	0.	63.2	27.1	124.7	6.024E-05	9.594E-05	6.024E-05			
D	3.3	18.64	823.	0.	0.	63.2	27.1	90.6	3.869E-05	4.477E-05	3.869E-05			
D	5.6	7.18	823.	0.	0.	63.2	27.1	66.1	3.183E-05	2.686E-05	2.686E-05			
D	8.2	0.75	823.	0.	0.	63.2	27.1	63.2	2.250E-05	1.815E-05	1.815E-05			
D	24.5	0.07	823.	0.	0.	63.2	27.1	63.2	7.570E-06	6.105E-06	6.105E-06			
E	0.2	0.12	823.	0.	0.	44.9	18.7	132.5	5.778E-04	1.144E-03	5.778E-04			
E	1.6	16.88	823.	0.	0.	44.9	18.7	132.5	8.255E-05	1.634E-04	8.255E-05			
E	3.3	14.63	823.	0.	0.	44.9	18.7	79.9	6.389E-05	7.627E-05	6.389E-05			
E	5.6	2.38	823.	0.	0.	44.9	18.7	48.4	6.329E-05	4.576E-05	4.576E-05			
E	8.2	0.13	823.	0.	0.	44.9	18.7	44.9	4.606E-05	3.092E-05	3.092E-05			
E	24.5	0.03	823.	0.	0.	44.9	18.7	44.9	1.549E-05	1.040E-05	1.040E-05			
F	0.2	0.03	823.	0.	0.	31.0	12.0	121.7	9.797E-04	1.827E-03	9.797E-04			
F	1.6	4.24	823.	0.	0.	31.0	12.0	121.7	1.400E-04	2.609E-04	1.400E-04			
F	3.3	0.23	823.	0.	0.	31.0	12.0	64.2	1.238E-04	1.218E-04	1.218E-04			
G	0.2	0.01	823.	0.	0.	21.4	7.7	125.7	1.477E-03	2.891E-03	1.477E-03			
G	1.6	1.14	823.	0.	0.	21.4	7.7	125.7	2.109E-04	4.129E-04	2.109E-04			
G	3.3	0.03	823.	0.	0.	21.4	7.7	54.9	2.255E-04	1.927E-04	1.927E-04			

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1173 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 10.1 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.1 45.7 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

S SECTOR BOUNDARY DISTANCE = 823.0 METERS

LATERAL PLUME MEANDER/BUILDING WAKE CREDIT ALLOWED

AS A FUNCTION OF DOWNWIND DISTANCE.

MEANDER CREDIT IS FOR WINDSPEEDS LESS THAN 6 MPS.

BUILDING WAKE CREDIT ALLOWED: C= 0.5 A= 2584. D= 54.3

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.477E-03	9.797E-04	5.778E-04	4.217E-04	2.109E-04	1.927E-04	1.400E-04	1.218E-04	8.255E-05	6.389E-05
0.009	0.041	0.161	0.190	1.333	1.366	5.610	5.839	22.719	37.346
0.00065	0.00292	0.01154	0.01364	0.09546	0.09780	0.40172	0.41809	1.62677	2.67413
6.024E-05	4.576E-05	4.078E-05	3.869E-05	3.092E-05	2.686E-05	1.903E-05	1.871E-05	1.815E-05	1.142E-05
50.046	52.430	53.474	72.117	72.248	79.431	81.324	83.283	84.034	84.557
3.58356	3.75423	3.82904	5.16396	5.17332	5.68765	5.82324	5.96351	6.01729	6.05469
1.040E-05	8.732E-06	7.714E-06	6.105E-06	5.239E-06	4.152E-06	3.540E-06	1.937E-06	1.162E-06	7.854E-07
84.589	89.291	89.324	89.389	90.630	93.503	93.568	99.053	99.967	100.000
6.05703	6.39368	6.39602	6.40070	6.48954	6.69527	6.69994	7.09271	7.15817	7.16050

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(2)=	0.003
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(3)=	3.580
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(4)=	5.160
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(5)=	5.684
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(6)=	6.013

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
1	1	-6.51806	-11.75655	-1.20127
1	2	-6.92826	-11.98287	-1.25757

Calculation No. PM-1055 Revision 0**Attachment J****Page 1174 of 1411**

1 3 -9.71722 -14.35068 -2.57185
1 4 -10.15982 -22.64514 -7.66200
1 5 -10.52476 -32.48936 -13.88511
1 6 -10.91680 NUMXQ(K) = 6

3.446E-04	0.072	1.000
2.268E-04	0.215	3.000
1.840E-04	0.358	5.000
1.361E-04	0.716	10.000
1.127E-04	1.074	15.000
9.803E-05	1.432	20.000
8.762E-05	1.790	25.000
7.973E-05	2.148	30.000
7.345E-05	2.506	35.000
6.831E-05	2.864	40.000
6.398E-05	3.222	45.000
6.027E-05	3.580	50.000
5.389E-05	3.938	55.000
4.854E-05	4.296	60.000
4.403E-05	4.654	65.000
4.016E-05	5.012	70.000
3.340E-05	5.370	75.000
2.557E-05	5.728	80.000

1.596E-04 0.5 6.98

ANNUAL AVERAGE = 3.66E-06

K= 1 FIVEXQ(K) = 1.596E-04 FIVEPR(K) = 6.983

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 01/28/03

Page 1175 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Ground Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 10.1 meters

DELTA-T HEIGHTS: 10.1-45.7 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE SSW SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN HT	EFF PLUME HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 10.0 METERS			CA=1292.SQ.METERS								
A	1.6	8.88	823.	0.	0.	157.1	310.1	157.1	4.187E-06	4.152E-06	4.152E-06
A	3.3	5.37	823.	0.	0.	157.1	310.1	157.1	1.954E-06	1.937E-06	1.937E-06
A	5.6	0.07	823.	0.	0.	157.1	310.1	157.1	1.172E-06	1.162E-06	1.162E-06
A	24.5	0.07	823.	0.	0.	157.1	310.1	157.1	2.664E-07	2.642E-07	2.642E-07
B	1.6	3.71	823.	0.	0.	118.1	88.8	118.1	1.945E-05	1.871E-05	1.871E-05
B	3.3	2.65	823.	0.	0.	118.1	88.8	118.1	9.075E-06	8.732E-06	8.732E-06
B	5.6	0.13	823.	0.	0.	118.1	88.8	118.1	5.445E-06	5.239E-06	5.239E-06
C	1.6	3.05	823.	0.	0.	89.7	51.2	89.7	4.443E-05	4.078E-05	4.078E-05
C	3.3	0.66	823.	0.	0.	89.7	51.2	89.7	2.073E-05	1.903E-05	1.903E-05
C	5.6	0.07	823.	0.	0.	89.7	51.2	89.7	1.244E-05	1.142E-05	1.142E-05
D	0.2	0.05	823.	0.	0.	63.2	27.1	124.7	4.217E-04	6.716E-04	4.217E-04
D	1.6	22.39	823.	0.	0.	63.2	27.1	124.7	6.024E-05	9.594E-05	6.024E-05
D	3.3	10.60	823.	0.	0.	63.2	27.1	90.6	3.869E-05	4.477E-05	3.869E-05
D	5.6	0.53	823.	0.	0.	63.2	27.1	66.1	3.183E-05	2.686E-05	2.686E-05
E	0.2	0.20	823.	0.	0.	44.9	18.7	132.5	5.778E-04	1.144E-03	5.778E-04
E	1.6	27.56	823.	0.	0.	44.9	18.7	132.5	8.255E-05	1.634E-04	8.255E-05
E	3.3	6.09	823.	0.	0.	44.9	18.7	79.9	6.389E-05	7.627E-05	6.389E-05
E	5.6	0.26	823.	0.	0.	44.9	18.7	48.4	6.329E-05	4.576E-05	4.576E-05
F	0.2	0.04	823.	0.	0.	31.0	12.0	121.7	9.797E-04	1.827E-03	9.797E-04
F	1.6	5.37	823.	0.	0.	31.0	12.0	121.7	1.400E-04	2.609E-04	1.400E-04
G	0.2	0.02	823.	0.	0.	21.4	7.7	125.7	1.477E-03	2.891E-03	1.477E-03
G	1.6	1.99	823.	0.	0.	21.4	7.7	125.7	2.109E-04	4.129E-04	2.109E-04
G	3.3	0.26	823.	0.	0.	21.4	7.7	54.9	2.255E-04	1.927E-04	1.927E-04

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1176 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 10.1 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.1-45.7 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

SSW SECTOR BOUNDARY DISTANCE = 823.0 METERS

LATERAL PLUME MEANDER/BUILDING WAKE CREDIT ALLOWED

AS A FUNCTION OF DOWNWIND DISTANCE.

MEANDER CREDIT IS FOR WINDSPEEDS LESS THAN 6 MPS.

BUILDING WAKE CREDIT ALLOWED: C= 0.5 A= 2584. D= 54.3

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.477E-03	9.797E-04	5.778E-04	4.217E-04	2.109E-04	1.927E-04	1.400E-04	8.255E-05	6.389E-05	6.024E-05
0.016	0.056	0.252	0.304	2.291	2.556	7.922	35.479	41.574	63.964
0.00056	0.00197	0.00891	0.01073	0.08087	0.09022	0.27959	1.25214	1.46722	2.25742
4.576E-05	4.078E-05	3.869E-05	2.686E-05	1.903E-05	1.871E-05	1.142E-05	8.732E-06	5.239E-06	4.152E-06
64.229	67.276	77.875	78.405	79.067	82.777	82.843	85.493	85.625	94.502
2.26677	2.37432	2.74837	2.76708	2.79046	2.92138	2.92371	3.01723	3.02191	3.33518
1.937E-06	1.162E-06	2.642E-07							
99.868	99.934	100.000							
3.52455	3.52689	3.52922							

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(2)=	2.255
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(3)=	2.746
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(4)=	3.332

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
2	1	-6.51806	-12.39852	-1.33817
2	2	-9.71722	-20.25639	-5.25984
2	3	-10.15982	-60.28563	-26.11320
2	4	-12.39204	NUMXQ(K)= 4	

Calculation No. PM-1055 Revision 0**Attachment J****Page 1177 of 1411**

3.838E-04	0.035	1.000
2.521E-04	0.106	3.000
2.047E-04	0.176	5.000
1.518E-04	0.353	10.000
1.262E-04	0.529	15.000
1.101E-04	0.706	20.000
9.879E-05	0.882	25.000
9.018E-05	1.059	30.000
8.335E-05	1.235	35.000
7.775E-05	1.412	40.000
7.305E-05	1.588	45.000
6.902E-05	1.765	50.000
6.552E-05	1.941	55.000
6.244E-05	2.118	60.000
5.813E-05	2.294	65.000
4.926E-05	2.470	70.000
4.216E-05	2.647	75.000
2.849E-05	2.823	80.000
1.422E-05	3.000	85.000
7.341E-06	3.176	90.000
1.296E-04	0.5	14.17

ANNUAL AVERAGE = 2.40E-06

K= 2 FIVEXQ(K)= 1.296E-04 FIVEPR(K)=14.167

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 01/28/03

Page 1178 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Ground Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 10.1 meters

DELTA-T HEIGHTS: 10.1-45.7 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE SW SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 10.0 METERS												CA=1292.SQ.METERS		
A	1.6	10.17	823.	0.	0.	157.1	310.1	157.1	4.187E-06	4.152E-06	4.152E-06			
A	3.3	2.24	823.	0.	0.	157.1	310.1	157.1	1.954E-06	1.937E-06	1.937E-06			
A	5.6	0.07	823.	0.	0.	157.1	310.1	157.1	1.172E-06	1.162E-06	1.162E-06			
A	24.5	0.07	823.	0.	0.	157.1	310.1	157.1	2.664E-07	2.642E-07	2.642E-07			
B	1.6	4.62	823.	0.	0.	118.1	88.8	118.1	1.945E-05	1.871E-05	1.871E-05			
B	3.3	0.79	823.	0.	0.	118.1	88.8	118.1	9.075E-06	8.732E-06	8.732E-06			
C	1.6	1.88	823.	0.	0.	89.7	51.2	89.7	4.443E-05	4.078E-05	4.078E-05			
C	3.3	0.22	823.	0.	0.	89.7	51.2	89.7	2.073E-05	1.903E-05	1.903E-05			
D	0.2	0.07	823.	0.	0.	63.2	27.1	124.7	4.217E-04	6.716E-04	4.217E-04			
D	1.6	31.54	823.	0.	0.	63.2	27.1	124.7	6.024E-05	9.594E-05	6.024E-05			
D	3.3	4.76	823.	0.	0.	63.2	27.1	90.6	3.869E-05	4.477E-05	3.869E-05			
E	0.2	0.21	823.	0.	0.	44.9	18.7	132.5	5.778E-04	1.144E-03	5.778E-04			
E	1.6	29.95	823.	0.	0.	44.9	18.7	132.5	8.255E-05	1.634E-04	8.255E-05			
E	3.3	5.48	823.	0.	0.	44.9	18.7	79.9	6.389E-05	7.627E-05	6.389E-05			
E	5.6	0.07	823.	0.	0.	44.9	18.7	48.4	6.329E-05	4.576E-05	4.576E-05			
F	0.2	0.04	823.	0.	0.	31.0	12.0	121.7	9.797E-04	1.827E-03	9.797E-04			
F	1.6	5.34	823.	0.	0.	31.0	12.0	121.7	1.400E-04	2.609E-04	1.400E-04			
F	3.3	0.36	823.	0.	0.	31.0	12.0	64.2	1.238E-04	1.218E-04	1.218E-04			
G	0.2	0.02	823.	0.	0.	21.4	7.7	125.7	1.477E-03	2.891E-03	1.477E-03			
G	1.6	2.09	823.	0.	0.	21.4	7.7	125.7	2.109E-04	4.129E-04	2.109E-04			

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1179 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 10.1 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.1-45.7 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

SW SECTOR BOUNDARY DISTANCE = 823.0 METERS

LATERAL PLUME MEANDER/BUILDING WAKE CREDIT ALLOWED

AS A FUNCTION OF DOWNWIND DISTANCE.

MEANDER CREDIT IS FOR WINDSPEEDS LESS THAN 6 MPS.

BUILDING WAKE CREDIT ALLOWED: C= 0.5 A= 2584. D= 54.3

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.477E-03	9.797E-04	5.778E-04	4.217E-04	2.109E-04	1.400E-04	1.218E-04	8.255E-05	6.389E-05	6.024E-05
0.017	0.056	0.270	0.343	2.436	7.776	8.136	38.084	43.568	75.104
0.00054	0.00183	0.00875	0.01111	0.07891	0.25191	0.26360	1.23381	1.41149	2.43314
4.576E-05	4.078E-05	3.869E-05	1.903E-05	1.871E-05	8.732E-06	4.152E-06	1.937E-06	1.162E-06	2.642E-07
75.176	77.052	81.815	82.031	86.650	87.444	97.619	99.856	99.928	100.000
2.43548	2.49626	2.65056	2.65757	2.80720	2.83291	3.16255	3.23503	3.23737	3.23970

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE

ORDERED X/Q-FREQUENCY VALUES, AND AS

PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 2.431

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 2.648

K I XQSAVE(K,I) XQINT(K,I) XQSLOP(K,I)

3 1 -6.51806 -12.31359 -1.31664

3 2 -9.71722 -33.49255 -12.05666

3 3 -10.15982 NUMXQ(K)= 3

4.006E-04 0.032 1.000

2.656E-04 0.097 3.000

2.167E-04 0.162 5.000

1.619E-04 0.324 10.000

1.352E-04 0.486 15.000

1.184E-04 0.648 20.000

1.065E-04	0.810	25.000
9.747E-05	0.972	30.000
9.028E-05	1.134	35.000
8.437E-05	1.296	40.000
7.940E-05	1.458	45.000
7.515E-05	1.620	50.000
7.144E-05	1.782	55.000
6.817E-05	1.944	60.000
6.526E-05	2.106	65.000
6.265E-05	2.268	70.000
6.028E-05	2.430	75.000
4.348E-05	2.592	80.000
1.335E-04	0.5	15.43

ANNUAL AVERAGE = 2.44E-06

K= 3 FIVEXQ(K)= 1.335E-04 FIVEPR(K)=15.434

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 01/28/03

Page 1181 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Ground Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 10.1 meters

DELTA-T HEIGHTS: 10.1 45.7 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE WSW SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS			METERS		METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 10.0 METERS												CA=1292.SQ.METERS		
A	1.6	11.29	823.	0.		0.	157.1	310.1	157.1	4.187E-06	4.152E-06	4.152E-06		
A	3.3	2.21	823.	0.		0.	157.1	310.1	157.1	1.954E-06	1.937E-06	1.937E-06		
B	1.6	5.29	823.	0.		0.	118.1	88.8	118.1	1.945E-05	1.871E-05	1.871E-05		
B	3.3	1.18	823.	0.		0.	118.1	88.8	118.1	9.075E-06	8.732E-06	8.732E-06		
C	1.6	3.79	823.	0.		0.	89.7	51.2	89.7	4.443E-05	4.078E-05	4.078E-05		
C	3.3	0.63	823.	0.		0.	89.7	51.2	89.7	2.073E-05	1.903E-05	1.903E-05		
D	0.2	0.06	823.	0.		0.	63.2	27.1	124.7	4.217E-04	6.716E-04	4.217E-04		
D	1.6	25.11	823.	0.		0.	63.2	27.1	124.7	6.024E-05	9.594E-05	6.024E-05		
D	3.3	2.76	823.	0.		0.	63.2	27.1	90.6	3.869E-05	4.477E-05	3.869E-05		
E	0.2	0.22	823.	0.		0.	44.9	18.7	132.5	5.778E-04	1.144E-03	5.778E-04		
E	1.6	30.24	823.	0.		0.	44.9	18.7	132.5	8.255E-05	1.634E-04	8.255E-05		
E	3.3	5.84	823.	0.		0.	44.9	18.7	79.9	6.389E-05	7.627E-05	6.389E-05		
F	0.2	0.05	823.	0.		0.	31.0	12.0	121.7	9.797E-04	1.827E-03	9.797E-04		
F	1.6	7.26	823.	0.		0.	31.0	12.0	121.7	1.400E-04	2.609E-04	1.400E-04		
F	3.3	0.16	823.	0.		0.	31.0	12.0	64.2	1.238E-04	1.218E-04	1.218E-04		
G	0.2	0.03	823.	0.		0.	21.4	7.7	125.7	1.477E-03	2.891E-03	1.477E-03		
G	1.6	3.87	823.	0.		0.	21.4	7.7	125.7	2.109E-04	4.129E-04	2.109E-04		

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 01/28/03

Page 1182 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Ground Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 10.1 meters

DELTA-T HEIGHTS: 10.1-45.7 meters

SITE EXCLUSION BOUNDARY CALCULATIONS:

WSW SECTOR BOUNDARY DISTANCE = 823.0 METERS

LATERAL PLUME MEANDER/BUILDING WAKE CREDIT ALLOWED

AS A FUNCTION OF DOWNWIND DISTANCE.

MEANDER CREDIT IS FOR WINDSPEEDS LESS THAN 6 MPS.

BUILDING WAKE CREDIT ALLOWED: C= 0.5 A= 2584. D= 54.3

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.477E-03	9.797E-04	5.778E-04	4.217E-04	2.109E-04	1.400E-04	1.218E-04	8.255E-05	6.389E-05	6.024E-05
0.031	0.085	0.301	0.359	4.227	11.491	11.649	41.889	47.732	72.839
0.00091	0.00251	0.00890	0.01062	0.12517	0.34026	0.34493	1.24033	1.41334	2.15678
4.078E-05	3.869E-05	1.903E-05	1.871E-05	8.732E-06	4.152E-06	1.937E-06			
76.629	79.393	80.024	85.314	86.499	97.789	100.000			
2.26900	2.35082	2.36953	2.52616	2.56123	2.89555	2.96101			

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE

ORDERED X/Q-FREQUENCY VALUES, AND AS

PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 1.239

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 2.155

K I XQSAVE(K,I) XQINT(K,I) XQSLOP(K,I)

4 1 -6.51806 -12.57305 -1.41253

4 2 -9.40215 -12.58798 -1.41917

4 3 -9.71722 NUMXQ(K)= 3

4.436E-04 0.030 1.000

2.864E-04 0.089 3.000

2.306E-04 0.148 5.000

1.691E-04 0.296 10.000

1.396E-04 0.444 15.000

1.213E-04 0.592 20.000

1.084E-04	0.740	25.000
9.863E-05	0.888	30.000
9.093E-05	1.036	35.000
8.464E-05	1.184	40.000
7.936E-05	1.332	45.000
7.483E-05	1.481	50.000
7.091E-05	1.629	55.000
6.747E-05	1.777	60.000
6.441E-05	1.925	65.000
6.167E-05	2.073	70.000
1.318E-04	0.5	16.89

ANNUAL AVERAGE = 2.31E-06

K= 4 FIVEXQ(K)= 1.318E-04 FIVEPR(K)=16.886

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1184 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 10.1 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.1-45.7 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE W SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 10.0 METERS												CA=1292.SQ.METERS		
A	1.6	6.63	823.	0.	0.	157.1	310.1	157.1	4.187E-06	4.152E-06	4.152E-06			
A	3.3	2.86	823.	0.	0.	157.1	310.1	157.1	1.954E-06	1.937E-06	1.937E-06			
A	24.5	0.13	823.	0.	0.	157.1	310.1	157.1	2.664E-07	2.642E-07	2.642E-07			
B	1.6	3.97	823.	0.	0.	118.1	88.8	118.1	1.945E-05	1.871E-05	1.871E-05			
B	3.3	0.78	823.	0.	0.	118.1	88.8	118.1	9.075E-06	8.732E-06	8.732E-06			
B	5.6	0.07	823.	0.	0.	118.1	88.8	118.1	5.445E-06	5.239E-06	5.239E-06			
C	1.6	2.28	823.	0.	0.	89.7	51.2	89.7	4.443E-05	4.078E-05	4.078E-05			
C	3.3	0.59	823.	0.	0.	89.7	51.2	89.7	2.073E-05	1.903E-05	1.903E-05			
C	5.6	0.07	823.	0.	0.	89.7	51.2	89.7	1.244E-05	1.142E-05	1.142E-05			
D	0.2	0.04	823.	0.	0.	63.2	27.1	124.7	4.217E-04	6.716E-04	4.217E-04			
D	1.6	19.25	823.	0.	0.	63.2	27.1	124.7	6.024E-05	9.594E-05	6.024E-05			
D	3.3	4.23	823.	0.	0.	63.2	27.1	90.6	3.869E-05	4.477E-05	3.869E-05			
D	5.6	0.13	823.	0.	0.	63.2	27.1	66.1	3.183E-05	2.686E-05	2.686E-05			
E	0.2	0.24	823.	0.	0.	44.9	18.7	132.5	5.778E-04	1.144E-03	5.778E-04			
E	1.6	33.50	823.	0.	0.	44.9	18.7	132.5	8.255E-05	1.634E-04	8.255E-05			
E	3.3	6.89	823.	0.	0.	44.9	18.7	79.9	6.389E-05	7.627E-05	6.389E-05			
E	5.6	0.39	823.	0.	0.	44.9	18.7	48.4	6.329E-05	4.576E-05	4.576E-05			
F	0.2	0.09	823.	0.	0.	31.0	12.0	121.7	9.797E-04	1.827E-03	9.797E-04			
F	1.6	11.71	823.	0.	0.	31.0	12.0	121.7	1.400E-04	2.609E-04	1.400E-04			
F	3.3	0.20	823.	0.	0.	31.0	12.0	64.2	1.238E-04	1.218E-04	1.218E-04			
G	0.2	0.05	823.	0.	0.	21.4	7.7	125.7	1.477E-03	2.891E-03	1.477E-03			
G	1.6	5.72	823.	0.	0.	21.4	7.7	125.7	2.109E-04	4.129E-04	2.109E-04			
G	3.3	0.20	823.	0.	0.	21.4	7.7	54.9	2.255E-04	1.927E-04	1.927E-04			

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1185 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 10.1 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.1 45.7 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

W SECTOR BOUNDARY DISTANCE = 823.0 METERS

LATERAL PLUME MEANDER/BUILDING WAKE CREDIT ALLOWED

AS A FUNCTION OF DOWNWIND DISTANCE.

MEANDER CREDIT IS FOR WINDSPEEDS LESS THAN 6 MPS.

BUILDING WAKE CREDIT ALLOWED: C= 0.5 A= 2584. D= 54.3

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.477E-03	9.797E-04	5.778E-04	4.217E-04	2.109E-04	1.927E-04	1.400E-04	1.218E-04	8.255E-05	6.389E-05
0.045	0.133	0.372	0.416	6.140	6.335	18.043	18.238	51.737	58.631
0.00163	0.00477	0.01336	0.01496	0.22069	0.22770	0.64852	0.65553	1.85954	2.10735
6.024E-05	4.576E-05	4.078E-05	3.869E-05	2.686E-05	1.903E-05	1.871E-05	1.142E-05	8.732E-06	5.239E-06
77.885	78.275	80.552	84.779	84.910	85.495	89.463	89.528	90.308	90.373
2.79936	2.81339	2.89521	3.04717	3.05185	3.07289	3.21550	3.21784	3.24589	3.24823
4.152E-06	1.937E-06	2.642E-07							
97.008	99.870	100.000							
3.48669	3.58956	3.59423							

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(2)=	1.858
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(3)=	2.797
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(4)=	3.044
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(5)=	3.213

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
5	1	-6.51806	-12.30507	-1.39289
5	2	-9.40215	-13.20774	-1.82600
5	3	-9.71722	-32.43827	-11.88613

Calculation No. PM-1055 Revision 0

Attachment J

Page 1186 of 1411

5 4 -10.15982 -67.17355 -30.41830

5 5 -10.88636 NUMXQ(K) = 5

5.036E-04	0.036	1.000
3.250E-04	0.108	3.000
2.615E-04	0.180	5.000
1.915E-04	0.359	10.000
1.580E-04	0.539	15.000
1.371E-04	0.719	20.000
1.224E-04	0.899	25.000
1.113E-04	1.078	30.000
1.025E-04	1.258	35.000
9.530E-05	1.438	40.000
8.929E-05	1.617	45.000
8.416E-05	1.797	50.000
7.885E-05	1.977	55.000
7.381E-05	2.157	60.000
6.941E-05	2.336	65.000
6.553E-05	2.516	70.000
6.207E-05	2.696	75.000
5.241E-05	2.875	80.000
3.737E-05	3.055	85.000

1.638E-04	0.5	13.91
-----------	-----	-------

ANNUAL AVERAGE = 3.11E-06

K= 5 FIVEXQ(K) = 1.638E-04 FIVEPR(K) = 13.911

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1187 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 10.1 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.1-45.7 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE WNW SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 10.0 METERS												CA=1292.SQ.METERS		
A	1.6	4.94	823.	0.	0.	157.1	310.1	157.1	4.187E-06	4.152E-06	4.152E-06			
A	3.3	6.06	823.	0.	0.	157.1	310.1	157.1	1.954E-06	1.937E-06	1.937E-06			
A	5.6	0.50	823.	0.	0.	157.1	310.1	157.1	1.172E-06	1.162E-06	1.162E-06			
B	1.6	2.75	823.	0.	0.	118.1	88.8	118.1	1.945E-05	1.871E-05	1.871E-05			
B	3.3	1.94	823.	0.	0.	118.1	88.8	118.1	9.075E-06	8.732E-06	8.732E-06			
B	5.6	0.38	823.	0.	0.	118.1	88.8	118.1	5.445E-06	5.239E-06	5.239E-06			
C	1.6	1.69	823.	0.	0.	89.7	51.2	89.7	4.443E-05	4.078E-05	4.078E-05			
C	3.3	0.63	823.	0.	0.	89.7	51.2	89.7	2.073E-05	1.903E-05	1.903E-05			
C	5.6	0.06	823.	0.	0.	89.7	51.2	89.7	1.244E-05	1.142E-05	1.142E-05			
C	8.2	0.06	823.	0.	0.	89.7	51.2	89.7	8.406E-06	7.714E-06	7.714E-06			
D	0.2	0.03	823.	0.	0.	63.2	27.1	124.7	4.217E-04	6.716E-04	4.217E-04			
D	1.6	10.94	823.	0.	0.	63.2	27.1	124.7	6.024E-05	9.594E-05	6.024E-05			
D	3.3	9.06	823.	0.	0.	63.2	27.1	90.6	3.869E-05	4.477E-05	3.869E-05			
D	5.6	0.50	823.	0.	0.	63.2	27.1	66.1	3.183E-05	2.686E-05	2.686E-05			
E	0.2	0.21	823.	0.	0.	44.9	18.7	132.5	5.778E-04	1.144E-03	5.778E-04			
E	1.6	29.38	823.	0.	0.	44.9	18.7	132.5	8.255E-05	1.634E-04	8.255E-05			
E	3.3	11.06	823.	0.	0.	44.9	18.7	79.9	6.389E-05	7.627E-05	6.389E-05			
E	5.6	1.06	823.	0.	0.	44.9	18.7	48.4	6.329E-05	4.576E-05	4.576E-05			
F	0.2	0.10	823.	0.	0.	31.0	12.0	121.7	9.797E-04	1.827E-03	9.797E-04			
F	1.6	14.00	823.	0.	0.	31.0	12.0	121.7	1.400E-04	2.609E-04	1.400E-04			
F	3.3	0.88	823.	0.	0.	31.0	12.0	64.2	1.238E-04	1.218E-04	1.218E-04			
G	0.2	0.03	823.	0.	0.	21.4	7.7	125.7	1.477E-03	2.891E-03	1.477E-03			
G	1.6	3.44	823.	0.	0.	21.4	7.7	125.7	2.109E-04	4.129E-04	2.109E-04			
G	3.3	0.31	823.	0.	0.	21.4	7.7	54.9	2.255E-04	1.927E-04	1.927E-04			

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1188 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 10.1 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.1-45.7 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

WNW SECTOR BOUNDARY DISTANCE = 823.0 METERS

LATERAL PLUME MEANDER/BUILDING WAKE CREDIT ALLOWED

AS A FUNCTION OF DOWNWIND DISTANCE.

MEANDER CREDIT IS FOR WINDSPEEDS LESS THAN 6 MPS.

BUILDING WAKE CREDIT ALLOWED: C= 0.5 A= 2584. D= 54.3

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.477E-03	9.797E-04	5.778E-04	4.217E-04	2.109E-04	1.927E-04	1.400E-04	1.218E-04	8.255E-05	6.389E-05
0.027	0.132	0.341	0.367	3.804	4.117	18.118	18.993	48.371	59.434
0.00102	0.00493	0.01277	0.01371	0.14230	0.15398	0.67767	0.71040	1.80920	2.22300
6.024E-05	4.576E-05	4.078E-05	3.869E-05	2.686E-05	1.903E-05	1.871E-05	1.142E-05	8.732E-06	7.714E-06
70.373	71.435	73.123	82.186	82.686	83.311	86.061	86.124	88.062	88.124
2.63213	2.67187	2.73499	3.07398	3.09269	3.11606	3.21893	3.22127	3.29374	3.29608
5.239E-06	4.152E-06	1.937E-06	1.162E-06						
88.499	93.437	99.500	100.000						
3.31011	3.49480	3.72157	3.74028						

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(2)=	0.005
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(3)=	0.677
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(4)=	1.807
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(5)=	2.630
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(6)=	3.071
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(7)=	3.718

K I XQSAVE(K,I) XQINT(K,I) XQSLOP(K,I)

6 1 -6.51806 -11.28245 -1.11817

Calculation No. PM-1055 Revision 0

Attachment J

Page 1189 of 1411

6 2 -6.92826 -12.24676 -1.36580
 6 3 -8.87417 -12.36000 -1.41166
 6 4 -9.40215 -13.60631 -2.00648
 6 5 -9.71722 -22.36591 -6.52576
 6 6 -10.15982 -75.21242 -34.77917

6 7 -13.15417 NUMXQ(K) = 7
 4.799E-04 0.037 1.000
 3.120E-04 0.112 3.000
 2.519E-04 0.187 5.000
 1.854E-04 0.374 10.000
 1.533E-04 0.561 15.000
 1.331E-04 0.748 20.000
 1.186E-04 0.935 25.000
 1.076E-04 1.122 30.000
 9.898E-05 1.309 35.000
 9.193E-05 1.496 40.000
 8.602E-05 1.683 45.000
 8.034E-05 1.870 50.000
 7.425E-05 2.057 55.000
 6.903E-05 2.244 60.000
 6.449E-05 2.431 65.000
 6.051E-05 2.618 70.000
 5.030E-05 2.805 75.000
 4.182E-05 2.992 80.000
 2.300E-05 3.179 85.000
 9.448E-06 3.366 90.000

1.620E-04 0.5 13.37

ANNUAL AVERAGE = 2.86E-06

K= 6 FIVEXQ(K) = 1.620E-04 FIVEPR(K) = 13.368

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1190 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Ground Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 10.1 meters

DELTA-T HEIGHTS: 10.1-45.7 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE NW SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 10.0 METERS												CA=1292.SQ.METERS		
A	1.6	2.38	823.	0.	0.	157.1	310.1	157.1	4.187E-06	4.152E-06	4.152E-06			
A	3.3	5.19	823.	0.	0.	157.1	310.1	157.1	1.954E-06	1.937E-06	1.937E-06			
A	5.6	0.29	823.	0.	0.	157.1	310.1	157.1	1.172E-06	1.162E-06	1.162E-06			
B	1.6	1.10	823.	0.	0.	118.1	88.8	118.1	1.945E-05	1.871E-05	1.871E-05			
B	3.3	2.67	823.	0.	0.	118.1	88.8	118.1	9.075E-06	8.732E-06	8.732E-06			
B	5.6	0.43	823.	0.	0.	118.1	88.8	118.1	5.445E-06	5.239E-06	5.239E-06			
B	24.5	0.05	823.	0.	0.	118.1	88.8	118.1	1.237E-06	1.191E-06	1.191E-06			
C	1.6	0.52	823.	0.	0.	89.7	51.2	89.7	4.443E-05	4.078E-05	4.078E-05			
C	3.3	1.57	823.	0.	0.	89.7	51.2	89.7	2.073E-05	1.903E-05	1.903E-05			
C	5.6	0.24	823.	0.	0.	89.7	51.2	89.7	1.244E-05	1.142E-05	1.142E-05			
D	0.2	0.02	823.	0.	0.	63.2	27.1	124.7	4.217E-04	6.716E-04	4.217E-04			
D	1.6	7.33	823.	0.	0.	63.2	27.1	124.7	6.024E-05	9.594E-05	6.024E-05			
D	3.3	18.14	823.	0.	0.	63.2	27.1	90.6	3.869E-05	4.477E-05	3.869E-05			
D	5.6	3.67	823.	0.	0.	63.2	27.1	66.1	3.183E-05	2.686E-05	2.686E-05			
D	8.2	0.10	823.	0.	0.	63.2	27.1	63.2	2.250E-05	1.815E-05	1.815E-05			
E	0.2	0.18	823.	0.	0.	44.9	18.7	132.5	5.778E-04	1.144E-03	5.778E-04			
E	1.6	25.85	823.	0.	0.	44.9	18.7	132.5	8.255E-05	1.634E-04	8.255E-05			
E	3.3	18.81	823.	0.	0.	44.9	18.7	79.9	6.389E-05	7.627E-05	6.389E-05			
E	5.6	2.48	823.	0.	0.	44.9	18.7	48.4	6.329E-05	4.576E-05	4.576E-05			
E	8.2	0.05	823.	0.	0.	44.9	18.7	44.9	4.606E-05	3.092E-05	3.092E-05			
F	0.2	0.05	823.	0.	0.	31.0	12.0	121.7	9.797E-04	1.827E-03	9.797E-04			
F	1.6	6.14	823.	0.	0.	31.0	12.0	121.7	1.400E-04	2.609E-04	1.400E-04			
F	3.3	1.14	823.	0.	0.	31.0	12.0	64.2	1.238E-04	1.218E-04	1.218E-04			
G	0.2	0.01	823.	0.	0.	21.4	7.7	125.7	1.477E-03	2.891E-03	1.477E-03			
G	1.6	1.52	823.	0.	0.	21.4	7.7	125.7	2.109E-04	4.129E-04	2.109E-04			
G	3.3	0.10	823.	0.	0.	21.4	7.7	54.9	2.255E-04	1.927E-04	1.927E-04			

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1191 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Ground Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 10.1 meters

DELTA-T HEIGHTS: 10.1 45.7 meters

SITE EXCLUSION BOUNDARY CALCULATIONS:

NW SECTOR BOUNDARY DISTANCE = 823.0 METERS

LATERAL PLUME MEANDER/BUILDING WAKE CREDIT ALLOWED

AS A FUNCTION OF DOWNWIND DISTANCE.

MEANDER CREDIT IS FOR WINDSPEEDS LESS THAN 6 MPS.

BUILDING WAKE CREDIT ALLOWED: C= 0.5 A= 2584. D= 54.3

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.477E-03	9.797E-04	5.778E-04	4.217E-04	2.109E-04	1.927E-04	1.400E-04	1.218E-04	8.255E-05	6.389E-05
0.012	0.058	0.242	0.259	1.783	1.878	8.020	9.162	35.014	53.819
0.00059	0.00285	0.01190	0.01273	0.08754	0.09222	0.39380	0.44991	1.71938	2.64283
6.024E-05	4.576E-05	4.078E-05	3.869E-05	3.092E-05	2.686E-05	1.903E-05	1.871E-05	1.815E-05	1.142E-05
61.151	63.627	64.150	82.289	82.337	86.003	87.574	88.669	88.764	89.002
3.00287	3.12443	3.15015	4.04088	4.04322	4.22323	4.30038	4.35415	4.35883	4.37052
8.732E-06	5.239E-06	4.152E-06	1.937E-06	1.191E-06	1.162E-06				
91.668	92.097	94.477	99.667	99.714	100.000				
4.50144	4.52248	4.63937	4.89420	4.89654	4.91057				

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(2)=	0.003
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(3)=	1.717
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(4)=	3.000
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(5)=	4.037
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(6)=	4.220

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
7	1	-6.51806	-11.57853	-1.15526
7	2	-6.92826	-12.14371	-1.29567

Calculation No. PM-1055 Revision 0

Attachment J

Page 1192 of 1411

7 3	-9.40215	-12.23725	-1.33987
7 4	-9.71722	-15.90901	-3.29212
7 5	-10.15982	-41.06927	-17.69945
7 6	-10.52476	NUMXQ(K) = 6	
3.807E-04	0.049	1.000	
2.508E-04	0.147	3.000	
2.037E-04	0.246	5.000	
1.511E-04	0.491	10.000	
1.255E-04	0.737	15.000	
1.094E-04	0.982	20.000	
9.805E-05	1.228	25.000	
8.942E-05	1.473	30.000	
8.256E-05	1.719	35.000	
7.675E-05	1.964	40.000	
7.188E-05	2.210	45.000	
6.771E-05	2.455	50.000	
6.410E-05	2.701	55.000	
6.092E-05	2.946	60.000	
5.510E-05	3.192	65.000	
4.939E-05	3.437	70.000	
4.455E-05	3.683	75.000	
4.040E-05	3.928	80.000	
2.961E-05	4.174	85.000	
1.499E-04	0.5	10.18	

ANNUAL AVERAGE = 2.93E-06

K= 7 FIVEXQ(K) = 1.499E-04 FIVEPR(K) = 10.182

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 01/28/03

Page 1193 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Ground Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 10.1 meters

DELTA-T HEIGHTS: 10.1-45.7 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE NNW SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)	MEANDER	BLDG	WAKE	USED
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG	WAKE	USED	
AT	10.0 METERS											CA=1292.SQ.METERS				
A	1.6	1.13	823.	0.	0.	157.1	310.1	157.1	4.187E-06	4.152E-06	4.152E-06					
A	3.3	2.78	823.	0.	0.	157.1	310.1	157.1	1.954E-06	1.937E-06	1.937E-06					
A	5.6	1.02	823.	0.	0.	157.1	310.1	157.1	1.172E-06	1.162E-06	1.162E-06					
A	8.2	0.18	823.	0.	0.	157.1	310.1	157.1	7.921E-07	7.854E-07	7.854E-07					
B	1.6	0.46	823.	0.	0.	118.1	88.8	118.1	1.945E-05	1.871E-05	1.871E-05					
B	3.3	2.54	823.	0.	0.	118.1	88.8	118.1	9.075E-06	8.732E-06	8.732E-06					
B	5.6	1.20	823.	0.	0.	118.1	88.8	118.1	5.445E-06	5.239E-06	5.239E-06					
B	8.2	0.25	823.	0.	0.	118.1	88.8	118.1	3.679E-06	3.540E-06	3.540E-06					
C	1.6	0.18	823.	0.	0.	89.7	51.2	89.7	4.443E-05	4.078E-05	4.078E-05					
C	3.3	1.87	823.	0.	0.	89.7	51.2	89.7	2.073E-05	1.903E-05	1.903E-05					
C	5.6	0.60	823.	0.	0.	89.7	51.2	89.7	1.244E-05	1.142E-05	1.142E-05					
C	8.2	0.11	823.	0.	0.	89.7	51.2	89.7	8.406E-06	7.714E-06	7.714E-06					
C	10.7	0.04	823.	0.	0.	89.7	51.2	89.7	6.479E-06	5.947E-06	5.947E-06					
D	0.2	0.02	823.	0.	0.	63.2	27.1	124.7	4.217E-04	6.716E-04	4.217E-04					
D	1.6	8.07	823.	0.	0.	63.2	27.1	124.7	6.024E-05	9.594E-05	6.024E-05					
D	3.3	20.87	823.	0.	0.	63.2	27.1	90.6	3.869E-05	4.477E-05	3.869E-05					
D	5.6	5.29	823.	0.	0.	63.2	27.1	66.1	3.183E-05	2.686E-05	2.686E-05					
D	8.2	0.42	823.	0.	0.	63.2	27.1	63.2	2.250E-05	1.815E-05	1.815E-05					
E	0.2	0.15	823.	0.	0.	44.9	18.7	132.5	5.778E-04	1.144E-03	5.778E-04					
E	1.6	21.15	823.	0.	0.	44.9	18.7	132.5	8.255E-05	1.634E-04	8.255E-05					
E	3.3	23.87	823.	0.	0.	44.9	18.7	79.9	6.389E-05	7.627E-05	6.389E-05					
E	5.6	2.50	823.	0.	0.	44.9	18.7	48.4	6.329E-05	4.576E-05	4.576E-05					
E	8.2	0.21	823.	0.	0.	44.9	18.7	44.9	4.606E-05	3.092E-05	3.092E-05					
F	0.2	0.03	823.	0.	0.	31.0	12.0	121.7	9.797E-04	1.827E-03	9.797E-04					
F	1.6	3.49	823.	0.	0.	31.0	12.0	121.7	1.400E-04	2.609E-04	1.400E-04					
F	3.3	0.63	823.	0.	0.	31.0	12.0	64.2	1.238E-04	1.218E-04	1.218E-04					
G	0.2	0.01	823.	0.	0.	21.4	7.7	125.7	1.477E-03	2.891E-03	1.477E-03					
G	1.6	0.95	823.	0.	0.	21.4	7.7	125.7	2.109E-04	4.129E-04	2.109E-04					

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1194 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 10.1 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.1-45.7 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

NNW SECTOR BOUNDARY DISTANCE = 823.0 METERS

LATERAL PLUME MEANDER/BUILDING WAKE CREDIT ALLOWED

AS A FUNCTION OF DOWNWIND DISTANCE.

MEANDER CREDIT IS FOR WINDSPEEDS LESS THAN 6 MPS.

BUILDING WAKE CREDIT ALLOWED: C= 0.5 A= 2584. D= 54.3

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.477E-03	9.797E-04	5.778E-04	4.217E-04	2.109E-04	1.400E-04	1.218E-04	8.255E-05	6.389E-05	6.024E-05
0.008	0.034	0.184	0.203	1.155	4.645	5.279	26.430	50.295	58.368
0.00050	0.00223	0.01224	0.01347	0.07659	0.30804	0.35012	1.75284	3.33558	3.87095
4.576E-05	4.078E-05	3.869E-05	3.092E-05	2.686E-05	1.903E-05	1.871E-05	1.815E-05	1.142E-05	8.732E-06
60.871	61.047	81.916	82.128	87.415	89.284	89.742	90.165	90.764	93.302
4.03694	4.04863	5.43265	5.44668	5.79736	5.92126	5.95166	5.97971	6.01945	6.18778
7.714E-06	5.947E-06	5.239E-06	4.152E-06	3.540E-06	1.937E-06	1.162E-06	7.854E-07		
93.408	93.443	94.642	95.770	96.017	98.801	99.824	100.000		
6.19479	6.19713	6.27662	6.35143	6.36780	6.55249	6.62029	6.63198		

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(2) =	3.868
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(3) =	5.429
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(4) =	5.794
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(5) =	5.976

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
8	1	-6.51806	-11.84871	-1.20678
8	2	-9.71722	-14.55362	-2.73822
8	3	-10.15982	-28.30371	-11.30728

Calculation No. PM-1055 Revision 0

Attachment J

Page 1195 of 1411

8 4 -10.52476 -50.18600 -25.22426

8 5 -10.91680 NUMXQ(K) = 5

3.442E-04	0.066	1.000
2.310E-04	0.199	3.000
1.893E-04	0.332	5.000
1.420E-04	0.663	10.000
1.188E-04	0.995	15.000
1.040E-04	1.326	20.000
9.350E-05	1.658	25.000
8.549E-05	1.990	30.000
7.910E-05	2.321	35.000
7.383E-05	2.653	40.000
6.939E-05	2.984	45.000
6.558E-05	3.316	50.000
6.225E-05	3.648	55.000
5.817E-05	3.979	60.000
5.251E-05	4.311	65.000
4.769E-05	4.642	70.000
4.354E-05	4.974	75.000
3.995E-05	5.306	80.000
3.146E-05	5.637	85.000
1.858E-05	5.969	90.000
1.601E-04	0.5	7.54

ANNUAL AVERAGE = 3.49E-06

K= 8 FIVEXQ(K) = 1.601E-04 FIVEPR(K) = 7.539

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1196 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 10.1 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.1-45.7 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE N SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN HT	EFF PLUME HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 10.0 METERS			CA=1292.SQ.METERS								
A	1.6	0.23	823.	0.	0.	157.1	310.1	157.1	4.187E-06	4.152E-06	4.152E-06
A	3.3	2.01	823.	0.	0.	157.1	310.1	157.1	1.954E-06	1.937E-06	1.937E-06
A	5.6	2.77	823.	0.	0.	157.1	310.1	157.1	1.172E-06	1.162E-06	1.162E-06
A	8.2	0.37	823.	0.	0.	157.1	310.1	157.1	7.921E-07	7.854E-07	7.854E-07
B	1.6	0.34	823.	0.	0.	118.1	88.8	118.1	1.945E-05	1.871E-05	1.871E-05
B	3.3	2.57	823.	0.	0.	118.1	88.8	118.1	9.075E-06	8.732E-06	8.732E-06
B	5.6	4.10	823.	0.	0.	118.1	88.8	118.1	5.445E-06	5.239E-06	5.239E-06
B	8.2	0.62	823.	0.	0.	118.1	88.8	118.1	3.679E-06	3.540E-06	3.540E-06
C	1.6	0.17	823.	0.	0.	89.7	51.2	89.7	4.443E-05	4.078E-05	4.078E-05
C	3.3	1.87	823.	0.	0.	89.7	51.2	89.7	2.073E-05	1.903E-05	1.903E-05
C	5.6	2.12	823.	0.	0.	89.7	51.2	89.7	1.244E-05	1.142E-05	1.142E-05
C	8.2	0.23	823.	0.	0.	89.7	51.2	89.7	8.406E-06	7.714E-06	7.714E-06
D	0.2	0.01	823.	0.	0.	63.2	27.1	124.7	4.217E-04	6.716E-04	4.217E-04
D	1.6	5.00	823.	0.	0.	63.2	27.1	124.7	6.024E-05	9.594E-05	6.024E-05
D	3.3	15.38	823.	0.	0.	63.2	27.1	90.6	3.869E-05	4.477E-05	3.869E-05
D	5.6	9.19	823.	0.	0.	63.2	27.1	66.1	3.183E-05	2.686E-05	2.686E-05
D	8.2	1.27	823.	0.	0.	63.2	27.1	63.2	2.250E-05	1.815E-05	1.815E-05
E	0.2	0.13	823.	0.	0.	44.9	18.7	132.5	5.778E-04	1.144E-03	5.778E-04
E	1.6	17.92	823.	0.	0.	44.9	18.7	132.5	8.255E-05	1.634E-04	8.255E-05
E	3.3	21.79	823.	0.	0.	44.9	18.7	79.9	6.389E-05	7.627E-05	6.389E-05
E	5.6	5.71	823.	0.	0.	44.9	18.7	48.4	6.329E-05	4.576E-05	4.576E-05
E	8.2	0.71	823.	0.	0.	44.9	18.7	44.9	4.606E-05	3.092E-05	3.092E-05
E	10.7	0.03	823.	0.	0.	44.9	18.7	44.9	3.551E-05	2.383E-05	2.383E-05
F	0.2	0.03	823.	0.	0.	31.0	12.0	121.7	9.797E-04	1.827E-03	9.797E-04
F	1.6	3.42	823.	0.	0.	31.0	12.0	121.7	1.400E-04	2.609E-04	1.400E-04
F	3.3	1.38	823.	0.	0.	31.0	12.0	64.2	1.238E-04	1.218E-04	1.218E-04
G	0.2	0.01	823.	0.	0.	21.4	7.7	125.7	1.477E-03	2.891E-03	1.477E-03
G	1.6	0.65	823.	0.	0.	21.4	7.7	125.7	2.109E-04	4.129E-04	2.109E-04

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1197 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 10.1 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.1-45.7 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

N SECTOR BOUNDARY DISTANCE = 823.0 METERS

LATERAL PLUME MEANDER/BUILDING WAKE CREDIT ALLOWED

AS A FUNCTION OF DOWNWIND DISTANCE.

MEANDER CREDIT IS FOR WINDSPEEDS LESS THAN 6 MPS.

BUILDING WAKE CREDIT ALLOWED: C= 0.5 A= 2584. D= 54.3

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.477E-03	9.797E-04	5.778E-04	4.217E-04	2.109E-04	1.400E-04	1.218E-04	8.255E-05	6.389E-05	6.024E-05
0.005	0.031	0.159	0.170	0.820	4.240	5.625	23.545	45.337	50.339
0.00043	0.00254	0.01311	0.01407	0.06784	0.35072	0.46528	1.94748	3.74998	4.16378
4.576E-05	4.078E-05	3.869E-05	3.092E-05	2.686E-05	2.383E-05	1.903E-05	1.871E-05	1.815E-05	1.142E-05
56.049	56.218	71.594	72.301	81.487	81.515	83.381	83.720	84.992	87.111
4.63603	4.65006	5.92186	5.98031	6.74012	6.74245	6.89675	6.92481	7.03001	7.20535
8.732E-06	7.714E-06	5.239E-06	4.152E-06	3.540E-06	1.937E-06	1.162E-06	7.854E-07		
89.684	89.910	94.008	94.234	94.856	96.863	99.633	100.000		
7.41810	7.43680	7.77579	7.79449	7.84593	8.01192	8.24103	8.27142		

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(2)=	0.003
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(3)=	3.747
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(4)=	4.160
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(5)=	5.918
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(6)=	6.736
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(7)=	7.026

K I XQSAVE(K,I) XQINT(K,I) XQSLOP(K,I)

9 1 -6.51806 -11.08605 -1.02611

Calculation No. PM-1055 Revision 0

Attachment J

Page 1198 of 1411

9 2 -6.92826 -11.79912 -1.20208
 9 3 -9.65837 -11.81984 -1.21372
 9 4 -9.71722 -14.20946 -2.59311
 9 5 -10.15982 -18.79955 -5.53229
 9 6 -10.52476 -37.32388 -17.91712

9 7 -10.91680 NUMXQ(K) = 7
 3.299E-04 0.083 1.000
 2.201E-04 0.248 3.000
 1.797E-04 0.414 5.000
 1.340E-04 0.827 10.000
 1.116E-04 1.241 15.000
 9.738E-05 1.654 20.000
 8.728E-05 2.068 25.000
 7.958E-05 2.481 30.000
 7.345E-05 2.895 35.000
 6.840E-05 3.309 40.000
 6.415E-05 3.722 45.000
 6.047E-05 4.136 50.000
 5.405E-05 4.549 55.000
 4.850E-05 4.963 60.000
 4.383E-05 5.376 65.000
 3.984E-05 5.790 70.000
 3.398E-05 6.204 75.000
 2.831E-05 6.617 80.000

1.662E-04 0.5 6.04

ANNUAL AVERAGE = 3.79E-06

K= 9 FIVEXQ(K) = 1.662E-04 FIVEPR(K) = 6.045

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 01/28/03

Page 1199 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Ground Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 10.1 meters

DELTA-T HEIGHTS: 10.1 45.7 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE NNE SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 10.0 METERS												CA=1292.SQ.METERS		
A	1.6	0.17	823.	0.	0.	157.1	310.1	157.1	4.187E-06	4.152E-06	4.152E-06			
A	3.3	2.41	823.	0.	0.	157.1	310.1	157.1	1.954E-06	1.937E-06	1.937E-06			
A	5.6	1.74	823.	0.	0.	157.1	310.1	157.1	1.172E-06	1.162E-06	1.162E-06			
A	8.2	0.06	823.	0.	0.	157.1	310.1	157.1	7.921E-07	7.854E-07	7.854E-07			
B	1.6	0.11	823.	0.	0.	118.1	88.8	118.1	1.945E-05	1.871E-05	1.871E-05			
B	3.3	2.52	823.	0.	0.	118.1	88.8	118.1	9.075E-06	8.732E-06	8.732E-06			
B	5.6	2.58	823.	0.	0.	118.1	88.8	118.1	5.445E-06	5.239E-06	5.239E-06			
B	8.2	0.06	823.	0.	0.	118.1	88.8	118.1	3.679E-06	3.540E-06	3.540E-06			
C	3.3	1.35	823.	0.	0.	89.7	51.2	89.7	2.073E-05	1.903E-05	1.903E-05			
C	5.6	1.74	823.	0.	0.	89.7	51.2	89.7	1.244E-05	1.142E-05	1.142E-05			
D	0.2	0.01	823.	0.	0.	63.2	27.1	124.7	4.217E-04	6.716E-04	4.217E-04			
D	1.6	5.16	823.	0.	0.	63.2	27.1	124.7	6.024E-05	9.594E-05	6.024E-05			
D	3.3	13.07	823.	0.	0.	63.2	27.1	90.6	3.869E-05	4.477E-05	3.869E-05			
D	5.6	6.06	823.	0.	0.	63.2	27.1	66.1	3.183E-05	2.686E-05	2.686E-05			
D	8.2	0.56	823.	0.	0.	63.2	27.1	63.2	2.250E-05	1.815E-05	1.815E-05			
D	10.7	0.11	823.	0.	0.	63.2	27.1	63.2	1.735E-05	1.399E-05	1.399E-05			
E	0.2	0.15	823.	0.	0.	44.9	18.7	132.5	5.778E-04	1.144E-03	5.778E-04			
E	1.6	21.04	823.	0.	0.	44.9	18.7	132.5	8.255E-05	1.634E-04	8.255E-05			
E	3.3	21.93	823.	0.	0.	44.9	18.7	79.9	6.389E-05	7.627E-05	6.389E-05			
E	5.6	3.03	823.	0.	0.	44.9	18.7	48.4	6.329E-05	4.576E-05	4.576E-05			
E	8.2	0.22	823.	0.	0.	44.9	18.7	44.9	4.606E-05	3.092E-05	3.092E-05			
F	0.2	0.08	823.	0.	0.	31.0	12.0	121.7	9.797E-04	1.827E-03	9.797E-04			
F	1.6	11.00	823.	0.	0.	31.0	12.0	121.7	1.400E-04	2.609E-04	1.400E-04			
F	3.3	2.58	823.	0.	0.	31.0	12.0	64.2	1.238E-04	1.218E-04	1.218E-04			
G	0.2	0.01	823.	0.	0.	21.4	7.7	125.7	1.477E-03	2.891E-03	1.477E-03			
G	1.6	1.85	823.	0.	0.	21.4	7.7	125.7	2.109E-04	4.129E-04	2.109E-04			
G	3.3	0.39	823.	0.	0.	21.4	7.7	54.9	2.255E-04	1.927E-04	1.927E-04			

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1200 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 10.1 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.1-45.7 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

NNE SECTOR BOUNDARY DISTANCE = 823.0 METERS

LATERAL PLUME MEANDER/BUILDING WAKE CREDIT ALLOWED

AS A FUNCTION OF DOWNWIND DISTANCE.

MEANDER CREDIT IS FOR WINDSPEEDS LESS THAN 6 MPS.

BUILDING WAKE CREDIT ALLOWED: C= 0.5 A= 2584. D= 54.3

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.477E-03	9.797E-04	5.778E-04	4.217E-04	2.109E-04	1.927E-04	1.400E-04	1.218E-04	8.255E-05	6.389E-05
0.015	0.097	0.247	0.259	2.110	2.503	13.498	16.078	37.115	59.049
0.00061	0.00403	0.01029	0.01078	0.08793	0.10430	0.56252	0.67006	1.54676	2.46087
6.024E-05	4.576E-05	3.869E-05	3.092E-05	2.686E-05	1.903E-05	1.871E-05	1.815E-05	1.399E-05	1.142E-05
64.210	67.239	80.310	80.534	86.593	87.939	88.051	88.612	88.724	90.463
2.67595	2.80220	3.34692	3.35627	3.60876	3.66487	3.66955	3.69293	3.69760	3.77008
8.732E-06	5.239E-06	4.152E-06	3.540E-06	1.937E-06	1.162E-06	7.854E-07			
92.988	95.568	95.737	95.793	98.205	99.944	100.000			
3.87528	3.98282	3.98984	3.99218	4.09270	4.16518	4.16752			

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(3)=	2.458
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(4)=	2.673
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(5)=	3.344
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(6)=	3.606
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(7)=	3.872

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
10	1	-6.51806	-10.67817	-0.95117
10	2	-6.92826	-12.37723	-1.38214

Calculation No. PM-1055 Revision 0**Attachment J****Page 1201 of 1411**

10 3 -9.65837 -12.87442 -1.63489
10 4 -9.71722 -18.38227 -4.48702
10 5 -10.15982 -29.78085 -10.70727
10 6 -10.52476 -72.37913 -34.39386
10 7 -11.64850 NUMXQ(K) = 7

4.271E-04	0.042	1.000
2.751E-04	0.125	3.000
2.212E-04	0.208	5.000
1.616E-04	0.417	10.000
1.331E-04	0.625	15.000
1.153E-04	0.834	20.000
1.028E-04	1.042	25.000
9.338E-05	1.250	30.000
8.593E-05	1.459	35.000
7.984E-05	1.667	40.000
7.474E-05	1.875	45.000
7.038E-05	2.084	50.000
6.661E-05	2.292	55.000
6.318E-05	2.501	60.000
5.882E-05	2.709	65.000
5.088E-05	2.917	70.000
4.438E-05	3.126	75.000
3.900E-05	3.334	80.000
2.940E-05	3.542	85.000
1.464E-05	3.751	90.000
1.483E-04	0.5	12.00

ANNUAL AVERAGE = 2.55E-06

K= 10 FIVEXQ(K) = 1.483E-04 FIVEPR(K) = 11.998

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1202 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 10.1 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.1-45.7 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE NE SECTOR.

STABILITY CLASS	WINDSPEED METER/SEC AT 10.0 METERS	FREQUENCY PERCENT	DISTANCE METERS	TERRAIN METERS	HT METERS	EFF METERS	PLUME METERS	HT METERS	SIGMA-Y METERS	SIGMA-Z METERS	MEANDER-SY METERS	** CHI/Q MEANDER	VALUES (SEC/CUBIC METER) BLDG WAKE CA=1292.SQ.METERS	USED
A	1.6	0.21	823.	0.		0.			157.1	310.1	157.1	4.187E-06	4.152E-06	4.152E-06
A	3.3	2.81	823.	0.		0.			157.1	310.1	157.1	1.954E-06	1.937E-06	1.937E-06
A	5.6	2.03	823.	0.		0.			157.1	310.1	157.1	1.172E-06	1.162E-06	1.162E-06
A	8.2	0.16	823.	0.		0.			157.1	310.1	157.1	7.921E-07	7.854E-07	7.854E-07
B	1.6	0.31	823.	0.		0.			118.1	88.8	118.1	1.945E-05	1.871E-05	1.871E-05
B	3.3	3.34	823.	0.		0.			118.1	88.8	118.1	9.075E-06	8.732E-06	8.732E-06
B	5.6	1.46	823.	0.		0.			118.1	88.8	118.1	5.445E-06	5.239E-06	5.239E-06
B	8.2	0.16	823.	0.		0.			118.1	88.8	118.1	3.679E-06	3.540E-06	3.540E-06
C	1.6	0.26	823.	0.		0.			89.7	51.2	89.7	4.443E-05	4.078E-05	4.078E-05
C	3.3	1.25	823.	0.		0.			89.7	51.2	89.7	2.073E-05	1.903E-05	1.903E-05
C	5.6	1.15	823.	0.		0.			89.7	51.2	89.7	1.244E-05	1.142E-05	1.142E-05
D	0.2	0.01	823.	0.		0.			63.2	27.1	124.7	4.217E-04	6.716E-04	4.217E-04
D	1.6	4.06	823.	0.		0.			63.2	27.1	124.7	6.024E-05	9.594E-05	6.024E-05
D	3.3	9.80	823.	0.		0.			63.2	27.1	90.6	3.869E-05	4.477E-05	3.869E-05
D	5.6	4.06	823.	0.		0.			63.2	27.1	66.1	3.183E-05	2.686E-05	2.686E-05
D	8.2	0.26	823.	0.		0.			63.2	27.1	63.2	2.250E-05	1.815E-05	1.815E-05
E	0.2	0.12	823.	0.		0.			44.9	18.7	132.5	5.778E-04	1.144E-03	5.778E-04
E	1.6	16.94	823.	0.		0.			44.9	18.7	132.5	8.255E-05	1.634E-04	8.255E-05
E	3.3	16.88	823.	0.		0.			44.9	18.7	79.9	6.389E-05	7.627E-05	6.389E-05
E	5.6	2.40	823.	0.		0.			44.9	18.7	48.4	6.329E-05	4.576E-05	4.576E-05
F	0.2	0.11	823.	0.		0.			31.0	12.0	121.7	9.797E-04	1.827E-03	9.797E-04
F	1.6	15.32	823.	0.		0.			31.0	12.0	121.7	1.400E-04	2.609E-04	1.400E-04
F	3.3	5.05	823.	0.		0.			31.0	12.0	64.2	1.238E-04	1.218E-04	1.218E-04
F	5.6	0.05	823.	0.		0.			31.0	12.0	34.1	1.400E-04	7.306E-05	7.306E-05
G	0.2	0.07	823.	0.		0.			21.4	7.7	125.7	1.477E-03	2.891E-03	1.477E-03
G	1.6	8.65	823.	0.		0.			21.4	7.7	125.7	2.109E-04	4.129E-04	2.109E-04
G	3.3	3.07	823.	0.		0.			21.4	7.7	54.9	2.255E-04	1.927E-04	1.927E-04

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1203 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 10.1 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.1-45.7 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

NE SECTOR BOUNDARY DISTANCE = 823.0 METERS

LATERAL PLUME MEANDER/BUILDING WAKE CREDIT ALLOWED

AS A FUNCTION OF DOWNWIND DISTANCE.

MEANDER CREDIT IS FOR WINDSPEEDS LESS THAN 6 MPS.

BUILDING WAKE CREDIT ALLOWED: C= 0.5 A= 2584. D= 54.3

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.477E-03	9.797E-04	5.778E-04	4.217E-04	2.109E-04	1.927E-04	1.400E-04	1.218E-04	8.255E-05	7.306E-05
0.068	0.183	0.304	0.313	8.963	12.038	27.358	32.413	49.349	49.401
0.00307	0.00821	0.01363	0.01405	0.40213	0.54007	1.22740	1.45418	2.21398	2.21632
6.389E-05	6.024E-05	4.576E-05	4.078E-05	3.869E-05	2.686E-05	1.903E-05	1.871E-05	1.815E-05	1.142E-05
66.285	70.349	72.746	73.007	82.804	86.868	88.119	88.432	88.692	89.838
2.97379	3.15614	3.26369	3.27538	3.71489	3.89725	3.95336	3.96738	3.97907	4.03051
8.732E-06	5.239E-06	4.152E-06	3.540E-06	1.937E-06	1.162E-06	7.854E-07			
93.174	94.633	94.841	94.997	97.811	99.844	100.000			
4.18013	4.24559	4.25494	4.26196	4.38820	4.47938	4.48639			

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(2)=	1.226
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(3)=	1.453
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(4)=	2.971
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(5)=	3.153
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(6)=	3.712
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(7)=	3.894

K I XQSAVE(K,I) XQINT(K,I) XQSLOP(K,I)

11 1 -6.51806 -11.88757 -1.33995

Calculation No. PM-1055 Revision 0

Attachment J

Page 1204 of 1411

11 2 -8.87417 -13.61017 -2.10593
 11 3 -9.01335 -13.74251 -2.16656
 11 4 -9.65837 -13.87055 -2.23449
 11 5 -9.71722 -20.89988 -6.01626
 11 6 -10.15982 -39.71434 -16.55554
 11 7 -10.52476 NUMXQ(K) = 7

5.888E-04	0.045	1.000
3.835E-04	0.135	3.000
3.099E-04	0.224	5.000
2.281E-04	0.449	10.000
1.887E-04	0.673	15.000
1.640E-04	0.897	20.000
1.466E-04	1.122	25.000
1.298E-04	1.346	30.000
1.140E-04	1.570	35.000
1.015E-04	1.795	40.000
9.139E-05	2.019	45.000
8.309E-05	2.243	50.000
7.613E-05	2.468	55.000
7.020E-05	2.692	60.000
6.509E-05	2.916	65.000
6.054E-05	3.140	70.000
5.070E-05	3.365	75.000
4.253E-05	3.589	80.000
3.171E-05	3.813	85.000
2.170E-04	0.5	11.14

ANNUAL AVERAGE = 3.47E-06

K= 11 FIVEXQ(K) = 2.170E-04 FIVEPR(K)=11.145

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 01/28/03

Page 1205 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Ground Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 10.1 meters

DELTA-T HEIGHTS: 10.1-45.7 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE ENE SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 10.0 METERS												CA=1292.SQ.METERS		
A	1.6	0.24	823.	0.	0.	157.1	310.1	157.1	4.187E-06	4.152E-06	4.152E-06			
A	3.3	1.35	823.	0.	0.	157.1	310.1	157.1	1.954E-06	1.937E-06	1.937E-06			
A	5.6	0.97	823.	0.	0.	157.1	310.1	157.1	1.172E-06	1.162E-06	1.162E-06			
A	8.2	0.03	823.	0.	0.	157.1	310.1	157.1	7.921E-07	7.854E-07	7.854E-07			
B	1.6	0.21	823.	0.	0.	118.1	88.8	118.1	1.945E-05	1.871E-05	1.871E-05			
B	3.3	1.45	823.	0.	0.	118.1	88.8	118.1	9.075E-06	8.732E-06	8.732E-06			
B	5.6	0.83	823.	0.	0.	118.1	88.8	118.1	5.445E-06	5.239E-06	5.239E-06			
C	1.6	0.14	823.	0.	0.	89.7	51.2	89.7	4.443E-05	4.078E-05	4.078E-05			
C	3.3	0.73	823.	0.	0.	89.7	51.2	89.7	2.073E-05	1.903E-05	1.903E-05			
C	5.6	0.76	823.	0.	0.	89.7	51.2	89.7	1.244E-05	1.142E-05	1.142E-05			
D	0.2	0.01	823.	0.	0.	63.2	27.1	124.7	4.217E-04	6.716E-04	4.217E-04			
D	1.6	3.63	823.	0.	0.	63.2	27.1	124.7	6.024E-05	9.594E-05	6.024E-05			
D	3.3	6.04	823.	0.	0.	63.2	27.1	90.6	3.869E-05	4.477E-05	3.869E-05			
D	5.6	2.56	823.	0.	0.	63.2	27.1	66.1	3.183E-05	2.686E-05	2.686E-05			
D	8.2	0.14	823.	0.	0.	63.2	27.1	63.2	2.250E-05	1.815E-05	1.815E-05			
E	0.2	0.10	823.	0.	0.	44.9	18.7	132.5	5.778E-04	1.144E-03	5.778E-04			
E	1.6	13.64	823.	0.	0.	44.9	18.7	132.5	8.255E-05	1.634E-04	8.255E-05			
E	3.3	14.99	823.	0.	0.	44.9	18.7	79.9	6.389E-05	7.627E-05	6.389E-05			
E	5.6	1.76	823.	0.	0.	44.9	18.7	48.4	6.329E-05	4.576E-05	4.576E-05			
F	0.2	0.12	823.	0.	0.	31.0	12.0	121.7	9.797E-04	1.827E-03	9.797E-04			
F	1.6	15.58	823.	0.	0.	31.0	12.0	121.7	1.400E-04	2.609E-04	1.400E-04			
F	3.3	8.70	823.	0.	0.	31.0	12.0	64.2	1.238E-04	1.218E-04	1.218E-04			
F	5.6	0.10	823.	0.	0.	31.0	12.0	34.1	1.400E-04	7.306E-05	7.306E-05			
G	0.2	0.13	823.	0.	0.	21.4	7.7	125.7	1.477E-03	2.891E-03	1.477E-03			
G	1.6	16.99	823.	0.	0.	21.4	7.7	125.7	2.109E-04	4.129E-04	2.109E-04			
G	3.3	8.77	823.	0.	0.	21.4	7.7	54.9	2.255E-04	1.927E-04	1.927E-04			
G	5.6	0.03	823.	0.	0.	21.4	7.7	24.2	3.073E-04	1.156E-04	1.156E-04			

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1206 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 10.1 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.1-45.7 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

ENE SECTOR BOUNDARY DISTANCE = 823.0 METERS

LATERAL PLUME MEANDER/BUILDING WAKE CREDIT ALLOWED

AS A FUNCTION OF DOWNWIND DISTANCE.

MEANDER CREDIT IS FOR WINDSPEEDS LESS THAN 6 MPS.

BUILDING WAKE CREDIT ALLOWED: C= 0.5 A= 2584. D= 54.3

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.477E-03	9.797E-04	5.778E-04	4.217E-04	2.109E-04	1.927E-04	1.400E-04	1.218E-04	1.156E-04	8.255E-05
0.135	0.251	0.348	0.357	17.349	26.122	41.699	50.403	50.437	64.080
0.00910	0.01698	0.02357	0.02414	1.17437	1.76819	2.82256	3.41171	3.41405	4.33750
7.306E-05	6.389E-05	6.024E-05	4.576E-05	4.078E-05	3.869E-05	2.686E-05	1.903E-05	1.871E-05	1.815E-05
64.184	79.173	82.800	84.561	84.699	90.744	93.300	94.025	94.232	94.370
4.34452	5.35915	5.60463	5.72386	5.73321	6.14234	6.31534	6.36444	6.37846	6.38781
1.142E-05	8.732E-06	5.239E-06	4.152E-06	1.937E-06	1.162E-06	7.854E-07			
95.130	96.581	97.410	97.651	98.998	99.965	100.000			
6.43925	6.53744	6.59355	6.60991	6.70109	6.76655	6.76889			

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(2) =	1.766
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(3) =	2.820
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(4) =	3.409
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(5) =	5.601
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(6) =	6.138
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(7) =	6.311

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
12	1	-6.51806	-11.17049	-1.24305

Calculation No. PM-1055 Revision 0**Attachment J****Page 1207 of 1411**

12 2 -8.55435 -11.97717 -1.62634
12 3 -8.87417 -12.03187 -1.65501
12 4 -9.01335 -14.48388 -2.99942
12 5 -9.71722 -25.02701 -9.63368
12 6 -10.15982 -50.07148 -25.86205
12 7 -10.52476 NUMXQ(K) = 7

7.563E-04	0.068	1.000
5.013E-04	0.203	3.000
4.082E-04	0.338	5.000
3.034E-04	0.677	10.000
2.522E-04	1.015	15.000
2.199E-04	1.354	20.000
1.970E-04	1.692	25.000
1.757E-04	2.031	30.000
1.582E-04	2.369	35.000
1.441E-04	2.708	40.000
1.324E-04	3.046	45.000
1.225E-04	3.384	50.000
1.081E-04	3.723	55.000
9.583E-05	4.061	60.000
8.562E-05	4.400	65.000
7.702E-05	4.738	70.000
6.970E-05	5.077	75.000
6.339E-05	5.415	80.000
5.312E-05	5.754	85.000
4.028E-05	6.092	90.000
3.463E-04	0.5	7.39

ANNUAL AVERAGE = 6.49E-06

K= 12 FIVEXQ(K)= 3.463E-04 FIVEPR(K)= 7.387

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 01/28/03

Page 1208 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Ground Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 10.1 meters

DELTA-T HEIGHTS: 10.1 45.7 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE E SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 10.0 METERS												CA=1292.SQ.METERS		
A	1.6	0.43	823.	0.	0.	157.1	310.1	157.1	4.187E-06	4.152E-06	4.152E-06			
A	3.3	2.64	823.	0.	0.	157.1	310.1	157.1	1.954E-06	1.937E-06	1.937E-06			
A	5.6	1.64	823.	0.	0.	157.1	310.1	157.1	1.172E-06	1.162E-06	1.162E-06			
A	8.2	0.11	823.	0.	0.	157.1	310.1	157.1	7.921E-07	7.854E-07	7.854E-07			
B	1.6	0.43	823.	0.	0.	118.1	88.8	118.1	1.945E-05	1.871E-05	1.871E-05			
B	3.3	1.81	823.	0.	0.	118.1	88.8	118.1	9.075E-06	8.732E-06	8.732E-06			
B	5.6	1.45	823.	0.	0.	118.1	88.8	118.1	5.445E-06	5.239E-06	5.239E-06			
B	8.2	0.06	823.	0.	0.	118.1	88.8	118.1	3.679E-06	3.540E-06	3.540E-06			
C	1.6	0.17	823.	0.	0.	89.7	51.2	89.7	4.443E-05	4.078E-05	4.078E-05			
C	3.3	1.19	823.	0.	0.	89.7	51.2	89.7	2.073E-05	1.903E-05	1.903E-05			
C	5.6	0.99	823.	0.	0.	89.7	51.2	89.7	1.244E-05	1.142E-05	1.142E-05			
C	8.2	0.09	823.	0.	0.	89.7	51.2	89.7	8.406E-06	7.714E-06	7.714E-06			
D	0.2	0.01	823.	0.	0.	63.2	27.1	124.7	4.217E-04	6.716E-04	4.217E-04			
D	1.6	3.46	823.	0.	0.	63.2	27.1	124.7	6.024E-05	9.594E-05	6.024E-05			
D	3.3	8.42	823.	0.	0.	63.2	27.1	90.6	3.869E-05	4.477E-05	3.869E-05			
D	5.6	6.06	823.	0.	0.	63.2	27.1	66.1	3.183E-05	2.686E-05	2.686E-05			
D	8.2	1.22	823.	0.	0.	63.2	27.1	63.2	2.250E-05	1.815E-05	1.815E-05			
E	0.2	0.09	823.	0.	0.	44.9	18.7	132.5	5.778E-04	1.144E-03	5.778E-04			
E	1.6	12.70	823.	0.	0.	44.9	18.7	132.5	8.255E-05	1.634E-04	8.255E-05			
E	3.3	18.93	823.	0.	0.	44.9	18.7	79.9	6.389E-05	7.627E-05	6.389E-05			
E	5.6	3.49	823.	0.	0.	44.9	18.7	48.4	6.329E-05	4.576E-05	4.576E-05			
E	8.2	0.17	823.	0.	0.	44.9	18.7	44.9	4.606E-05	3.092E-05	3.092E-05			
F	0.2	0.11	823.	0.	0.	31.0	12.0	121.7	9.797E-04	1.827E-03	9.797E-04			
F	1.6	14.17	823.	0.	0.	31.0	12.0	121.7	1.400E-04	2.609E-04	1.400E-04			
F	3.3	6.04	823.	0.	0.	31.0	12.0	64.2	1.238E-04	1.218E-04	1.218E-04			
G	0.2	0.10	823.	0.	0.	21.4	7.7	125.7	1.477E-03	2.891E-03	1.477E-03			
G	1.6	12.04	823.	0.	0.	21.4	7.7	125.7	2.109E-04	4.129E-04	2.109E-04			
G	3.3	2.01	823.	0.	0.	21.4	7.7	54.9	2.255E-04	1.927E-04	1.927E-04			

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1209 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 10.1 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.1-45.7 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

E SECTOR BOUNDARY DISTANCE = 823.0 METERS

LATERAL PLUME MEANDER/BUILDING WAKE CREDIT ALLOWED

AS A FUNCTION OF DOWNWIND DISTANCE.

MEANDER CREDIT IS FOR WINDSPEEDS LESS THAN 6 MPS.

BUILDING WAKE CREDIT ALLOWED: C= 0.5 A= 2584. D= 54.3

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.477E-03	9.797E-04	5.778E-04	4.217E-04	2.109E-04	1.927E-04	1.400E-04	1.218E-04	8.255E-05	6.389E-05
0.095	0.201	0.292	0.300	12.344	14.356	28.526	34.563	47.259	66.190
0.00786	0.01660	0.02407	0.02473	1.01832	1.18431	2.35324	2.85121	3.89858	5.46027
6.024E-05	4.576E-05	4.078E-05	3.869E-05	3.092E-05	2.686E-05	1.903E-05	1.871E-05	1.815E-05	1.142E-05
69.648	73.134	73.304	81.721	81.891	87.955	89.146	89.571	90.789	91.781
5.74549	6.03305	6.04708	6.74143	6.75545	7.25576	7.35395	7.38902	7.48954	7.57137
8.732E-06	7.714E-06	5.239E-06	4.152E-06	3.540E-06	1.937E-06	1.162E-06	7.854E-07		
93.595	93.680	95.126	95.551	95.607	98.243	99.887	100.000		
7.72099	7.72801	7.84724	7.88231	7.88698	8.10440	8.24000	8.24935		

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(2)=	2.351
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(3)=	2.848
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(4)=	5.456
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(5)=	5.742
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(6)=	6.738
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(7)=	7.252
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(8)=	7.486

K I XQSAVE(K,I) XQINT(K,I) XQSLOP(K,I)

Calculation No. PM-1055 Revision 0

Attachment J

Page 1210 of 1411

13 1 -6.51806 -11.48381 -1.31392
 13 2 -8.87417 -12.22066 -1.68491
 13 3 -9.01335 -13.08667 -2.13986
 13 4 -9.65837 -13.38812 -2.32802
 13 5 -9.71722 -18.31104 -5.45004
 13 6 -10.15982 -24.39482 -9.51776
 13 7 -10.52476 -44.64853 -23.41603
 13 8 -10.91680 NUMXQ(K) = 8

6.435E-04	0.082	1.000
4.135E-04	0.247	3.000
3.314E-04	0.412	5.000
2.405E-04	0.825	10.000
1.968E-04	1.237	15.000
1.696E-04	1.650	20.000
1.505E-04	2.062	25.000
1.350E-04	2.475	30.000
1.203E-04	2.887	35.000
1.060E-04	3.300	40.000
9.459E-05	3.712	45.000
8.523E-05	4.125	50.000
7.742E-05	4.537	55.000
7.080E-05	4.950	60.000
6.512E-05	5.362	65.000
5.942E-05	5.775	70.000
4.917E-05	6.187	75.000
4.108E-05	6.599	80.000
3.185E-05	7.012	85.000
2.023E-05	7.424	90.000

3.039E-04 0.5 6.06

ANNUAL AVERAGE = 6.50E-06

K= 13 FIVEXQ(K)= 3.039E-04 FIVEPR(K)= 6.061

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1211 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 10.1 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.1-45.7 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE ESE SECTOR.

STABILITY CLASS	WINDSPEED METER/SEC AT 10.0 METERS	FREQUENCY PERCENT	DISTANCE METERS	TERRAIN METERS	HT METERS	EFF METERS	PLUME METERS	HT METERS	SIGMA-Y METERS	SIGMA-Z METERS	MEANDER-SY METERS	** CHI/Q VALUES (SEC/CUBIC METER)	MEANDER	BLDG WAKE	USED
														CA=1292.SQ.METERS	
A	1.6	0.39	823.	0.	0.	157.1	310.1	157.1	4.187E-06	4.152E-06	4.152E-06				
A	3.3	2.50	823.	0.	0.	157.1	310.1	157.1	1.954E-06	1.937E-06	1.937E-06				
A	5.6	0.87	823.	0.	0.	157.1	310.1	157.1	1.172E-06	1.162E-06	1.162E-06				
A	8.2	0.19	823.	0.	0.	157.1	310.1	157.1	7.921E-07	7.854E-07	7.854E-07				
B	1.6	0.29	823.	0.	0.	118.1	88.8	118.1	1.945E-05	1.871E-05	1.871E-05				
B	3.3	1.71	823.	0.	0.	118.1	88.8	118.1	9.075E-06	8.732E-06	8.732E-06				
B	5.6	1.71	823.	0.	0.	118.1	88.8	118.1	5.445E-06	5.239E-06	5.239E-06				
B	8.2	0.39	823.	0.	0.	118.1	88.8	118.1	3.679E-06	3.540E-06	3.540E-06				
B	10.7	0.02	823.	0.	0.	118.1	88.8	118.1	2.836E-06	2.729E-06	2.729E-06				
C	1.6	0.17	823.	0.	0.	89.7	51.2	89.7	4.443E-05	4.078E-05	4.078E-05				
C	3.3	0.89	823.	0.	0.	89.7	51.2	89.7	2.073E-05	1.903E-05	1.903E-05				
C	5.6	1.28	823.	0.	0.	89.7	51.2	89.7	1.244E-05	1.142E-05	1.142E-05				
C	8.2	0.29	823.	0.	0.	89.7	51.2	89.7	8.406E-06	7.714E-06	7.714E-06				
D	0.2	0.01	823.	0.	0.	63.2	27.1	124.7	4.217E-04	6.716E-04	4.217E-04				
D	1.6	3.08	823.	0.	0.	63.2	27.1	124.7	6.024E-05	9.594E-05	6.024E-05				
D	3.3	10.41	823.	0.	0.	63.2	27.1	90.6	3.869E-05	4.477E-05	3.869E-05				
D	5.6	13.85	823.	0.	0.	63.2	27.1	66.1	3.183E-05	2.686E-05	2.686E-05				
D	8.2	1.37	823.	0.	0.	63.2	27.1	63.2	2.250E-05	1.815E-05	1.815E-05				
D	10.7	0.02	823.	0.	0.	63.2	27.1	63.2	1.735E-05	1.399E-05	1.399E-05				
E	0.2	0.09	823.	0.	0.	44.9	18.7	132.5	5.778E-04	1.144E-03	5.778E-04				
E	1.6	11.99	823.	0.	0.	44.9	18.7	132.5	8.255E-05	1.634E-04	8.255E-05				
E	3.3	24.18	823.	0.	0.	44.9	18.7	79.9	6.389E-05	7.627E-05	6.389E-05				
E	5.6	4.65	823.	0.	0.	44.9	18.7	48.4	6.329E-05	4.576E-05	4.576E-05				
E	8.2	0.19	823.	0.	0.	44.9	18.7	44.9	4.606E-05	3.092E-05	3.092E-05				
F	0.2	0.07	823.	0.	0.	31.0	12.0	121.7	9.797E-04	1.827E-03	9.797E-04				
F	1.6	10.02	823.	0.	0.	31.0	12.0	121.7	1.400E-04	2.609E-04	1.400E-04				
F	3.3	3.28	823.	0.	0.	31.0	12.0	64.2	1.238E-04	1.218E-04	1.218E-04				
F	5.6	0.02	823.	0.	0.	31.0	12.0	34.1	1.400E-04	7.306E-05	7.306E-05				
G	0.2	0.04	823.	0.	0.	21.4	7.7	125.7	1.477E-03	2.891E-03	1.477E-03				
G	1.6	5.64	823.	0.	0.	21.4	7.7	125.7	2.109E-04	4.129E-04	2.109E-04				
G	3.3	0.39	823.	0.	0.	21.4	7.7	54.9	2.255E-04	1.927E-04	1.927E-04				

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1212 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 10.1 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.1 45.7 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

ESE SECTOR BOUNDARY DISTANCE = 823.0 METERS

LATERAL PLUME MEANDER/BUILDING WAKE CREDIT ALLOWED

AS A FUNCTION OF DOWNWIND DISTANCE.

MEANDER CREDIT IS FOR WINDSPEEDS LESS THAN 6 MPS.

BUILDING WAKE CREDIT ALLOWED: C= 0.5 A= 2584. D= 54.3

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.477E-03	9.797E-04	5.778E-04	4.217E-04	2.109E-04	1.927E-04	1.400E-04	1.218E-04	8.255E-05	7.306E-05
0.045	0.119	0.205	0.212	5.848	6.234	16.253	19.529	31.524	31.548
0.00433	0.01160	0.01990	0.02059	0.56765	0.60506	1.57761	1.89556	3.05982	3.06216
6.389E-05	6.024E-05	4.576E-05	4.078E-05	3.869E-05	3.092E-05	2.686E-05	1.903E-05	1.871E-05	1.815E-05
55.730	58.813	63.462	63.630	74.035	74.228	88.077	88.969	89.258	90.631
5.40938	5.70863	6.15983	6.17620	7.18616	7.20486	8.54914	8.63564	8.66369	8.79695
1.399E-05	1.142E-05	8.732E-06	7.714E-06	5.239E-06	4.152E-06	3.540E-06	2.729E-06	1.937E-06	1.162E-06
90.655	91.931	93.641	93.930	95.640	96.026	96.411	96.435	98.940	99.807
8.79929	8.92319	9.08918	9.11724	9.28323	9.32063	9.35804	9.36038	9.60352	9.68768
7.854E-07									
100.000									
9.70638									

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE (2) =	1.576
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE (3) =	5.406
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE (4) =	5.705
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE (5) =	7.182
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE (6) =	8.546

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(7) = 8.793

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
14	1	-6.51806	-11.72884	-1.32745
14	2	-8.87417	-11.97563	-1.44222
14	3	-9.65837	-13.20141	-2.20511
14	4	-9.71722	-15.65874	-3.76034
14	5	-10.15982	-15.89438	-3.92148
14	6	-10.52476	-44.72396	-24.97599
14	7	-10.91680	NUMXQ(K) = 7	
		4.932E-04	0.097	1.000
		3.135E-04	0.291	3.000
		2.497E-04	0.485	5.000
		1.795E-04	0.971	10.000
		1.460E-04	1.456	15.000
		1.240E-04	1.941	20.000
		1.084E-04	2.427	25.000
		9.673E-05	2.912	30.000
		8.762E-05	3.397	35.000
		8.026E-05	3.883	40.000
		7.414E-05	4.368	45.000
		6.895E-05	4.853	50.000
		6.449E-05	5.339	55.000
		5.802E-05	5.824	60.000
		4.984E-05	6.309	65.000
		4.319E-05	6.794	70.000
		3.768E-05	7.280	75.000
		3.294E-05	7.765	80.000
		2.898E-05	8.250	85.000
		1.998E-05	8.736	90.000
		2.463E-04	0.5	5.15

ANNUAL AVERAGE = 5.73E-06

K= 14 FIVEXQ(K)= 2.463E-04 FIVEPR(K)= 5.151

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 01/28/03

Page 1214 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Ground Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 10.1 meters

DELTA-T HEIGHTS: 10.1-45.7 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE SE SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 10.0 METERS												CA=1292.SQ.METERS		
A	1.6	0.49	823.	0.	0.	0.	157.1	310.1	157.1	4.187E-06	4.152E-06	4.152E-06		
A	3.3	1.58	823.	0.	0.	0.	157.1	310.1	157.1	1.954E-06	1.937E-06	1.937E-06		
A	5.6	0.51	823.	0.	0.	0.	157.1	310.1	157.1	1.172E-06	1.162E-06	1.162E-06		
A	8.2	0.06	823.	0.	0.	0.	157.1	310.1	157.1	7.921E-07	7.854E-07	7.854E-07		
B	1.6	0.18	823.	0.	0.	0.	118.1	88.8	118.1	1.945E-05	1.871E-05	1.871E-05		
B	3.3	1.40	823.	0.	0.	0.	118.1	88.8	118.1	9.075E-06	8.732E-06	8.732E-06		
B	5.6	1.83	823.	0.	0.	0.	118.1	88.8	118.1	5.445E-06	5.239E-06	5.239E-06		
B	8.2	0.43	823.	0.	0.	0.	118.1	88.8	118.1	3.679E-06	3.540E-06	3.540E-06		
C	1.6	0.18	823.	0.	0.	0.	89.7	51.2	89.7	4.443E-05	4.078E-05	4.078E-05		
C	3.3	0.94	823.	0.	0.	0.	89.7	51.2	89.7	2.073E-05	1.903E-05	1.903E-05		
C	5.6	1.64	823.	0.	0.	0.	89.7	51.2	89.7	1.244E-05	1.142E-05	1.142E-05		
C	8.2	0.41	823.	0.	0.	0.	89.7	51.2	89.7	8.406E-06	7.714E-06	7.714E-06		
D	0.2	0.01	823.	0.	0.	0.	63.2	27.1	124.7	4.217E-04	6.716E-04	4.217E-04		
D	1.6	3.94	823.	0.	0.	0.	63.2	27.1	124.7	6.024E-05	9.594E-05	6.024E-05		
D	3.3	15.18	823.	0.	0.	0.	63.2	27.1	90.6	3.869E-05	4.477E-05	3.869E-05		
D	5.6	18.92	823.	0.	0.	0.	63.2	27.1	66.1	3.183E-05	2.686E-05	2.686E-05		
D	8.2	3.47	823.	0.	0.	0.	63.2	27.1	63.2	2.250E-05	1.815E-05	1.815E-05		
E	0.2	0.09	823.	0.	0.	0.	44.9	18.7	132.5	5.778E-04	1.144E-03	5.778E-04		
E	1.6	12.49	823.	0.	0.	0.	44.9	18.7	132.5	8.255E-05	1.634E-04	8.255E-05		
E	3.3	19.45	823.	0.	0.	0.	44.9	18.7	79.9	6.389E-05	7.627E-05	6.389E-05		
E	5.6	5.27	823.	0.	0.	0.	44.9	18.7	48.4	6.329E-05	4.576E-05	4.576E-05		
E	8.2	0.18	823.	0.	0.	0.	44.9	18.7	44.9	4.606E-05	3.092E-05	3.092E-05		
F	0.2	0.05	823.	0.	0.	0.	31.0	12.0	121.7	9.797E-04	1.827E-03	9.797E-04		
F	1.6	6.79	823.	0.	0.	0.	31.0	12.0	121.7	1.400E-04	2.609E-04	1.400E-04		
F	3.3	1.87	823.	0.	0.	0.	31.0	12.0	64.2	1.238E-04	1.218E-04	1.218E-04		
F	5.6	0.02	823.	0.	0.	0.	31.0	12.0	34.1	1.400E-04	7.306E-05	7.306E-05		
G	0.2	0.02	823.	0.	0.	0.	21.4	7.7	125.7	1.477E-03	2.891E-03	1.477E-03		
G	1.6	2.44	823.	0.	0.	0.	21.4	7.7	125.7	2.109E-04	4.129E-04	2.109E-04		
G	3.3	0.14	823.	0.	0.	0.	21.4	7.7	54.9	2.255E-04	1.927E-04	1.927E-04		

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1215 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 10.1 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.1-45.7 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

SE SECTOR BOUNDARY DISTANCE = 823.0 METERS

LATERAL PLUME MEANDER/BUILDING WAKE CREDIT ALLOWED

AS A FUNCTION OF DOWNWIND DISTANCE.

MEANDER CREDIT IS FOR WINDSPEEDS LESS THAN 6 MPS.

BUILDING WAKE CREDIT ALLOWED: C= 0.5 A= 2584. D= 54.3

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.477E-03	9.797E-04	5.778E-04	4.217E-04	2.109E-04	1.927E-04	1.400E-04	1.218E-04	8.255E-05	7.306E-05
0.019	0.070	0.159	0.168	2.610	2.753	9.544	11.411	23.905	23.926
0.00220	0.00798	0.01814	0.01918	0.29738	0.31375	1.08758	1.30033	2.72409	2.72643
6.389E-05	6.024E-05	4.576E-05	4.078E-05	3.869E-05	3.092E-05	2.686E-05	1.903E-05	1.871E-05	1.815E-05
43.375	47.314	52.587	52.772	67.954	68.138	87.054	87.998	88.183	91.650
4.94273	5.39160	5.99243	6.01347	7.74349	7.76453	9.92005	10.02759	10.04863	10.44373
1.142E-05	8.732E-06	7.714E-06	5.239E-06	4.152E-06	3.540E-06	1.937E-06	1.162E-06	7.854E-07	
93.291	94.686	95.097	96.923	97.415	97.846	99.426	99.938	100.000	
10.63076	10.78974	10.83649	11.04456	11.10067	11.14977	11.32978	11.38823	11.39524	

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(2)=	1.086
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(3)=	4.939
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(4)=	5.388
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(5)=	7.740
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(6)=	9.917

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
15	1	-6.51806	-11.89504	-1.31622
15	2	-8.87417	-11.66752	-1.21708

Calculation No. PM-1055 Revision 0**Attachment J****Page 1216 of 1411**

15 3 -9.65837 -11.94803 -1.38701
15 4 -9.71722 -13.55345 -2.38518
15 5 -10.15982 -13.96383 -2.67361
15 6 -10.52476 NUMXQ(K)= 6

3.788E-04	0.114	1.000
2.401E-04	0.342	3.000
1.909E-04	0.570	5.000
1.370E-04	1.140	10.000
1.129E-04	1.709	15.000
9.769E-05	2.279	20.000
8.694E-05	2.849	25.000
7.878E-05	3.419	30.000
7.230E-05	3.988	35.000
6.698E-05	4.558	40.000
6.233E-05	5.128	45.000
5.643E-05	5.698	50.000
5.033E-05	6.267	55.000
4.524E-05	6.837	60.000
4.094E-05	7.407	65.000
3.708E-05	7.977	70.000
3.355E-05	8.546	75.000
3.050E-05	9.116	80.000
2.785E-05	9.686	85.000

2.026E-04	0.5	4.39
-----------	-----	------

ANNUAL AVERAGE = 5.54E-06

K= 15 FIVEXQ(K)= 2.026E-04 FIVEPR(K)= 4.388

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 01/28/03

Page 1217 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Ground Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 10.1 meters

DELTA-T HEIGHTS: 10.1-45.7 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE SSE SECTOR.

STABILITY CLASS	WINDSPEED METER/SEC AT 10.0 METERS	FREQUENCY PERCENT	DISTANCE METERS	TERRAIN METERS	HT METERS	EFF METERS	PLUME METERS	HT METERS	SIGMA-Y METERS	SIGMA-Z METERS	MEANDER-SY METERS	** CHI/Q VALUES (SEC/CUBIC METER)	MEANDER	BLDG WAKE	USED
														CA=1292.SQ.METERS	
A	1.6	0.84	823.	0.	0.	157.1	310.1	157.1	4.187E-06	4.152E-06	4.152E-06				
A	3.3	4.22	823.	0.	0.	157.1	310.1	157.1	1.954E-06	1.937E-06	1.937E-06				
A	5.6	1.88	823.	0.	0.	157.1	310.1	157.1	1.172E-06	1.162E-06	1.162E-06				
A	8.2	0.02	823.	0.	0.	157.1	310.1	157.1	7.921E-07	7.854E-07	7.854E-07				
B	1.6	0.79	823.	0.	0.	118.1	88.8	118.1	1.945E-05	1.871E-05	1.871E-05				
B	3.3	3.47	823.	0.	0.	118.1	88.8	118.1	9.075E-06	8.732E-06	8.732E-06				
B	5.6	3.51	823.	0.	0.	118.1	88.8	118.1	5.445E-06	5.239E-06	5.239E-06				
B	8.2	0.19	823.	0.	0.	118.1	88.8	118.1	3.679E-06	3.540E-06	3.540E-06				
C	1.6	0.69	823.	0.	0.	89.7	51.2	89.7	4.443E-05	4.078E-05	4.078E-05				
C	3.3	2.61	823.	0.	0.	89.7	51.2	89.7	2.073E-05	1.903E-05	1.903E-05				
C	5.6	2.61	823.	0.	0.	89.7	51.2	89.7	1.244E-05	1.142E-05	1.142E-05				
C	8.2	0.33	823.	0.	0.	89.7	51.2	89.7	8.406E-06	7.714E-06	7.714E-06				
D	0.2	0.01	823.	0.	0.	63.2	27.1	124.7	4.217E-04	6.716E-04	4.217E-04				
D	1.6	4.97	823.	0.	0.	63.2	27.1	124.7	6.024E-05	9.594E-05	6.024E-05				
D	3.3	19.27	823.	0.	0.	63.2	27.1	90.6	3.869E-05	4.477E-05	3.869E-05				
D	5.6	16.55	823.	0.	0.	63.2	27.1	66.1	3.183E-05	2.686E-05	2.686E-05				
D	8.2	2.76	823.	0.	0.	63.2	27.1	63.2	2.250E-05	1.815E-05	1.815E-05				
D	24.5	0.06	823.	0.	0.	63.2	27.1	63.2	7.570E-06	6.105E-06	6.105E-06				
E	0.2	0.06	823.	0.	0.	44.9	18.7	132.5	5.778E-04	1.144E-03	5.778E-04				
E	1.6	8.92	823.	0.	0.	44.9	18.7	132.5	8.255E-05	1.634E-04	8.255E-05				
E	3.3	15.90	823.	0.	0.	44.9	18.7	79.9	6.389E-05	7.627E-05	6.389E-05				
E	5.6	4.41	823.	0.	0.	44.9	18.7	48.4	6.329E-05	4.576E-05	4.576E-05				
E	8.2	0.21	823.	0.	0.	44.9	18.7	44.9	4.606E-05	3.092E-05	3.092E-05				
E	10.7	0.02	823.	0.	0.	44.9	18.7	44.9	3.551E-05	2.383E-05	2.383E-05				
E	24.5	0.13	823.	0.	0.	44.9	18.7	44.9	1.549E-05	1.040E-05	1.040E-05				
F	0.2	0.03	823.	0.	0.	31.0	12.0	121.7	9.797E-04	1.827E-03	9.797E-04				
F	1.6	3.39	823.	0.	0.	31.0	12.0	121.7	1.400E-04	2.609E-04	1.400E-04				
F	3.3	0.79	823.	0.	0.	31.0	12.0	64.2	1.238E-04	1.218E-04	1.218E-04				
F	5.6	0.04	823.	0.	0.	31.0	12.0	34.1	1.400E-04	7.306E-05	7.306E-05				
G	0.2	0.01	823.	0.	0.	21.4	7.7	125.7	1.477E-03	2.891E-03	1.477E-03				
G	1.6	1.21	823.	0.	0.	21.4	7.7	125.7	2.109E-04	4.129E-04	2.109E-04				
G	3.3	0.06	823.	0.	0.	21.4	7.7	54.9	2.255E-04	1.927E-04	1.927E-04				
G	5.6	0.02	823.	0.	0.	21.4	7.7	24.2	3.073E-04	1.156E-04	1.156E-04				

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1218 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 10.1 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.1-45.7 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

SSE SECTOR BOUNDARY DISTANCE = 823.0 METERS

LATERAL PLUME MEANDER/BUILDING WAKE CREDIT ALLOWED

AS A FUNCTION OF DOWNWIND DISTANCE.

MEANDER CREDIT IS FOR WINDSPEEDS LESS THAN 6 MPS.

BUILDING WAKE CREDIT ALLOWED: C= 0.5 A= 2584. D= 54.3

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.477E-03	9.797E-04	5.778E-04	4.217E-04	2.109E-04	1.927E-04	1.400E-04	1.218E-04	1.156E-04	8.255E-05
0.010	0.035	0.099	0.110	1.322	1.385	4.770	5.564	5.585	14.508
0.00107	0.00390	0.01102	0.01231	0.14790	0.15492	0.53365	0.62249	0.62483	1.62310
7.306E-05	6.389E-05	6.024E-05	4.576E-05	4.078E-05	3.869E-05	3.092E-05	2.686E-05	2.383E-05	1.903E-05
14.550	30.453	35.427	39.836	40.526	59.793	60.002	76.553	76.574	79.186
1.62777	3.40689	3.96331	4.45660	4.53375	6.68926	6.71264	8.56423	8.56657	8.85880
1.871E-05	1.815E-05	1.142E-05	1.040E-05	8.732E-06	7.714E-06	6.105E-06	5.239E-06	4.152E-06	3.540E-06
79.980	82.739	85.351	85.476	88.945	89.280	89.342	92.853	93.689	93.877
8.94764	9.25624	9.54847	9.56250	9.95059	9.98799	9.99501	10.38777	10.48128	10.50232
1.937E-06	1.162E-06	7.854E-07							
98.098	99.979	100.000							
10.97457	11.18498	11.18732							

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE (2)=	1.621
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE (5)=	6.685
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE (6)=	8.561
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE (7)=	9.253

Calculation No. PM-1055 Revision 0

Attachment J

Page 1219 of 1411

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
16	1	-6.51806	-12.32618	-1.36693
16	2	-9.40215	-11.14419	-0.81437
16	3	-9.65837	-11.21124	-0.85112
16	4	-9.71722	-12.75544	-1.73083
16	5	-10.15982	-14.32732	-2.77900
16	6	-10.52476	-23.00779	-9.12290
16	7	-10.91680	NUMXQ(K) = 7	
		2.895E-04	0.112	1.000
		1.804E-04	0.336	3.000
		1.422E-04	0.559	5.000
		1.007E-04	1.119	10.000
		8.165E-05	1.678	15.000
		7.415E-05	2.237	20.000
		6.860E-05	2.797	25.000
		6.424E-05	3.356	30.000
		6.053E-05	3.916	35.000
		5.458E-05	4.475	40.000
		4.950E-05	5.034	45.000
		4.526E-05	5.594	50.000
		4.166E-05	6.153	55.000
		3.850E-05	6.712	60.000
		3.429E-05	7.272	65.000
		3.074E-05	7.831	70.000
		2.771E-05	8.390	75.000
		2.153E-05	8.950	80.000
		1.500E-04	0.5	4.47

ANNUAL AVERAGE = 4.28E-06

K= 16 FIVEXQ(K)= 1.500E-04 FIVEPR(K)= 4.469

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 01/28/03

Page 1220 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Ground Release

SOURCE OF DATA:

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 10.1 meters

DELTA-T HEIGHTS: 10.1-45.7 meters

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE ALL SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER BLDG WAKE USED
AT 10.0 METERS												CA=1292.SQ.METERS
A	1.6	2.07	823.	0.	0.	0.	157.1	310.1	157.1	4.187E-06	4.152E-06	4.152E-06
A	3.3	3.09	823.	0.	0.	0.	157.1	310.1	157.1	1.954E-06	1.937E-06	1.937E-06
A	5.6	1.12	823.	0.	0.	0.	157.1	310.1	157.1	1.172E-06	1.162E-06	1.162E-06
A	8.2	0.09	823.	0.	0.	0.	157.1	310.1	157.1	7.921E-07	7.854E-07	7.854E-07
A	24.5	0.01	823.	0.	0.	0.	157.1	310.1	157.1	2.664E-07	2.642E-07	2.642E-07
B	1.6	1.14	823.	0.	0.	0.	118.1	88.8	118.1	1.945E-05	1.871E-05	1.871E-05
B	3.3	2.32	823.	0.	0.	0.	118.1	88.8	118.1	9.075E-06	8.732E-06	8.732E-06
B	5.6	1.66	823.	0.	0.	0.	118.1	88.8	118.1	5.445E-06	5.239E-06	5.239E-06
B	8.2	0.19	823.	0.	0.	0.	118.1	88.8	118.1	3.679E-06	3.540E-06	3.540E-06
B	10.7	0.00	823.	0.	0.	0.	118.1	88.8	118.1	2.836E-06	2.729E-06	2.729E-06
B	24.5	0.00	823.	0.	0.	0.	118.1	88.8	118.1	1.237E-06	1.191E-06	1.191E-06
C	1.6	0.70	823.	0.	0.	0.	89.7	51.2	89.7	4.443E-05	4.078E-05	4.078E-05
C	3.3	1.33	823.	0.	0.	0.	89.7	51.2	89.7	2.073E-05	1.903E-05	1.903E-05
C	5.6	1.13	823.	0.	0.	0.	89.7	51.2	89.7	1.244E-05	1.142E-05	1.142E-05
C	8.2	0.15	823.	0.	0.	0.	89.7	51.2	89.7	8.406E-06	7.714E-06	7.714E-06
C	10.7	0.00	823.	0.	0.	0.	89.7	51.2	89.7	6.479E-06	5.947E-06	5.947E-06
D	0.2	0.02	823.	0.	0.	0.	63.2	27.1	63.2	8.327E-04	6.716E-04	6.716E-04
D	1.6	8.11	823.	0.	0.	0.	63.2	27.1	63.2	1.190E-04	9.594E-05	9.594E-05
D	3.3	12.97	823.	0.	0.	0.	63.2	27.1	63.2	5.551E-05	4.477E-05	4.477E-05
D	5.6	8.31	823.	0.	0.	0.	63.2	27.1	63.2	3.331E-05	2.686E-05	2.686E-05
D	8.2	1.17	823.	0.	0.	0.	63.2	27.1	63.2	2.250E-05	1.815E-05	1.815E-05
D	10.7	0.01	823.	0.	0.	0.	63.2	27.1	63.2	1.735E-05	1.399E-05	1.399E-05
D	24.5	0.01	823.	0.	0.	0.	63.2	27.1	63.2	7.570E-06	6.105E-06	6.105E-06
E	0.2	0.13	823.	0.	0.	0.	44.9	18.7	44.9	1.704E-03	1.144E-03	1.144E-03
E	1.6	17.70	823.	0.	0.	0.	44.9	18.7	44.9	2.435E-04	1.634E-04	1.634E-04
E	3.3	17.17	823.	0.	0.	0.	44.9	18.7	44.9	1.136E-04	7.627E-05	7.627E-05
E	5.6	3.18	823.	0.	0.	0.	44.9	18.7	44.9	6.817E-05	4.576E-05	4.576E-05
E	8.2	0.17	823.	0.	0.	0.	44.9	18.7	44.9	4.606E-05	3.092E-05	3.092E-05
E	10.7	0.00	823.	0.	0.	0.	44.9	18.7	44.9	3.551E-05	2.383E-05	2.383E-05
E	24.5	0.02	823.	0.	0.	0.	44.9	18.7	44.9	1.549E-05	1.040E-05	1.040E-05
F	0.2	0.06	823.	0.	0.	0.	31.0	12.0	31.0	3.845E-03	1.827E-03	1.827E-03
F	1.6	8.14	823.	0.	0.	0.	31.0	12.0	31.0	5.492E-04	2.609E-04	2.609E-04
F	3.3	2.33	823.	0.	0.	0.	31.0	12.0	31.0	2.563E-04	1.218E-04	1.218E-04
F	5.6	0.02	823.	0.	0.	0.	31.0	12.0	31.0	1.538E-04	7.306E-05	7.306E-05

G	0.2	0.04	823.	0.	0.	21.4	7.7	21.4	8.673E-03	2.891E-03	2.891E-03
G	1.6	4.43	823.	0.	0.	21.4	7.7	21.4	1.239E-03	4.129E-04	4.129E-04
G	3.3	1.01	823.	0.	0.	21.4	7.7	21.4	5.782E-04	1.927E-04	1.927E-04
G	5.6	0.00	823.	0.	0.	21.4	7.7	21.4	3.469E-04	1.156E-04	1.156E-04

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1222 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 10.1 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.1-45.7 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

DIRECTION-INDEPENDENT (S.R.P 2.3.4) MODEL.

MINIMUM BOUNDARY DISTANCE = 823.0 METERS.

BUILDING WAKE CREDIT ALLOWED: C= 0.5 A= 2584. D= 54.3

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

2.891E-03	1.827E-03	1.144E-03	6.716E-04	4.129E-04	2.609E-04	1.927E-04	1.634E-04	1.218E-04	1.156E-04
0.035	0.096	0.222	0.241	4.671	12.807	13.817	31.514	33.841	33.845
0.03507	0.09585	0.22210	0.24080	4.67106	12.80684	13.81680	31.51447	33.84065	33.84533
9.594E-05	7.627E-05	7.306E-05	4.576E-05	4.477E-05	4.078E-05	3.092E-05	2.686E-05	2.383E-05	1.903E-05
41.953	59.127	59.146	62.328	75.293	75.995	76.165	84.472	84.477	85.807
41.95306	59.12704	59.14574	62.32758	75.29340	75.99477	76.16543	84.47188	84.47655	85.80680
1.871E-05	1.815E-05	1.399E-05	1.142E-05	1.040E-05	8.732E-06	7.714E-06	6.105E-06	5.947E-06	5.239E-06
86.948	88.121	88.128	89.260	89.276	91.595	91.745	91.757	91.759	93.424
86.94768	88.12128	88.12830	89.25983	89.27619	91.59535	91.74497	91.75666	91.75900	93.42356
4.152E-06	3.540E-06	2.729E-06	1.937E-06	1.191E-06	1.162E-06	7.854E-07	2.642E-07		
95.495	95.689	95.691	98.777	98.780	99.897	99.991	100.000		
95.49491	95.68896	95.69129	98.77728	98.77962	99.89712	99.99063	99.99998		

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

1.012E-03	1.000	1.000
6.517E-04	3.000	3.000
5.162E-04	5.000	5.000
3.605E-04	10.000	10.000
2.829E-04	15.000	15.000
2.333E-04	20.000	20.000
1.978E-04	25.000	25.000
1.705E-04	30.000	30.000
1.475E-04	35.000	35.000

1.280E-04	40.000	40.000
1.117E-04	45.000	45.000
9.762E-05	50.000	50.000
8.535E-05	55.000	55.000
7.427E-05	60.000	60.000
6.360E-05	65.000	65.000
5.400E-05	70.000	70.000
4.526E-05	75.000	75.000
3.507E-05	80.000	80.000
2.549E-05	85.000	85.000
1.604E-05	90.000	90.000

5.162E-04	5.0	5.00
-----------	-----	------

K= 17 FIVEXQ(K)= 5.162E-04 FIVEPR(K)= 5.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1224 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Ground Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 10.1 meters

DELTA-T HEIGHTS: 10.1-45.7 meters

SITE EXCLUSION BOUNDARY CALCULATIONS:

FIVE PERCENT OVERALL SITE LIMIT

BUILDING WAKE CREDIT ALLOWED: C= 0.5 A= 2584. D= 54.3

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

1.477E-03	9.797E-04	5.778E-04	4.217E-04	2.109E-04	1.927E-04	1.400E-04	1.218E-04	1.156E-04	8.255E-05
0.035	0.096	0.222	0.241	4.671	5.681	13.817	16.143	16.148	33.845
0.03507	0.09585	0.22210	0.24080	4.67106	5.68102	13.81680	16.14298	16.14766	33.84532
7.306E-05	6.389E-05	6.024E-05	4.576E-05	4.078E-05	3.869E-05	3.092E-05	2.686E-05	2.383E-05	1.903E-05
33.864	51.038	59.146	62.328	63.029	75.995	76.165	84.472	84.477	85.807
33.86403	51.03802	59.14575	62.32759	63.02894	75.99476	76.16543	84.47186	84.47653	85.80677
1.871E-05	1.815E-05	1.399E-05	1.142E-05	1.040E-05	8.732E-06	7.714E-06	6.105E-06	5.947E-06	5.239E-06
86.948	88.121	88.128	89.260	89.276	91.595	91.745	91.757	91.759	93.424
86.94765	88.12126	88.12827	89.25978	89.27615	91.59528	91.74490	91.75658	91.75892	93.42348
4.152E-06	3.540E-06	2.729E-06	1.937E-06	1.191E-06	1.162E-06	7.854E-07	2.642E-07		
95.495	95.689	95.691	98.777	98.780	99.897	99.991	100.000		
95.49483	95.68887	95.69120	98.77720	98.77953	99.89703	99.99052	99.99987		

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
18	1	-6.51806	-9.80595	-0.97009
18	2	-9.40215	-9.60481	-0.48686
18	3	-9.71722	-9.50206	-0.93185
18	4	-10.15982	-9.32390	-1.18425
18	5	-10.52476	-8.14652	-2.34535
18	6	-10.91680	-9.46307	-1.23075
18	7	-14.05704	NUMXQ(K) = 7	

5.268E-04	1.000	1.000
3.419E-04	3.000	3.000
2.719E-04	5.000	5.000
1.911E-04	10.000	10.000
1.507E-04	15.000	15.000
1.247E-04	20.000	20.000
1.060E-04	25.000	25.000
9.164E-05	30.000	30.000
8.129E-05	35.000	35.000
7.624E-05	40.000	40.000
7.165E-05	45.000	45.000
6.740E-05	50.000	50.000
6.341E-05	55.000	55.000
5.901E-05	60.000	60.000
5.219E-05	65.000	65.000
4.584E-05	70.000	70.000
3.985E-05	75.000	75.000
3.295E-05	80.000	80.000
2.549E-05	85.000	85.000
1.604E-05	90.000	90.000

2.719E-04	5.0	5.00
-----------	-----	------

K= 18 FIVEXQ(K)= 2.719E-04 FIVEPR(K)= 5.000

K	HIGHPR	PR	GRNDVT(K)
1	-3.19248	0.07054	7.16050
2	-1.89452	2.90780	3.52922
3	-3.30045	0.04827	3.23970
4	-3.26009	0.05569	2.96101
5	-3.11367	0.09239	3.59423
6	-3.13272	0.08661	3.74028
7	-3.22275	0.06349	4.91057
8	-3.21567	0.06508	6.63198
9	-3.18699	0.07189	8.27142
10	-3.19007	0.07113	4.16751
11	-2.92509	0.17219	4.48639
12	-2.57624	0.49942	6.76889
13	-2.67575	0.37282	8.24935
14	-2.83305	0.23054	9.70638
15	-2.98351	0.14248	11.39525
16	-3.18823	0.07158	11.18732

K	HOURS(K)	TOTHR
1	6.17897	6.17897
2	254.72330	260.90230
3	4.22826	265.13060
4	4.87885	270.00940
5	8.09364	278.10300
6	7.58665	285.68970
7	5.56180	291.25150
8	5.70069	296.95210
9	6.29749	303.24960

Calculation No. PM-1055 Revision 0

Attachment J

Page 1226 of 1411

10	6.23066	309.48030
11	15.08348	324.56380
12	43.74879	368.31260
13	32.65860	400.97120
14	20.19520	421.16640
15	12.48168	433.64800
16	6.27034	439.91840

K	FIVEXQ	SVANN	SLTIME	TIMINT	I	TIME	XQT
1	1.596E-04	3.660E-06	-0.4502	-8.4310	1	8.0	-9.36720
					2	16.0	-9.67927
					3	72.0	-10.35644
					4	624.0	-11.32868
2	1.296E-04	2.400E-06	-0.4757	-8.6213	1	8.0	-9.61057
					2	16.0	-9.94032
					3	72.0	-10.65584
					4	624.0	-11.68316
3	1.335E-04	2.444E-06	-0.4771	-8.5909	1	8.0	-9.58300
					2	16.0	-9.91369
					3	72.0	-10.63127
					4	624.0	-11.66153
4	1.318E-04	2.308E-06	-0.4824	-8.5997	1	8.0	-9.60279
					2	16.0	-9.93716
					3	72.0	-10.66271
					4	624.0	-11.70443
5	1.638E-04	3.105E-06	-0.4729	-8.3888	1	8.0	-9.37231
					2	16.0	-9.70014
					3	72.0	-10.41148
					4	624.0	-11.43281
6	1.620E-04	2.863E-06	-0.4813	-8.3945	1	8.0	-9.39530
					2	16.0	-9.72889
					3	72.0	-10.45275
					4	624.0	-11.49202
7	1.499E-04	2.932E-06	-0.4692	-8.4806	1	8.0	-9.45616
					2	16.0	-9.78136
					3	72.0	-10.48702
					4	624.0	-11.50018
8	1.601E-04	3.492E-06	-0.4562	-8.4235	1	8.0	-9.37217
					2	16.0	-9.68838
					3	72.0	-10.37454
					4	624.0	-11.35969
9	1.662E-04	3.785E-06	-0.4511	-8.3896	1	8.0	-9.32757
					2	16.0	-9.64022
					3	72.0	-10.31864

Calculation No. PM-1055 Revision 0

Attachment J

Page 1227 of 1411

10	1.483E-04	2.548E-06	-0.4846	-8.4806	4	624.0	-11.29270
					1	8.0	-9.48837
					2	16.0	-9.82430
					3	72.0	-10.55325
					4	624.0	-11.59984
11	2.170E-04	3.470E-06	-0.4932	-8.0936	1	8.0	-9.11931
					2	16.0	-9.46119
					3	72.0	-10.20306
					4	624.0	-11.26821
					1	8.0	-8.62570
12	3.463E-04	6.487E-06	-0.4744	-7.6393	2	16.0	-8.95451
					3	72.0	-9.66800
					4	624.0	-10.69239
					1	8.0	-8.73448
					2	16.0	-9.05229
13	3.039E-04	6.501E-06	-0.4585	-7.7810	3	72.0	-9.74193
					4	624.0	-10.73208
					1	8.0	-8.93071
					2	16.0	-9.24157
					3	72.0	-9.91610
14	2.463E-04	5.732E-06	-0.4485	-7.9981	4	624.0	-10.88456
					1	8.0	-9.09929
					2	16.0	-9.39686
					3	72.0	-10.04255
					4	624.0	-10.96962
15	2.026E-04	5.538E-06	-0.4293	-8.2066	1	8.0	-9.39252
					2	16.0	-9.68646
					3	72.0	-10.32428
					4	624.0	-11.24004
					1	8.0	-8.29226
16	1.500E-04	4.285E-06	-0.4241	-8.5107	2	16.0	-8.65387
					3	72.0	-9.43855
					4	624.0	-10.56514
					1	8.0	-8.82721
					2	16.0	-9.13584
17	5.162E-04	6.501E-06	-0.5217	-7.2074	3	72.0	-9.80555
					4	624.0	-10.76709
					1	8.0	-8.82721
					2	16.0	-9.13584
					3	72.0	-9.80555
18	2.719E-04	6.501E-06	-0.4453	-7.9013	4	624.0	-10.76709
					1	8.0	-8.82721
					2	16.0	-9.13584
					3	72.0	-9.80555
					4	624.0	-10.76709

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1228 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 10.1 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.1-45.7 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

RELATIVE CONCENTRATION (X/Q) VALUES (SEC/CUBIC METER)

VERSUS

AVERAGING TIME

HOURS PER YEAR MAX

0-2 HR X/Q IS

EXCEEDED

DOWNWIND

DOWNWIND SECTOR	DISTANCE (METERS)	0-2 HOURS	0-8 HOURS	8-24 HOURS	1-4 DAYS	4-30 DAYS	ANNUAL AVERAGE	IN SECTOR	DOWNWIND SECTOR
S	823.	1.60E-04	8.55E-05	6.26E-05	3.18E-05	1.20E-05	3.66E-06	6.2	S
SSW	823.	1.30E-04	6.70E-05	4.82E-05	2.36E-05	8.43E-06	2.40E-06	254.7	SSW
SW	823.	1.33E-04	6.89E-05	4.95E-05	2.41E-05	8.62E-06	2.44E-06	4.2	SW
WSW	823.	1.32E-04	6.75E-05	4.83E-05	2.34E-05	8.26E-06	2.31E-06	4.9	WSW
W	823.	1.64E-04	8.50E-05	6.13E-05	3.01E-05	1.08E-05	3.11E-06	8.1	W
WNW	823.	1.62E-04	8.31E-05	5.95E-05	2.89E-05	1.02E-05	2.86E-06	7.6	WNW
NW	823.	1.50E-04	7.82E-05	5.65E-05	2.79E-05	1.01E-05	2.93E-06	5.6	NW
NNW	823.	1.60E-04	8.51E-05	6.20E-05	3.12E-05	1.17E-05	3.49E-06	5.7	NNW
N	823.	1.66E-04	8.89E-05	6.51E-05	3.30E-05	1.25E-05	3.79E-06	6.3	N
NNE	823.	1.48E-04	7.57E-05	5.41E-05	2.61E-05	9.17E-06	2.55E-06	6.2	NNE
NE	823.	2.17E-04	1.10E-04	7.78E-05	3.71E-05	1.28E-05	3.47E-06	15.1	NE
ENE	823.	3.46E-04	1.79E-04	1.29E-04	6.33E-05	2.27E-05	6.49E-06	43.7	ENE
E	823.	3.04E-04	1.61E-04	1.17E-04	5.88E-05	2.18E-05	6.50E-06	32.7	E
ESE	823.	2.46E-04	1.32E-04	9.69E-05	4.94E-05	1.87E-05	5.73E-06	20.2	ESE
SE	823.	2.03E-04	1.12E-04	8.30E-05	4.35E-05	1.72E-05	5.54E-06	12.5	SE
SSE	823.	1.50E-04	8.33E-05	6.21E-05	3.28E-05	1.31E-05	4.28E-06	6.3	SSE
MAX X/Q		3.46E-04							
								TOTAL HOURS AROUND SITE:	439.9
SRP 2.3.4	823.	5.16E-04	2.50E-04	1.74E-04	7.96E-05	2.58E-05	6.50E-06		
SITE LIMIT		2.72E-04	1.47E-04	1.08E-04	5.51E-05	2.11E-05	6.50E-06		

0.5 PERCENT X/Q TO AN INDIVIDUAL IS LIMITING.

****NOTE**:** VALUES ON THIS PAGE ARE APPROXIMATIONS ONLY.
 CHECK THE REASONABLENESS OF THE ENVELOPES
 COMPUTED FOR THE 0-2 HOUR VALUES. FOR ANY
 FAULTY ENVELOPES, ADJUST THE ABOVE VALUES.

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1229 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Ground Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 10.1 meters

DELTA-T HEIGHTS: 10.1 45.7 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE S SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	**	CHI/Q	VALUES	(SEC/CUBIC METER)
CLASS	METER/SEC	PERCENT	METERS	METERS			METERS		METERS	METERS	METERS		MEANDER	BLDG	WAKE
AT 10.0 METERS												CA=1292.SQ.METERS			
A	1.6	2.87	7300.	0.			0.		1000.0	1000.0	1000.0		2.039E-07	2.039E-07	2.039E-07
A	3.3	5.49	7300.	0.			0.		1000.0	1000.0	1000.0		9.517E-08	9.514E-08	9.514E-08
A	5.6	0.91	7300.	0.			0.		1000.0	1000.0	1000.0		5.710E-08	5.708E-08	5.708E-08
A	8.2	0.03	7300.	0.			0.		1000.0	1000.0	1000.0		3.858E-08	3.857E-08	3.857E-08
B	1.6	1.96	7300.	0.			0.		848.1	962.0	848.1		2.500E-07	2.498E-07	2.498E-07
B	3.3	4.70	7300.	0.			0.		848.1	962.0	848.1		1.166E-07	1.166E-07	1.166E-07
B	5.6	1.24	7300.	0.			0.		848.1	962.0	848.1		6.999E-08	6.995E-08	6.995E-08
B	8.2	0.07	7300.	0.			0.		848.1	962.0	848.1		4.729E-08	4.727E-08	4.727E-08
C	1.6	1.04	7300.	0.			0.		644.0	373.7	644.0		8.473E-07	8.459E-07	8.459E-07
C	3.3	1.89	7300.	0.			0.		644.0	373.7	644.0		3.954E-07	3.947E-07	3.947E-07
C	5.6	0.52	7300.	0.			0.		644.0	373.7	644.0		2.372E-07	2.368E-07	2.368E-07
C	8.2	0.03	7300.	0.			0.		644.0	373.7	644.0		1.603E-07	1.600E-07	1.600E-07
D	0.2	0.03	7300.	0.			0.		453.5	111.1	515.1		2.494E-05	2.810E-05	2.494E-05
D	1.6	12.70	7300.	0.			0.		453.5	111.1	515.1		3.563E-06	4.014E-06	3.563E-06
D	3.3	18.64	7300.	0.			0.		453.5	111.1	481.0		1.781E-06	1.873E-06	1.781E-06
D	5.6	7.18	7300.	0.			0.		453.5	111.1	456.4		1.126E-06	1.124E-06	1.124E-06
D	8.2	0.75	7300.	0.			0.		453.5	111.1	453.5		7.657E-07	7.595E-07	7.595E-07
D	24.5	0.07	7300.	0.			0.		453.5	111.1	453.5		2.575E-07	2.555E-07	2.555E-07
E	0.2	0.12	7300.	0.			0.		322.5	67.5	410.0		5.173E-05	6.456E-05	5.173E-05
E	1.6	16.88	7300.	0.			0.		322.5	67.5	410.0		7.390E-06	9.223E-06	7.390E-06
E	3.3	14.63	7300.	0.			0.		322.5	67.5	357.4		3.956E-06	4.304E-06	3.956E-06
E	5.6	2.38	7300.	0.			0.		322.5	67.5	325.9		2.603E-06	2.582E-06	2.582E-06
E	8.2	0.13	7300.	0.			0.		322.5	67.5	322.5		1.778E-06	1.745E-06	1.745E-06
E	24.5	0.03	7300.	0.			0.		322.5	67.5	322.5		5.980E-07	5.869E-07	5.869E-07
F	0.2	0.03	7300.	0.			0.		222.6	40.9	313.3		1.117E-04	1.504E-04	1.117E-04
F	1.6	4.24	7300.	0.			0.		222.6	40.9	313.3		1.595E-05	2.148E-05	1.595E-05
F	3.3	0.23	7300.	0.			0.		222.6	40.9	255.8		9.119E-06	1.002E-05	9.119E-06
G	0.2	0.01	7300.	0.			0.		153.6	24.8	257.9		2.237E-04	3.389E-04	2.237E-04
G	1.6	1.14	7300.	0.			0.		153.6	24.8	257.9		3.195E-05	4.842E-05	3.195E-05
G	3.3	0.03	7300.	0.			0.		153.6	24.8	187.1		2.056E-05	2.260E-05	2.056E-05

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1230 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 10.1 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.1 45.7 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

S SECTOR BOUNDARY DISTANCE = 7300.0 METERS

LATERAL PLUME MEANDER/BUILDING WAKE CREDIT ALLOWED

AS A FUNCTION OF DOWNWIND DISTANCE.

MEANDER CREDIT IS FOR WINDSPEEDS LESS THAN 6 MPS.

BUILDING WAKE CREDIT ALLOWED: C= 0.5 A= 2584. D= 54.3

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

2.237E-04	1.117E-04	5.173E-05	3.195E-05	2.494E-05	2.056E-05	1.595E-05	9.119E-06	7.390E-06	3.956E-06
0.009	0.041	0.161	1.304	1.333	1.366	5.610	5.839	22.719	37.346
0.00065	0.00292	0.01154	0.09337	0.09546	0.09780	0.40172	0.41809	1.62677	2.67413
3.563E-06	2.582E-06	1.781E-06	1.745E-06	1.124E-06	8.459E-07	7.595E-07	5.869E-07	3.947E-07	2.555E-07
50.046	52.430	71.073	71.203	78.386	79.431	80.182	80.214	82.108	82.173
3.58356	3.75423	5.08915	5.09850	5.61283	5.68765	5.74142	5.74375	5.87935	5.88403
2.498E-07	2.368E-07	2.039E-07	1.600E-07	1.166E-07	9.514E-08	6.995E-08	5.708E-08	4.727E-08	3.857E-08
84.132	84.655	87.528	87.561	92.262	97.747	98.988	99.902	99.967	100.000
6.02430	6.06171	6.26744	6.26977	6.60643	6.99919	7.08803	7.15349	7.15817	7.16050

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(2) =	1.625
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(3) =	3.580
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(4) =	5.085
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(5) =	5.609
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(6) =	6.264
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(7) =	6.995

K I XQSAVE(K,I) XQINT(K,I) XQSLOP(K,I)
1 1 -8.40538 -15.09581 -1.53422

Calculation No. PM-1055 Revision 0

Attachment J

Page 1231 of 1411

1 2 -11.81533 -16.44928 -2.16721
 1 3 -12.54483 -20.11912 -4.20419
 1 4 -13.23843 -28.87754 -9.55570
 1 5 -13.69861 -62.60479 -30.78827
 1 6 -15.40582 -35.94715 -13.39928
 1 7 -16.16796 NUMXQ(K) = 7

3.702E-05	0.072	1.000
2.223E-05	0.215	3.000
1.722E-05	0.358	5.000
1.192E-05	0.716	10.000
9.470E-06	1.074	15.000
7.987E-06	1.432	20.000
6.797E-06	1.790	25.000
5.776E-06	2.148	30.000
5.015E-06	2.506	35.000
4.425E-06	2.864	40.000
3.953E-06	3.222	45.000
3.567E-06	3.580	50.000
2.970E-06	3.938	55.000
2.504E-06	4.296	60.000
2.134E-06	4.654	65.000
1.837E-06	5.012	70.000
1.385E-06	5.370	75.000
8.224E-07	5.728	80.000
3.221E-07	6.086	85.000
1.685E-07	6.444	90.000
1.447E-05	0.5	6.98

ANNUAL AVERAGE = 1.50E-07

K= 1 FIVEXQ(K) = 1.447E-05 FIVEPR(K) = 6.983

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 01/28/03

Page 1232 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Ground Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 10.1 meters

DELTA-T HEIGHTS: 10.1-45.7 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE SSW SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 10.0 METERS												CA=1292.SQ.METERS		
A	1.6	8.88	7300.	0.	0.	0.	1000.0	1000.0	1000.0	2.039E-07	2.039E-07	2.039E-07		
A	3.3	5.37	7300.	0.	0.	0.	1000.0	1000.0	1000.0	9.517E-08	9.514E-08	9.514E-08		
A	5.6	0.07	7300.	0.	0.	0.	1000.0	1000.0	1000.0	5.710E-08	5.708E-08	5.708E-08		
A	24.5	0.07	7300.	0.	0.	0.	1000.0	1000.0	1000.0	1.298E-08	1.297E-08	1.297E-08		
B	1.6	3.71	7300.	0.	0.	0.	848.1	962.0	848.1	2.500E-07	2.498E-07	2.498E-07		
B	3.3	2.65	7300.	0.	0.	0.	848.1	962.0	848.1	1.166E-07	1.166E-07	1.166E-07		
B	5.6	0.13	7300.	0.	0.	0.	848.1	962.0	848.1	6.999E-08	6.995E-08	6.995E-08		
C	1.6	3.05	7300.	0.	0.	0.	644.0	373.7	644.0	8.473E-07	8.459E-07	8.459E-07		
C	3.3	0.66	7300.	0.	0.	0.	644.0	373.7	644.0	3.954E-07	3.947E-07	3.947E-07		
C	5.6	0.07	7300.	0.	0.	0.	644.0	373.7	644.0	2.372E-07	2.368E-07	2.368E-07		
D	0.2	0.05	7300.	0.	0.	0.	453.5	111.1	515.1	2.494E-05	2.810E-05	2.494E-05		
D	1.6	22.39	7300.	0.	0.	0.	453.5	111.1	515.1	3.563E-06	4.014E-06	3.563E-06		
D	3.3	10.60	7300.	0.	0.	0.	453.5	111.1	481.0	1.781E-06	1.873E-06	1.781E-06		
D	5.6	0.53	7300.	0.	0.	0.	453.5	111.1	456.4	1.126E-06	1.124E-06	1.124E-06		
E	0.2	0.20	7300.	0.	0.	0.	322.5	67.5	410.0	5.173E-05	6.456E-05	5.173E-05		
E	1.6	27.56	7300.	0.	0.	0.	322.5	67.5	410.0	7.390E-06	9.223E-06	7.390E-06		
E	3.3	6.09	7300.	0.	0.	0.	322.5	67.5	357.4	3.956E-06	4.304E-06	3.956E-06		
E	5.6	0.26	7300.	0.	0.	0.	322.5	67.5	325.9	2.603E-06	2.582E-06	2.582E-06		
F	0.2	0.04	7300.	0.	0.	0.	222.6	40.9	313.3	1.117E-04	1.504E-04	1.117E-04		
F	1.6	5.37	7300.	0.	0.	0.	222.6	40.9	313.3	1.595E-05	2.148E-05	1.595E-05		
G	0.2	0.02	7300.	0.	0.	0.	153.6	24.8	257.9	2.237E-04	3.389E-04	2.237E-04		
G	1.6	1.99	7300.	0.	0.	0.	153.6	24.8	257.9	3.195E-05	4.842E-05	3.195E-05		
G	3.3	0.26	7300.	0.	0.	0.	153.6	24.8	187.1	2.056E-05	2.260E-05	2.056E-05		

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1233 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 10.1 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.1 45.7 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

SSW SECTOR BOUNDARY DISTANCE = 7300.0 METERS

LATERAL PLUME MEANDER/BUILDING WAKE CREDIT ALLOWED

AS A FUNCTION OF DOWNWIND DISTANCE.

MEANDER CREDIT IS FOR WINDSPEEDS LESS THAN 6 MPS.

BUILDING WAKE CREDIT ALLOWED: C= 0.5 A= 2584. D= 54.3

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

2.237E-04	1.117E-04	5.173E-05	3.195E-05	2.494E-05	2.056E-05	1.595E-05	7.390E-06	3.956E-06	3.563E-06
0.016	0.056	0.252	2.240	2.291	2.556	7.922	35.479	41.574	63.964
0.00056	0.00197	0.00891	0.07904	0.08087	0.09022	0.27959	1.25214	1.46722	2.25742
2.582E-06	1.781E-06	1.124E-06	8.459E-07	3.947E-07	2.498E-07	2.368E-07	2.039E-07	1.166E-07	9.514E-08
64.229	74.828	75.358	78.405	79.067	82.777	82.843	91.720	94.369	99.735
2.26677	2.64083	2.65954	2.76708	2.79046	2.92138	2.92371	3.23699	3.33050	3.51987
6.995E-08	5.708E-08	1.297E-08							
99.868	99.934	100.000							
3.52455	3.52689	3.52922							

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(2) =	0.079
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(3) =	1.251
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(4) =	2.255
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(5) =	2.638
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(6) =	3.517

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
2	1	-8.40538	-15.33090	-1.57598
2	2	-10.35129	-15.38766	-1.59395

Calculation No. PM-1055 Revision 0

Attachment J

Page 1234 of 1411

2 3 -11.81533 -18.69992 -3.07185
 2 4 -12.54483 -33.33123 -10.37398
 2 5 -13.23843 -57.88254 -23.04991
 2 6 -16.16796 NUMXQ(K) = 6

4.575E-05	0.035	1.000
2.785E-05	0.106	3.000
2.173E-05	0.176	5.000
1.522E-05	0.353	10.000
1.222E-05	0.529	15.000
1.039E-05	0.706	20.000
9.124E-06	0.882	25.000
8.185E-06	1.059	30.000
7.452E-06	1.235	35.000
6.402E-06	1.412	40.000
5.548E-06	1.588	45.000
4.870E-06	1.765	50.000
4.322E-06	1.941	55.000
3.869E-06	2.118	60.000
3.321E-06	2.294	65.000
2.397E-06	2.470	70.000
1.740E-06	2.647	75.000
9.124E-07	2.823	80.000
4.943E-07	3.000	85.000
2.757E-07	3.176	90.000
1.261E-05	0.5	14.17

ANNUAL AVERAGE = 9.86E-08

K= 2 FIVEXQ(K) = 1.261E-05 FIVEPR(K) = 14.167

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 01/28/03

Page 1235 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Ground Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 10.1 meters

DELTA-T HEIGHTS: 10.1-45.7 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE SW SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)			
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG	WAKE	USED
AT 10.0 METERS												CA=1292.SQ.METERS			
A	1.6	10.17	7300.	0.	0.	1000.0	1000.0	1000.0	2.039E-07	2.039E-07	2.039E-07				
A	3.3	2.24	7300.	0.	0.	1000.0	1000.0	1000.0	9.517E-08	9.514E-08	9.514E-08				
A	5.6	0.07	7300.	0.	0.	1000.0	1000.0	1000.0	5.710E-08	5.708E-08	5.708E-08				
A	24.5	0.07	7300.	0.	0.	1000.0	1000.0	1000.0	1.298E-08	1.297E-08	1.297E-08				
B	1.6	4.62	7300.	0.	0.	848.1	962.0	848.1	2.500E-07	2.498E-07	2.498E-07				
B	3.3	0.79	7300.	0.	0.	848.1	962.0	848.1	1.166E-07	1.166E-07	1.166E-07				
C	1.6	1.88	7300.	0.	0.	644.0	373.7	644.0	8.473E-07	8.459E-07	8.459E-07				
C	3.3	0.22	7300.	0.	0.	644.0	373.7	644.0	3.954E-07	3.947E-07	3.947E-07				
D	0.2	0.07	7300.	0.	0.	453.5	111.1	515.1	2.494E-05	2.810E-05	2.494E-05				
D	1.6	31.54	7300.	0.	0.	453.5	111.1	515.1	3.563E-06	4.014E-06	3.563E-06				
D	3.3	4.76	7300.	0.	0.	453.5	111.1	481.0	1.781E-06	1.873E-06	1.781E-06				
E	0.2	0.21	7300.	0.	0.	322.5	67.5	410.0	5.173E-05	6.456E-05	5.173E-05				
E	1.6	29.95	7300.	0.	0.	322.5	67.5	410.0	7.390E-06	9.223E-06	7.390E-06				
E	3.3	5.48	7300.	0.	0.	322.5	67.5	357.4	3.956E-06	4.304E-06	3.956E-06				
E	5.6	0.07	7300.	0.	0.	322.5	67.5	325.9	2.603E-06	2.582E-06	2.582E-06				
F	0.2	0.04	7300.	0.	0.	222.6	40.9	313.3	1.117E-04	1.504E-04	1.117E-04				
F	1.6	5.34	7300.	0.	0.	222.6	40.9	313.3	1.595E-05	2.148E-05	1.595E-05				
F	3.3	0.36	7300.	0.	0.	222.6	40.9	255.8	9.119E-06	1.002E-05	9.119E-06				
G	0.2	0.02	7300.	0.	0.	153.6	24.8	257.9	2.237E-04	3.389E-04	2.237E-04				
G	1.6	2.09	7300.	0.	0.	153.6	24.8	257.9	3.195E-05	4.842E-05	3.195E-05				

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1236 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 10.1 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.1-45.7 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

SW SECTOR BOUNDARY DISTANCE = 7300.0 METERS

LATERAL PLUME MEANDER/BUILDING WAKE CREDIT ALLOWED

AS A FUNCTION OF DOWNWIND DISTANCE.

MEANDER CREDIT IS FOR WINDSPEEDS LESS THAN 6 MPS.

BUILDING WAKE CREDIT ALLOWED: C= 0.5 A= 2584. D= 54.3

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

2.237E-04	1.117E-04	5.173E-05	3.195E-05	2.494E-05	1.595E-05	9.119E-06	7.390E-06	3.956E-06	3.563E-06
0.017	0.056	0.270	2.363	2.436	7.776	8.136	38.084	43.568	75.104
0.00054	0.00183	0.00875	0.07655	0.07891	0.25191	0.26360	1.23381	1.41149	2.43314
2.582E-06	1.781E-06	8.459E-07	3.947E-07	2.498E-07	2.039E-07	1.166E-07	9.514E-08	5.708E-08	1.297E-08
75.176	79.939	81.815	82.031	86.650	96.825	97.619	99.856	99.928	100.000
2.43548	2.58978	2.65056	2.65757	2.80720	3.13684	3.16255	3.23503	3.23737	3.23970

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE

ORDERED X/Q-FREQUENCY VALUES, AND AS

PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(2)=	0.076
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(3)=	1.232
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(4)=	2.431
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(5)=	3.134

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
3	1	-8.40538	-15.35362	-1.57851
3	2	-10.35129	-15.38259	-1.58765
3	3	-11.81533	-17.77768	-2.65362
3	4	-12.54483	-63.60229	-25.89164
3	5	-15.40582	NUMXQ(K)= 5	
		4.681E-05	0.032	1.000
		2.859E-05	0.097	3.000

2.237E-05	0.162	5.000
1.573E-05	0.324	10.000
1.266E-05	0.486	15.000
1.079E-05	0.648	20.000
9.497E-06	0.810	25.000
8.533E-06	0.972	30.000
7.780E-06	1.134	35.000
7.027E-06	1.296	40.000
6.218E-06	1.458	45.000
5.564E-06	1.620	50.000
5.025E-06	1.782	55.000
4.572E-06	1.944	60.000
4.188E-06	2.106	65.000
3.857E-06	2.268	70.000
3.569E-06	2.430	75.000
1.769E-06	2.592	80.000
8.974E-07	2.754	85.000
4.702E-07	2.916	90.000

1.247E-05	0.5	15.43
-----------	-----	-------

ANNUAL AVERAGE = 1.00E-07

K= 3 FIVEXQ(K)= 1.247E-05 FIVEPR(K)=15.434

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 01/28/03

Page 1238 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Ground Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 10.1 meters

DELTA-T HEIGHTS: 10.1-45.7 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE WSW SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 10.0 METERS												CA=1292.SQ.METERS		
A	1.6	11.29	7300.	0.	0.	0.	1000.0	1000.0	1000.0	2.039E-07	2.039E-07	2.039E-07		
A	3.3	2.21	7300.	0.	0.	0.	1000.0	1000.0	1000.0	9.517E-08	9.514E-08	9.514E-08		
B	1.6	5.29	7300.	0.	0.	0.	848.1	962.0	848.1	2.500E-07	2.498E-07	2.498E-07		
B	3.3	1.18	7300.	0.	0.	0.	848.1	962.0	848.1	1.166E-07	1.166E-07	1.166E-07		
C	1.6	3.79	7300.	0.	0.	0.	644.0	373.7	644.0	8.473E-07	8.459E-07	8.459E-07		
C	3.3	0.63	7300.	0.	0.	0.	644.0	373.7	644.0	3.954E-07	3.947E-07	3.947E-07		
D	0.2	0.06	7300.	0.	0.	0.	453.5	111.1	515.1	2.494E-05	2.810E-05	2.494E-05		
D	1.6	25.11	7300.	0.	0.	0.	453.5	111.1	515.1	3.563E-06	4.014E-06	3.563E-06		
D	3.3	2.76	7300.	0.	0.	0.	453.5	111.1	481.0	1.781E-06	1.873E-06	1.781E-06		
E	0.2	0.22	7300.	0.	0.	0.	322.5	67.5	410.0	5.173E-05	6.456E-05	5.173E-05		
E	1.6	30.24	7300.	0.	0.	0.	322.5	67.5	410.0	7.390E-06	9.223E-06	7.390E-06		
E	3.3	5.84	7300.	0.	0.	0.	322.5	67.5	357.4	3.956E-06	4.304E-06	3.956E-06		
F	0.2	0.05	7300.	0.	0.	0.	222.6	40.9	313.3	1.117E-04	1.504E-04	1.117E-04		
F	1.6	7.26	7300.	0.	0.	0.	222.6	40.9	313.3	1.595E-05	2.148E-05	1.595E-05		
F	3.3	0.16	7300.	0.	0.	0.	222.6	40.9	255.8	9.119E-06	1.002E-05	9.119E-06		
G	0.2	0.03	7300.	0.	0.	0.	153.6	24.8	257.9	2.237E-04	3.389E-04	2.237E-04		
G	1.6	3.87	7300.	0.	0.	0.	153.6	24.8	257.9	3.195E-05	4.842E-05	3.195E-05		

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1239 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 10.1 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.1-45.7 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

WSW SECTOR BOUNDARY DISTANCE = 7300.0 METERS

LATERAL PLUME MEANDER/BUILDING WAKE CREDIT ALLOWED

AS A FUNCTION OF DOWNWIND DISTANCE.

MEANDER CREDIT IS FOR WINDSPEEDS LESS THAN 6 MPS.

BUILDING WAKE CREDIT ALLOWED: C= 0.5 A= 2584. D= 54.3

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

2.237E-04	1.117E-04	5.173E-05	3.195E-05	2.494E-05	1.595E-05	9.119E-06	7.390E-06	3.956E-06	3.563E-06
0.031	0.085	0.301	4.169	4.227	11.491	11.649	41.889	47.732	72.839
0.00091	0.00251	0.00890	0.12346	0.12517	0.34026	0.34493	1.24033	1.41334	2.15678
1.781E-06	8.459E-07	3.947E-07	2.498E-07	2.039E-07	1.166E-07	9.514E-08			
75.603	79.393	80.024	85.314	96.605	97.789	100.000			
2.23861	2.35082	2.36953	2.52616	2.86048	2.89555	2.96101			

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE

ORDERED X/Q-FREQUENCY VALUES, AND AS

PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.123
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 1.239
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 2.155

K I XQSAVE(K,I) XQINT(K,I) XQSLOP(K,I)

4 1 -8.40538 -15.02958 -1.54531

4 2 -10.35129 -16.01503 -1.87082

4 3 -11.81533 -19.19168 -3.28591

4 4 -12.54483 NUMXQ(K)= 4

6.002E-05 0.030 1.000

3.718E-05 0.089 3.000

2.881E-05 0.148 5.000

1.910E-05 0.296 10.000

Calculation No. PM-1055 Revision 0**Attachment J****Page 1240 of 1411**

1.482E-05	0.444	15.000
1.230E-05	0.592	20.000
1.060E-05	0.740	25.000
9.356E-06	0.888	30.000
8.401E-06	1.036	35.000
7.640E-06	1.184	40.000
6.746E-06	1.332	45.000
5.889E-06	1.481	50.000
5.198E-06	1.629	55.000
4.632E-06	1.777	60.000
4.161E-06	1.925	65.000
3.763E-06	2.073	70.000
1.374E-05	0.5	16.89

ANNUAL AVERAGE = 9.60E-08

K= 4 FIVEXQ(K)= 1.374E-05 FIVEPR(K)=16.886

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 01/28/03

Page 1241 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Ground Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 10.1 meters

DELTA-T HEIGHTS: 10.1 45.7 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE W SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 10.0 METERS												CA=1292.SQ.METERS		
A	1.6	6.63	7300.	0.	0.	1000.0	1000.0	1000.0	2.039E-07	2.039E-07	2.039E-07	2.039E-07	2.039E-07	2.039E-07
A	3.3	2.86	7300.	0.	0.	1000.0	1000.0	1000.0	9.517E-08	9.514E-08	9.514E-08	9.517E-08	9.514E-08	9.514E-08
A	24.5	0.13	7300.	0.	0.	1000.0	1000.0	1000.0	1.298E-08	1.297E-08	1.297E-08	1.298E-08	1.297E-08	1.297E-08
B	1.6	3.97	7300.	0.	0.	848.1	962.0	848.1	2.500E-07	2.498E-07	2.498E-07	2.500E-07	2.498E-07	2.498E-07
B	3.3	0.78	7300.	0.	0.	848.1	962.0	848.1	1.166E-07	1.166E-07	1.166E-07	1.166E-07	1.166E-07	1.166E-07
B	5.6	0.07	7300.	0.	0.	848.1	962.0	848.1	6.999E-08	6.995E-08	6.995E-08	6.999E-08	6.995E-08	6.995E-08
C	1.6	2.28	7300.	0.	0.	644.0	373.7	644.0	8.473E-07	8.459E-07	8.459E-07	8.473E-07	8.459E-07	8.459E-07
C	3.3	0.59	7300.	0.	0.	644.0	373.7	644.0	3.954E-07	3.947E-07	3.947E-07	3.954E-07	3.947E-07	3.947E-07
C	5.6	0.07	7300.	0.	0.	644.0	373.7	644.0	2.372E-07	2.368E-07	2.368E-07	2.372E-07	2.368E-07	2.368E-07
D	0.2	0.04	7300.	0.	0.	453.5	111.1	515.1	2.494E-05	2.810E-05	2.494E-05	2.494E-05	2.810E-05	2.494E-05
D	1.6	19.25	7300.	0.	0.	453.5	111.1	515.1	3.563E-06	4.014E-06	3.563E-06	3.563E-06	4.014E-06	3.563E-06
D	3.3	4.23	7300.	0.	0.	453.5	111.1	481.0	1.781E-06	1.873E-06	1.781E-06	1.781E-06	1.873E-06	1.781E-06
D	5.6	0.13	7300.	0.	0.	453.5	111.1	456.4	1.126E-06	1.124E-06	1.124E-06	1.126E-06	1.124E-06	1.124E-06
E	0.2	0.24	7300.	0.	0.	322.5	67.5	410.0	5.173E-05	6.456E-05	5.173E-05	5.173E-05	6.456E-05	5.173E-05
E	1.6	33.50	7300.	0.	0.	322.5	67.5	410.0	7.390E-06	9.223E-06	7.390E-06	7.390E-06	9.223E-06	7.390E-06
E	3.3	6.89	7300.	0.	0.	322.5	67.5	357.4	3.956E-06	4.304E-06	3.956E-06	3.956E-06	4.304E-06	3.956E-06
E	5.6	0.39	7300.	0.	0.	322.5	67.5	325.9	2.603E-06	2.582E-06	2.582E-06	2.603E-06	2.582E-06	2.582E-06
F	0.2	0.09	7300.	0.	0.	222.6	40.9	313.3	1.117E-04	1.504E-04	1.117E-04	1.117E-04	1.504E-04	1.117E-04
F	1.6	11.71	7300.	0.	0.	222.6	40.9	313.3	1.595E-05	2.148E-05	1.595E-05	1.595E-05	2.148E-05	1.595E-05
F	3.3	0.20	7300.	0.	0.	222.6	40.9	255.8	9.119E-06	1.002E-05	9.119E-06	9.119E-06	1.002E-05	9.119E-06
G	0.2	0.05	7300.	0.	0.	153.6	24.8	257.9	2.237E-04	3.389E-04	2.237E-04	2.237E-04	3.389E-04	2.237E-04
G	1.6	5.72	7300.	0.	0.	153.6	24.8	257.9	3.195E-05	4.842E-05	3.195E-05	3.195E-05	4.842E-05	3.195E-05
G	3.3	0.20	7300.	0.	0.	153.6	24.8	187.1	2.056E-05	2.260E-05	2.056E-05	2.056E-05	2.260E-05	2.056E-05

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 01/28/03

Page 1242 of 1411

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 10.1 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.1-45.7 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

W SECTOR BOUNDARY DISTANCE = 7300.0 METERS

LATERAL PLUME MEANDER/BUILDING WAKE CREDIT ALLOWED

AS A FUNCTION OF DOWNWIND DISTANCE.

MEANDER CREDIT IS FOR WINDSPEEDS LESS THAN 6 MPS.

BUILDING WAKE CREDIT ALLOWED: C= 0.5 A= 2584. D= 54.3

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

2.237E-04	1.117E-04	5.173E-05	3.195E-05	2.494E-05	2.056E-05	1.595E-05	9.119E-06	7.390E-06	3.956E-06
0.045	0.133	0.372	6.096	6.140	6.335	18.043	18.238	51.737	58.631
0.00163	0.00477	0.01336	0.21909	0.22069	0.22770	0.64852	0.65553	1.85954	2.10735
3.563E-06	2.582E-06	1.781E-06	1.124E-06	8.459E-07	3.947E-07	2.498E-07	2.368E-07	2.039E-07	1.166E-07
77.885	78.275	82.503	82.633	84.910	85.495	89.463	89.528	96.162	96.943
2.79936	2.81339	2.96535	2.97002	3.05185	3.07289	3.21550	3.21784	3.45630	3.48435
9.514E-08	6.995E-08	1.297E-08							
99.805	99.870	100.000							
3.58722	3.58956	3.59423							

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(2) =	0.219
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(3) =	0.648
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(4) =	1.858
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(5) =	2.797
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(6) =	2.963
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(7) =	3.453

K I XQSAVE(K,I) XQINT(K,I) XQSLOP(K,I)

5 1 -8.40538 -14.60021 -1.49104

Calculation No. PM-1055 Revision 0**Attachment J****Page 1243 of 1411**

5 2 -10.35129 -15.77918 -1.90477
5 3 -11.04582 -15.81571 -1.91947
5 4 -11.81533 -20.62666 -4.22787
5 5 -12.54483 -65.09892 -27.49278
5 6 -13.23843 -73.07284 -31.71999
5 7 -15.40582 NUMXQ(K) = 7

7.072E-05	0.036	1.000
4.425E-05	0.108	3.000
3.507E-05	0.180	5.000
2.350E-05	0.359	10.000
1.806E-05	0.539	15.000
1.486E-05	0.719	20.000
1.271E-05	0.899	25.000
1.115E-05	1.078	30.000
9.957E-06	1.258	35.000
9.009E-06	1.438	40.000
8.236E-06	1.617	45.000
7.590E-06	1.797	50.000
6.646E-06	1.977	55.000
5.705E-06	2.157	60.000
4.948E-06	2.336	65.000
4.330E-06	2.516	70.000
3.819E-06	2.696	75.000
2.583E-06	2.875	80.000
1.173E-06	3.055	85.000
5.240E-07	3.235	90.000
1.898E-05	0.5	13.91

ANNUAL AVERAGE = 1.35E-07

K= 5 FIVEXQ(K) = 1.898E-05 FIVEPR(K) = 13.911

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1244 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Ground Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 10.1 meters

DELTA-T HEIGHTS: 10.1-45.7 meters.

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE WNW SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 10.0 METERS												CA=1292.SQ.METERS		
A	1.6	4.94	7300.	0.	0.	1000.0	1000.0	1000.0	2.039E-07	2.039E-07	2.039E-07			
A	3.3	6.06	7300.	0.	0.	1000.0	1000.0	1000.0	9.517E-08	9.514E-08	9.514E-08			
A	5.6	0.50	7300.	0.	0.	1000.0	1000.0	1000.0	5.710E-08	5.708E-08	5.708E-08			
B	1.6	2.75	7300.	0.	0.	848.1	962.0	848.1	2.500E-07	2.498E-07	2.498E-07			
B	3.3	1.94	7300.	0.	0.	848.1	962.0	848.1	1.166E-07	1.166E-07	1.166E-07			
B	5.6	0.38	7300.	0.	0.	848.1	962.0	848.1	6.999E-08	6.995E-08	6.995E-08			
C	1.6	1.69	7300.	0.	0.	644.0	373.7	644.0	8.473E-07	8.459E-07	8.459E-07			
C	3.3	0.63	7300.	0.	0.	644.0	373.7	644.0	3.954E-07	3.947E-07	3.947E-07			
C	5.6	0.06	7300.	0.	0.	644.0	373.7	644.0	2.372E-07	2.368E-07	2.368E-07			
C	8.2	0.06	7300.	0.	0.	644.0	373.7	644.0	1.603E-07	1.600E-07	1.600E-07			
D	0.2	0.03	7300.	0.	0.	453.5	111.1	515.1	2.494E-05	2.810E-05	2.494E-05			
D	1.6	10.94	7300.	0.	0.	453.5	111.1	515.1	3.563E-06	4.014E-06	3.563E-06			
D	3.3	9.06	7300.	0.	0.	453.5	111.1	481.0	1.781E-06	1.873E-06	1.781E-06			
D	5.6	0.50	7300.	0.	0.	453.5	111.1	456.4	1.126E-06	1.124E-06	1.124E-06			
E	0.2	0.21	7300.	0.	0.	322.5	67.5	410.0	5.173E-05	6.456E-05	5.173E-05			
E	1.6	29.38	7300.	0.	0.	322.5	67.5	410.0	7.390E-06	9.223E-06	7.390E-06			
E	3.3	11.06	7300.	0.	0.	322.5	67.5	357.4	3.956E-06	4.304E-06	3.956E-06			
E	5.6	1.06	7300.	0.	0.	322.5	67.5	325.9	2.603E-06	2.582E-06	2.582E-06			
F	0.2	0.10	7300.	0.	0.	222.6	40.9	313.3	1.117E-04	1.504E-04	1.117E-04			
F	1.6	14.00	7300.	0.	0.	222.6	40.9	313.3	1.595E-05	2.148E-05	1.595E-05			
F	3.3	0.88	7300.	0.	0.	222.6	40.9	255.8	9.119E-06	1.002E-05	9.119E-06			
G	0.2	0.03	7300.	0.	0.	153.6	24.8	257.9	2.237E-04	3.389E-04	2.237E-04			
G	1.6	3.44	7300.	0.	0.	153.6	24.8	257.9	3.195E-05	4.842E-05	3.195E-05			
G	3.3	0.31	7300.	0.	0.	153.6	24.8	187.1	2.056E-05	2.260E-05	2.056E-05			

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1245 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 10.1 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.1 45.7 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

WNW SECTOR BOUNDARY DISTANCE = 7300.0 METERS

LATERAL PLUME MEANDER/BUILDING WAKE CREDIT ALLOWED

AS A FUNCTION OF DOWNWIND DISTANCE.

MEANDER CREDIT IS FOR WINDSPEEDS LESS THAN 6 MPS.

BUILDING WAKE CREDIT ALLOWED: C= 0.5 A= 2584. D= 54.3

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

2.237E-04	1.117E-04	5.173E-05	3.195E-05	2.494E-05	2.056E-05	1.595E-05	9.119E-06	7.390E-06	3.956E-06
0.027	0.132	0.341	3.779	3.804	4.117	18.118	18.993	48.371	59.434
0.00102	0.00493	0.01277	0.14135	0.14230	0.15398	0.67767	0.71040	1.80920	2.22300
3.563E-06	2.582E-06	1.781E-06	1.124E-06	8.459E-07	3.947E-07	2.498E-07	2.368E-07	2.039E-07	1.600E-07
70.373	71.435	80.498	80.998	82.686	83.311	86.061	86.124	91.062	91.124
2.63213	2.67187	3.01086	3.02956	3.09269	3.11606	3.21893	3.22127	3.40596	3.40830
1.166E-07	9.514E-08	6.995E-08	5.708E-08						
93.062	99.125	99.500	100.000						
3.48077	3.70755	3.72157	3.74028						

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(2) =	0.677
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(3) =	1.807
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(4) =	2.630
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(5) =	3.008
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(6) =	3.704

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
6	1	-8.40538	-14.68508	-1.47380
6	2	-11.04582	-16.12625	-2.05743

Calculation No. PM-1055 Revision 0**Attachment J****Page 1246 of 1411**

6 3 -11.81533 -21.54951 -4.64573
6 4 -12.54483 -35.46656 -11.82587
6 5 -13.23843 -72.10627 -31.31903
6 6 -16.16796 NUMXQ(K)= 6

6.030E-05	0.037	1.000
3.789E-05	0.112	3.000
3.008E-05	0.187	5.000
2.160E-05	0.374	10.000
1.761E-05	0.561	15.000
1.483E-05	0.748	20.000
1.253E-05	0.935	25.000
1.088E-05	1.122	30.000
9.630E-06	1.309	35.000
8.646E-06	1.496	40.000
7.849E-06	1.683	45.000
6.941E-06	1.870	50.000
5.784E-06	2.057	55.000
4.885E-06	2.244	60.000
4.174E-06	2.431	65.000
3.601E-06	2.618	70.000
2.570E-06	2.805	75.000
1.839E-06	2.992	80.000
8.366E-07	3.179	85.000
3.754E-07	3.366	90.000

1.868E-05	0.5	13.37
-----------	-----	-------

ANNUAL AVERAGE = 1.27E-07

K= 6 FIVEXQ(K)= 1.868E-05 FIVEPR(K)=13.368

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 01/28/03

Page 1247 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Ground Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 10.1 meters

DELTA-T HEIGHTS: 10.1-45.7 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE NW SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 10.0 METERS												CA=1292.SQ.METERS		
A	1.6	2.38	7300.	0.	0.	0.	1000.0	1000.0	1000.0	2.039E-07	2.039E-07	2.039E-07		
A	3.3	5.19	7300.	0.	0.	0.	1000.0	1000.0	1000.0	9.517E-08	9.514E-08	9.514E-08		
A	5.6	0.29	7300.	0.	0.	0.	1000.0	1000.0	1000.0	5.710E-08	5.708E-08	5.708E-08		
B	1.6	1.10	7300.	0.	0.	0.	848.1	962.0	848.1	2.500E-07	2.498E-07	2.498E-07		
B	3.3	2.67	7300.	0.	0.	0.	848.1	962.0	848.1	1.166E-07	1.166E-07	1.166E-07		
B	5.6	0.43	7300.	0.	0.	0.	848.1	962.0	848.1	6.999E-08	6.995E-08	6.995E-08		
B	24.5	0.05	7300.	0.	0.	0.	848.1	962.0	848.1	1.591E-08	1.590E-08	1.590E-08		
C	1.6	0.52	7300.	0.	0.	0.	644.0	373.7	644.0	8.473E-07	8.459E-07	8.459E-07		
C	3.3	1.57	7300.	0.	0.	0.	644.0	373.7	644.0	3.954E-07	3.947E-07	3.947E-07		
C	5.6	0.24	7300.	0.	0.	0.	644.0	373.7	644.0	2.372E-07	2.368E-07	2.368E-07		
D	0.2	0.02	7300.	0.	0.	0.	453.5	111.1	515.1	2.494E-05	2.810E-05	2.494E-05		
D	1.6	7.33	7300.	0.	0.	0.	453.5	111.1	515.1	3.563E-06	4.014E-06	3.563E-06		
D	3.3	18.14	7300.	0.	0.	0.	453.5	111.1	481.0	1.781E-06	1.873E-06	1.781E-06		
D	5.6	3.67	7300.	0.	0.	0.	453.5	111.1	456.4	1.126E-06	1.124E-06	1.124E-06		
D	8.2	0.10	7300.	0.	0.	0.	453.5	111.1	453.5	7.657E-07	7.595E-07	7.595E-07		
E	0.2	0.18	7300.	0.	0.	0.	322.5	67.5	410.0	5.173E-05	6.456E-05	5.173E-05		
E	1.6	25.85	7300.	0.	0.	0.	322.5	67.5	410.0	7.390E-06	9.223E-06	7.390E-06		
E	3.3	18.81	7300.	0.	0.	0.	322.5	67.5	357.4	3.956E-06	4.304E-06	3.956E-06		
E	5.6	2.48	7300.	0.	0.	0.	322.5	67.5	325.9	2.603E-06	2.582E-06	2.582E-06		
E	8.2	0.05	7300.	0.	0.	0.	322.5	67.5	322.5	1.778E-06	1.745E-06	1.745E-06		
F	0.2	0.05	7300.	0.	0.	0.	222.6	40.9	313.3	1.117E-04	1.504E-04	1.117E-04		
F	1.6	6.14	7300.	0.	0.	0.	222.6	40.9	313.3	1.595E-05	2.148E-05	1.595E-05		
F	3.3	1.14	7300.	0.	0.	0.	222.6	40.9	255.8	9.119E-06	1.002E-05	9.119E-06		
G	0.2	0.01	7300.	0.	0.	0.	153.6	24.8	257.9	2.237E-04	3.389E-04	2.237E-04		
G	1.6	1.52	7300.	0.	0.	0.	153.6	24.8	257.9	3.195E-05	4.842E-05	3.195E-05		
G	3.3	0.10	7300.	0.	0.	0.	153.6	24.8	187.1	2.056E-05	2.260E-05	2.056E-05		

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1248 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 10.1 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.1-45.7 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

NW SECTOR BOUNDARY DISTANCE = 7300.0 METERS

LATERAL PLUME MEANDER/BUILDING WAKE CREDIT ALLOWED

AS A FUNCTION OF DOWNWIND DISTANCE.

MEANDER CREDIT IS FOR WINDSPEEDS LESS THAN 6 MPS.

BUILDING WAKE CREDIT ALLOWED: C= 0.5 A= 2584. D= 54.3

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

2.237E-04	1.117E-04	5.173E-05	3.195E-05	2.494E-05	2.056E-05	1.595E-05	9.119E-06	7.390E-06	3.956E-06
0.012	0.058	0.242	1.766	1.783	1.878	8.020	9.162	35.014	53.819
0.00059	0.00285	0.01190	0.08671	0.08754	0.09222	0.39380	0.44991	1.71938	2.64283
3.563E-06	2.582E-06	1.781E-06	1.745E-06	1.124E-06	8.459E-07	7.595E-07	3.947E-07	2.498E-07	2.368E-07
61.151	63.627	81.766	81.813	85.479	86.003	86.098	87.669	88.764	89.002
3.00287	3.12443	4.01516	4.01750	4.19752	4.22323	4.22791	4.30506	4.35883	4.37052
2.039E-07	1.166E-07	9.514E-08	6.995E-08	5.708E-08	1.590E-08				
91.383	94.049	99.238	99.667	99.952	100.000				
4.48741	4.61833	4.87316	4.89420	4.90823	4.91057				

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(2)=	1.717
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(3)=	3.000
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(4)=	4.012
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(5)=	4.194
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(6)=	4.870

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
7	1	-8.40538	-15.00167	-1.50587
7	2	-11.81533	-18.37962	-3.10230

Calculation No. PM-1055 Revision 0**Attachment J****Page 1249 of 1411**

7 3 -12.54483 -22.46722 -5.27565
7 4 -13.23843 -52.08302 -22.20554
7 5 -13.69861 -73.85634 -34.80150
7 6 -16.16796 NUMXQ(K)= 6

4.368E-05	0.049	1.000
2.689E-05	0.147	3.000
2.112E-05	0.246	5.000
1.492E-05	0.491	10.000
1.203E-05	0.737	15.000
1.026E-05	0.982	20.000
9.027E-06	1.228	25.000
8.110E-06	1.473	30.000
7.392E-06	1.719	35.000
6.245E-06	1.964	40.000
5.365E-06	2.210	45.000
4.672E-06	2.455	50.000
4.114E-06	2.701	55.000
3.657E-06	2.946	60.000
3.089E-06	3.192	65.000
2.592E-06	3.437	70.000
2.197E-06	3.683	75.000
1.879E-06	3.928	80.000
1.192E-06	4.174	85.000
4.830E-07	4.420	90.000
1.478E-05	0.5	10.18

ANNUAL AVERAGE = 1.27E-07

K= 7 FIVEXQ(K)= 1.478E-05 FIVEPR(K)=10.182

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 01/28/03

Page 1250 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Ground Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 10.1 meters

DELTA-T HEIGHTS: 10.1 45.7 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE NNW SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 10.0 METERS												CA=1292.SQ.METERS		
A	1.6	1.13	7300.	0.	0.	1000.0	1000.0	1000.0	2.039E-07	2.039E-07	2.039E-07			
A	3.3	2.78	7300.	0.	0.	1000.0	1000.0	1000.0	9.517E-08	9.514E-08	9.514E-08			
A	5.6	1.02	7300.	0.	0.	1000.0	1000.0	1000.0	5.710E-08	5.708E-08	5.708E-08			
A	8.2	0.18	7300.	0.	0.	1000.0	1000.0	1000.0	3.858E-08	3.857E-08	3.857E-08			
B	1.6	0.46	7300.	0.	0.	848.1	962.0	848.1	2.500E-07	2.498E-07	2.498E-07			
B	3.3	2.54	7300.	0.	0.	848.1	962.0	848.1	1.166E-07	1.166E-07	1.166E-07			
B	5.6	1.20	7300.	0.	0.	848.1	962.0	848.1	6.999E-08	6.995E-08	6.995E-08			
B	8.2	0.25	7300.	0.	0.	848.1	962.0	848.1	4.729E-08	4.727E-08	4.727E-08			
C	1.6	0.18	7300.	0.	0.	644.0	373.7	644.0	8.473E-07	8.459E-07	8.459E-07			
C	3.3	1.87	7300.	0.	0.	644.0	373.7	644.0	3.954E-07	3.947E-07	3.947E-07			
C	5.6	0.60	7300.	0.	0.	644.0	373.7	644.0	2.372E-07	2.368E-07	2.368E-07			
C	8.2	0.11	7300.	0.	0.	644.0	373.7	644.0	1.603E-07	1.600E-07	1.600E-07			
C	10.7	0.04	7300.	0.	0.	644.0	373.7	644.0	1.236E-07	1.234E-07	1.234E-07			
D	0.2	0.02	7300.	0.	0.	453.5	111.1	515.1	2.494E-05	2.810E-05	2.494E-05			
D	1.6	8.07	7300.	0.	0.	453.5	111.1	515.1	3.563E-06	4.014E-06	3.563E-06			
D	3.3	20.87	7300.	0.	0.	453.5	111.1	481.0	1.781E-06	1.873E-06	1.781E-06			
D	5.6	5.29	7300.	0.	0.	453.5	111.1	456.4	1.126E-06	1.124E-06	1.124E-06			
D	8.2	0.42	7300.	0.	0.	453.5	111.1	453.5	7.657E-07	7.595E-07	7.595E-07			
E	0.2	0.15	7300.	0.	0.	322.5	67.5	410.0	5.173E-05	6.456E-05	5.173E-05			
E	1.6	21.15	7300.	0.	0.	322.5	67.5	410.0	7.390E-06	9.223E-06	7.390E-06			
E	3.3	23.87	7300.	0.	0.	322.5	67.5	357.4	3.956E-06	4.304E-06	3.956E-06			
E	5.6	2.50	7300.	0.	0.	322.5	67.5	325.9	2.603E-06	2.582E-06	2.582E-06			
E	8.2	0.21	7300.	0.	0.	322.5	67.5	322.5	1.778E-06	1.745E-06	1.745E-06			
F	0.2	0.03	7300.	0.	0.	222.6	40.9	313.3	1.117E-04	1.504E-04	1.117E-04			
F	1.6	3.49	7300.	0.	0.	222.6	40.9	313.3	1.595E-05	2.148E-05	1.595E-05			
F	3.3	0.63	7300.	0.	0.	222.6	40.9	255.8	9.119E-06	1.002E-05	9.119E-06			
G	0.2	0.01	7300.	0.	0.	153.6	24.8	257.9	2.237E-04	3.389E-04	2.237E-04			
G	1.6	0.95	7300.	0.	0.	153.6	24.8	257.9	3.195E-05	4.842E-05	3.195E-05			

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1251 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 10.1 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.1-45.7 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

NNW SECTOR BOUNDARY DISTANCE = 7300.0 METERS

LATERAL PLUME MEANDER/BUILDING WAKE CREDIT ALLOWED

AS A FUNCTION OF DOWNWIND DISTANCE.

MEANDER CREDIT IS FOR WINDSPEEDS LESS THAN 6 MPS.

BUILDING WAKE CREDIT ALLOWED: C= 0.5 A= 2584. D= 54.3

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

2.237E-04	1.117E-04	5.173E-05	3.195E-05	2.494E-05	1.595E-05	9.119E-06	7.390E-06	3.956E-06	3.563E-06
0.008	0.034	0.184	1.136	1.155	4.645	5.279	26.430	50.295	58.368
0.00050	0.00223	0.01224	0.07536	0.07659	0.30804	0.35012	1.75284	3.33558	3.87095
2.582E-06	1.781E-06	1.745E-06	1.124E-06	8.459E-07	7.595E-07	3.947E-07	2.498E-07	2.368E-07	2.039E-07
60.871	81.740	81.951	87.239	87.415	87.838	89.707	90.165	90.764	91.892
4.03694	5.42096	5.43499	5.78567	5.79736	5.82541	5.94932	5.97971	6.01945	6.09427
1.600E-07	1.234E-07	1.166E-07	9.514E-08	6.995E-08	5.708E-08	4.727E-08	3.857E-08		
91.998	92.033	94.571	97.356	98.555	99.577	99.824	100.000		
6.10128	6.10362	6.27194	6.45663	6.53612	6.60392	6.62029	6.63197		

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(2)=	1.751
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(3)=	3.868
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(4)=	5.417
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(5)=	5.782
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(6)=	6.268
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(7)=	6.453

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
8	1	-8.40538	-14.92852	-1.47675

Calculation No. PM-1055 Revision 0

Attachment J

Page 1252 of 1411

8 2 -11.81533 -16.31359 -2.13376
 8 3 -12.54483 -20.17421 -4.31952
 8 4 -13.23843 -36.09462 -14.23456
 8 5 -13.69861 -101.29270 -55.67347
 8 6 -15.96463 -37.00098 -13.72546
 8 7 -16.16796 NUMXQ(K) = 7

3.764E-05	0.066	1.000
2.311E-05	0.199	3.000
1.811E-05	0.332	5.000
1.274E-05	0.663	10.000
1.024E-05	0.995	15.000
8.703E-06	1.326	20.000
7.639E-06	1.658	25.000
6.617E-06	1.990	30.000
5.768E-06	2.321	35.000
5.106E-06	2.653	40.000
4.576E-06	2.984	45.000
4.141E-06	3.316	50.000
3.777E-06	3.648	55.000
3.372E-06	3.979	60.000
2.869E-06	4.311	65.000
2.465E-06	4.642	70.000
2.136E-06	4.974	75.000
1.864E-06	5.306	80.000
1.352E-06	5.637	85.000
4.708E-07	5.969	90.000
1.475E-05	0.5	7.54

ANNUAL AVERAGE = 1.49E-07

K= 8 FIVEXQ(K) = 1.475E-05 FIVEPR(K) = 7.539

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1253 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Ground Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 10.1 meters

DELTA-T HEIGHTS: 10.1 45.7 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE N SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 10.0 METERS												CA=1292.SQ.METERS		
A	1.6	0.23	7300.	0.	0.	0.	1000.0	1000.0	1000.0	2.039E-07	2.039E-07	2.039E-07		
A	3.3	2.01	7300.	0.	0.	0.	1000.0	1000.0	1000.0	9.517E-08	9.514E-08	9.514E-08		
A	5.6	2.77	7300.	0.	0.	0.	1000.0	1000.0	1000.0	5.710E-08	5.708E-08	5.708E-08		
A	8.2	0.37	7300.	0.	0.	0.	1000.0	1000.0	1000.0	3.858E-08	3.857E-08	3.857E-08		
B	1.6	0.34	7300.	0.	0.	0.	848.1	962.0	848.1	2.500E-07	2.498E-07	2.498E-07		
B	3.3	2.57	7300.	0.	0.	0.	848.1	962.0	848.1	1.166E-07	1.166E-07	1.166E-07		
B	5.6	4.10	7300.	0.	0.	0.	848.1	962.0	848.1	6.999E-08	6.995E-08	6.995E-08		
B	8.2	0.62	7300.	0.	0.	0.	848.1	962.0	848.1	4.729E-08	4.727E-08	4.727E-08		
C	1.6	0.17	7300.	0.	0.	0.	644.0	373.7	644.0	8.473E-07	8.459E-07	8.459E-07		
C	3.3	1.87	7300.	0.	0.	0.	644.0	373.7	644.0	3.954E-07	3.947E-07	3.947E-07		
C	5.6	2.12	7300.	0.	0.	0.	644.0	373.7	644.0	2.372E-07	2.368E-07	2.368E-07		
C	8.2	0.23	7300.	0.	0.	0.	644.0	373.7	644.0	1.603E-07	1.600E-07	1.600E-07		
D	0.2	0.01	7300.	0.	0.	0.	453.5	111.1	515.1	2.494E-05	2.810E-05	2.494E-05		
D	1.6	5.00	7300.	0.	0.	0.	453.5	111.1	515.1	3.563E-06	4.014E-06	3.563E-06		
D	3.3	15.38	7300.	0.	0.	0.	453.5	111.1	481.0	1.781E-06	1.873E-06	1.781E-06		
D	5.6	9.19	7300.	0.	0.	0.	453.5	111.1	456.4	1.126E-06	1.124E-06	1.124E-06		
D	8.2	1.27	7300.	0.	0.	0.	453.5	111.1	453.5	7.657E-07	7.595E-07	7.595E-07		
E	0.2	0.13	7300.	0.	0.	0.	322.5	67.5	410.0	5.173E-05	6.456E-05	5.173E-05		
E	1.6	17.92	7300.	0.	0.	0.	322.5	67.5	410.0	7.390E-06	9.223E-06	7.390E-06		
E	3.3	21.79	7300.	0.	0.	0.	322.5	67.5	357.4	3.956E-06	4.304E-06	3.956E-06		
E	5.6	5.71	7300.	0.	0.	0.	322.5	67.5	325.9	2.603E-06	2.582E-06	2.582E-06		
E	8.2	0.71	7300.	0.	0.	0.	322.5	67.5	322.5	1.778E-06	1.745E-06	1.745E-06		
E	10.7	0.03	7300.	0.	0.	0.	322.5	67.5	322.5	1.370E-06	1.345E-06	1.345E-06		
F	0.2	0.03	7300.	0.	0.	0.	222.6	40.9	313.3	1.117E-04	1.504E-04	1.117E-04		
F	1.6	3.42	7300.	0.	0.	0.	222.6	40.9	313.3	1.595E-05	2.148E-05	1.595E-05		
F	3.3	1.38	7300.	0.	0.	0.	222.6	40.9	255.8	9.119E-06	1.002E-05	9.119E-06		
G	0.2	0.01	7300.	0.	0.	0.	153.6	24.8	257.9	2.237E-04	3.389E-04	2.237E-04		
G	1.6	0.65	7300.	0.	0.	0.	153.6	24.8	257.9	3.195E-05	4.842E-05	3.195E-05		

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1254 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 10.1 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.1-45.7 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

N SECTOR BOUNDARY DISTANCE = 7300.0 METERS

LATERAL PLUME MEANDER/BUILDING WAKE CREDIT ALLOWED

AS A FUNCTION OF DOWNWIND DISTANCE.

MEANDER CREDIT IS FOR WINDSPEEDS LESS THAN 6 MPS.

BUILDING WAKE CREDIT ALLOWED: C= 0.5 A= 2584. D= 54.3

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

2.237E-04	1.117E-04	5.173E-05	3.195E-05	2.494E-05	1.595E-05	9.119E-06	7.390E-06	3.956E-06	3.563E-06
0.005	0.031	0.159	0.809	0.820	4.240	5.625	23.545	45.337	50.339
0.00043	0.00254	0.01311	0.06688	0.06784	0.35072	0.46528	1.94748	3.74998	4.16378
2.582E-06	1.781E-06	1.745E-06	1.345E-06	1.124E-06	8.459E-07	7.595E-07	3.947E-07	2.498E-07	2.368E-07
56.049	71.425	72.131	72.160	81.345	81.515	82.787	84.652	84.992	87.111
4.63603	5.90783	5.96628	5.96862	6.72843	6.74245	6.84766	7.00196	7.03001	7.20535
2.039E-07	1.600E-07	1.166E-07	9.514E-08	6.995E-08	5.708E-08	4.727E-08	3.857E-08		
87.338	87.564	90.136	92.143	96.241	99.011	99.633	100.000		
7.22405	7.24276	7.45550	7.62149	7.96048	8.18959	8.24103	8.27142		

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(2)=	1.945
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(3)=	4.160
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(4)=	5.904
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(5)=	5.962
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(6)=	6.725
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(7)=	8.186

K I XQSAVE(K,I) XQINT(K,I) XQSLOP(K,I)

9 1 -8.40538 -14.76598 -1.42878

Calculation No. PM-1055 Revision 0**Attachment J****Page 1255 of 1411**

9 2 -11.81533 -16.34240 -2.19212
9 3 -12.54483 -19.63423 -4.09230
9 4 -13.23843 -19.67864 -4.12072
9 5 -13.25883 -24.43392 -7.17302
9 6 -13.69861 -56.60621 -28.66959
9 7 -16.67879 NUMXQ(K) = 7

3.464E-05	0.083	1.000
2.142E-05	0.248	3.000
1.683E-05	0.414	5.000
1.188E-05	0.827	10.000
9.552E-06	1.241	15.000
8.125E-06	1.654	20.000
7.000E-06	2.068	25.000
5.915E-06	2.481	30.000
5.110E-06	2.895	35.000
4.488E-06	3.309	40.000
3.993E-06	3.722	45.000
3.588E-06	4.136	50.000
3.003E-06	4.549	55.000
2.531E-06	4.963	60.000
2.157E-06	5.376	65.000
1.856E-06	5.790	70.000
1.515E-06	6.204	75.000
1.196E-06	6.617	80.000
5.841E-07	7.031	85.000
2.469E-07	7.444	90.000
1.534E-05	0.5	6.04

ANNUAL AVERAGE = 1.62E-07

K= 9 FIVEXQ(K) = 1.534E-05 FIVEPR(K) = 6.045

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1256 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Ground Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 10.1 meters

DELTA-T HEIGHTS: 10.1-45.7 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE NNE SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN HT	EFF PLUME HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 10.0 METERS						CA=1292.SQ.METERS					
A	1.6	0.17	7300.	0.	0.	1000.0	1000.0	1000.0	2.039E-07	2.039E-07	2.039E-07
A	3.3	2.41	7300.	0.	0.	1000.0	1000.0	1000.0	9.517E-08	9.514E-08	9.514E-08
A	5.6	1.74	7300.	0.	0.	1000.0	1000.0	1000.0	5.710E-08	5.708E-08	5.708E-08
A	8.2	0.06	7300.	0.	0.	1000.0	1000.0	1000.0	3.858E-08	3.857E-08	3.857E-08
B	1.6	0.11	7300.	0.	0.	848.1	962.0	848.1	2.500E-07	2.498E-07	2.498E-07
B	3.3	2.52	7300.	0.	0.	848.1	962.0	848.1	1.166E-07	1.166E-07	1.166E-07
B	5.6	2.58	7300.	0.	0.	848.1	962.0	848.1	6.999E-08	6.995E-08	6.995E-08
B	8.2	0.06	7300.	0.	0.	848.1	962.0	848.1	4.729E-08	4.727E-08	4.727E-08
C	3.3	1.35	7300.	0.	0.	644.0	373.7	644.0	3.954E-07	3.947E-07	3.947E-07
C	5.6	1.74	7300.	0.	0.	644.0	373.7	644.0	2.372E-07	2.368E-07	2.368E-07
D	0.2	0.01	7300.	0.	0.	453.5	111.1	515.1	2.494E-05	2.810E-05	2.494E-05
D	1.6	5.16	7300.	0.	0.	453.5	111.1	515.1	3.563E-06	4.014E-06	3.563E-06
D	3.3	13.07	7300.	0.	0.	453.5	111.1	481.0	1.781E-06	1.873E-06	1.781E-06
D	5.6	6.06	7300.	0.	0.	453.5	111.1	456.4	1.126E-06	1.124E-06	1.124E-06
D	8.2	0.56	7300.	0.	0.	453.5	111.1	453.5	7.657E-07	7.595E-07	7.595E-07
D	10.7	0.11	7300.	0.	0.	453.5	111.1	453.5	5.902E-07	5.854E-07	5.854E-07
E	0.2	0.15	7300.	0.	0.	322.5	67.5	410.0	5.173E-05	6.456E-05	5.173E-05
E	1.6	21.04	7300.	0.	0.	322.5	67.5	410.0	7.390E-06	9.223E-06	7.390E-06
E	3.3	21.93	7300.	0.	0.	322.5	67.5	357.4	3.956E-06	4.304E-06	3.956E-06
E	5.6	3.03	7300.	0.	0.	322.5	67.5	325.9	2.603E-06	2.582E-06	2.582E-06
E	8.2	0.22	7300.	0.	0.	322.5	67.5	322.5	1.778E-06	1.745E-06	1.745E-06
F	0.2	0.08	7300.	0.	0.	222.6	40.9	313.3	1.117E-04	1.504E-04	1.117E-04
F	1.6	11.00	7300.	0.	0.	222.6	40.9	313.3	1.595E-05	2.148E-05	1.595E-05
F	3.3	2.58	7300.	0.	0.	222.6	40.9	255.8	9.119E-06	1.002E-05	9.119E-06
G	0.2	0.01	7300.	0.	0.	153.6	24.8	257.9	2.237E-04	3.389E-04	2.237E-04
G	1.6	1.85	7300.	0.	0.	153.6	24.8	257.9	3.195E-05	4.842E-05	3.195E-05
G	3.3	0.39	7300.	0.	0.	153.6	24.8	187.1	2.056E-05	2.260E-05	2.056E-05

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1257 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 10.1 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.1 45.7 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

NNE SECTOR BOUNDARY DISTANCE = 7300.0 METERS

LATERAL PLUME MEANDER/BUILDING WAKE CREDIT ALLOWED

AS A FUNCTION OF DOWNWIND DISTANCE.

MEANDER CREDIT IS FOR WINDSPEEDS LESS THAN 6 MPS.

BUILDING WAKE CREDIT ALLOWED: C= 0.5 A= 2584. D= 54.3

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

2.237E-04	1.117E-04	5.173E-05	3.195E-05	2.494E-05	2.056E-05	1.595E-05	9.119E-06	7.390E-06	3.956E-06
0.015	0.097	0.247	2.098	2.110	2.503	13.498	16.078	37.115	59.049
0.00061	0.00403	0.01029	0.08744	0.08793	0.10430	0.56252	0.67006	1.54676	2.46087
3.563E-06	2.582E-06	1.781E-06	1.745E-06	1.124E-06	7.595E-07	5.854E-07	3.947E-07	2.498E-07	2.368E-07
64.210	67.239	80.310	80.534	86.593	87.154	87.266	88.612	88.724	90.463
2.67595	2.80220	3.34692	3.35627	3.60876	3.63214	3.63682	3.69293	3.69760	3.77008
2.039E-07	1.166E-07	9.514E-08	6.995E-08	5.708E-08	4.727E-08	3.857E-08			
90.632	93.156	95.568	98.149	99.888	99.944	100.000			
3.77709	3.88230	3.98282	4.09037	4.16284	4.16518	4.16752			

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(2) =	0.562
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(3) =	1.545
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(4) =	2.673
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(5) =	3.344
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(6) =	3.606
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(7) =	4.159

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
10	1	-8.40538	-14.68705	-1.43625

Calculation No. PM-1055 Revision 0**Attachment J****Page 1258 of 1411**

10 2 -11.04582 -16.22211 -2.04174
10 3 -11.81533 -18.74508 -3.21067
10 4 -12.54483 -26.12405 -7.03173
10 5 -13.23843 -37.97973 -13.50141
10 6 -13.69861 -94.98652 -45.19980
10 7 -16.67879 NUMXQ(K)= 7

5.080E-05	0.042	1.000
3.217E-05	0.125	3.000
2.564E-05	0.208	5.000
1.851E-05	0.417	10.000
1.479E-05	0.625	15.000
1.197E-05	0.834	20.000
1.010E-05	1.042	25.000
8.763E-06	1.250	30.000
7.750E-06	1.459	35.000
6.713E-06	1.667	40.000
5.758E-06	1.875	45.000
5.009E-06	2.084	50.000
4.406E-06	2.292	55.000
3.913E-06	2.501	60.000
3.433E-06	2.709	65.000
2.735E-06	2.917	70.000
2.208E-06	3.126	75.000
1.803E-06	3.334	80.000
1.260E-06	3.542	85.000
5.063E-07	3.751	90.000

1.692E-05 0.5 12.00

ANNUAL AVERAGE = 1.14E-07

K= 10 FIVEXQ(K)= 1.692E-05 FIVEPR(K)=11.998

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 01/28/03

Page 1259 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Ground Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 10.1 meters

DELTA-T HEIGHTS: 10.1-45.7 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE NE SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 10.0 METERS												CA=1292.SQ.METERS		
A	1.6	0.21	7300.	0.	0.	0.	1000.0	1000.0	1000.0	2.039E-07	2.039E-07	2.039E-07		
A	3.3	2.81	7300.	0.	0.	0.	1000.0	1000.0	1000.0	9.517E-08	9.514E-08	9.514E-08		
A	5.6	2.03	7300.	0.	0.	0.	1000.0	1000.0	1000.0	5.710E-08	5.708E-08	5.708E-08		
A	8.2	0.16	7300.	0.	0.	0.	1000.0	1000.0	1000.0	3.858E-08	3.857E-08	3.857E-08		
B	1.6	0.31	7300.	0.	0.	0.	848.1	962.0	848.1	2.500E-07	2.498E-07	2.498E-07		
B	3.3	3.34	7300.	0.	0.	0.	848.1	962.0	848.1	1.166E-07	1.166E-07	1.166E-07		
B	5.6	1.46	7300.	0.	0.	0.	848.1	962.0	848.1	6.999E-08	6.995E-08	6.995E-08		
B	8.2	0.16	7300.	0.	0.	0.	848.1	962.0	848.1	4.729E-08	4.727E-08	4.727E-08		
C	1.6	0.26	7300.	0.	0.	0.	644.0	373.7	644.0	8.473E-07	8.459E-07	8.459E-07		
C	3.3	1.25	7300.	0.	0.	0.	644.0	373.7	644.0	3.954E-07	3.947E-07	3.947E-07		
C	5.6	1.15	7300.	0.	0.	0.	644.0	373.7	644.0	2.372E-07	2.368E-07	2.368E-07		
D	0.2	0.01	7300.	0.	0.	0.	453.5	111.1	515.1	2.494E-05	2.810E-05	2.494E-05		
D	1.6	4.06	7300.	0.	0.	0.	453.5	111.1	515.1	3.563E-06	4.014E-06	3.563E-06		
D	3.3	9.80	7300.	0.	0.	0.	453.5	111.1	481.0	1.781E-06	1.873E-06	1.781E-06		
D	5.6	4.06	7300.	0.	0.	0.	453.5	111.1	456.4	1.126E-06	1.124E-06	1.124E-06		
D	8.2	0.26	7300.	0.	0.	0.	453.5	111.1	453.5	7.657E-07	7.595E-07	7.595E-07		
E	0.2	0.12	7300.	0.	0.	0.	322.5	67.5	410.0	5.173E-05	6.456E-05	5.173E-05		
E	1.6	16.94	7300.	0.	0.	0.	322.5	67.5	410.0	7.390E-06	9.223E-06	7.390E-06		
E	3.3	16.88	7300.	0.	0.	0.	322.5	67.5	357.4	3.956E-06	4.304E-06	3.956E-06		
E	5.6	2.40	7300.	0.	0.	0.	322.5	67.5	325.9	2.603E-06	2.582E-06	2.582E-06		
F	0.2	0.11	7300.	0.	0.	0.	222.6	40.9	313.3	1.117E-04	1.504E-04	1.117E-04		
F	1.6	15.32	7300.	0.	0.	0.	222.6	40.9	313.3	1.595E-05	2.148E-05	1.595E-05		
F	3.3	5.05	7300.	0.	0.	0.	222.6	40.9	255.8	9.119E-06	1.002E-05	9.119E-06		
F	5.6	0.05	7300.	0.	0.	0.	222.6	40.9	225.6	6.202E-06	6.015E-06	6.015E-06		
G	0.2	0.07	7300.	0.	0.	0.	153.6	24.8	257.9	2.237E-04	3.389E-04	2.237E-04		
G	1.6	8.65	7300.	0.	0.	0.	153.6	24.8	257.9	3.195E-05	4.842E-05	3.195E-05		
G	3.3	3.07	7300.	0.	0.	0.	153.6	24.8	187.1	2.056E-05	2.260E-05	2.056E-05		

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1260 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 10.1 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.1-45.7 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

NE SECTOR BOUNDARY DISTANCE = 7300.0 METERS

LATERAL PLUME MEANDER/BUILDING WAKE CREDIT ALLOWED

AS A FUNCTION OF DOWNWIND DISTANCE.

MEANDER CREDIT IS FOR WINDSPEEDS LESS THAN 6 MPS.

BUILDING WAKE CREDIT ALLOWED: C= 0.5 A= 2584. D= 54.3

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

2.237E-04	1.117E-04	5.173E-05	3.195E-05	2.494E-05	2.056E-05	1.595E-05	9.119E-06	7.390E-06	6.015E-06
0.068	0.183	0.304	8.954	8.963	12.038	27.358	32.413	49.349	49.401
0.00307	0.00821	0.01363	0.40171	0.40213	0.54007	1.22740	1.45418	2.21398	2.21632
3.956E-06	3.563E-06	2.582E-06	1.781E-06	1.124E-06	8.459E-07	7.595E-07	3.947E-07	2.498E-07	2.368E-07
66.285	70.349	72.746	82.543	86.608	86.868	87.129	88.379	88.692	89.838
2.97379	3.15614	3.26369	3.70321	3.88556	3.89725	3.90894	3.96505	3.97907	4.03051
2.039E-07	1.166E-07	9.514E-08	6.995E-08	5.708E-08	4.727E-08	3.857E-08			
90.047	93.382	96.196	97.655	99.687	99.844	100.000			
4.03986	4.18948	4.31573	4.38119	4.47236	4.47938	4.48639			

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE (2) =	0.401
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE (3) =	1.226
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE (4) =	2.212
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE (5) =	3.153
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE (6) =	3.700
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE (7) =	3.882

K I XQSAVE(K,I) XQINT(K,I) XQSLOP(K,I)
11 1 -8.40538 -14.15498 -1.43480

Calculation No. PM-1055 Revision 0

Attachment J

Page 1261 of 1411

11 2 -10.35129 -14.92988 -1.72710
 11 3 -11.04582 -18.34724 -3.24669
 11 4 -11.81533 -21.39976 -4.76394
 11 5 -12.54483 -30.42010 -9.61687
 11 6 -13.23843 -50.44180 -20.82336
 11 7 -13.69861 NUMXQ(K) = 7

8.357E-05	0.045	1.000
5.281E-05	0.135	3.000
4.203E-05	0.224	5.000
2.995E-05	0.449	10.000
2.345E-05	0.673	15.000
1.957E-05	0.897	20.000
1.693E-05	1.122	25.000
1.421E-05	1.346	30.000
1.166E-05	1.570	35.000
9.794E-06	1.795	40.000
8.373E-06	2.019	45.000
7.199E-06	2.243	50.000
5.939E-06	2.468	55.000
4.970E-06	2.692	60.000
4.209E-06	2.916	65.000
3.601E-06	3.140	70.000
2.705E-06	3.365	75.000
2.043E-06	3.589	80.000
1.345E-06	3.813	85.000

2.808E-05 0.5 11.14

ANNUAL AVERAGE = 1.59E-07

K= 11 FIVEXQ(K)= 2.808E-05 FIVEPR(K)=11.145

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 01/28/03

Page 1262 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Ground Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 10.1 meters

DELTA-T HEIGHTS: 10.1-45.7 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE ENE SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 10.0 METERS												CA=1292.SQ.METERS		
A	1.6	0.24	7300.	0.	0.	0.	1000.0	1000.0	1000.0	2.039E-07	2.039E-07	2.039E-07		
A	3.3	1.35	7300.	0.	0.	0.	1000.0	1000.0	1000.0	9.517E-08	9.514E-08	9.514E-08		
A	5.6	0.97	7300.	0.	0.	0.	1000.0	1000.0	1000.0	5.710E-08	5.708E-08	5.708E-08		
A	8.2	0.03	7300.	0.	0.	0.	1000.0	1000.0	1000.0	3.858E-08	3.857E-08	3.857E-08		
B	1.6	0.21	7300.	0.	0.	0.	848.1	962.0	848.1	2.500E-07	2.498E-07	2.498E-07		
B	3.3	1.45	7300.	0.	0.	0.	848.1	962.0	848.1	1.166E-07	1.166E-07	1.166E-07		
B	5.6	0.83	7300.	0.	0.	0.	848.1	962.0	848.1	6.999E-08	6.995E-08	6.995E-08		
C	1.6	0.14	7300.	0.	0.	0.	644.0	373.7	644.0	8.473E-07	8.459E-07	8.459E-07		
C	3.3	0.73	7300.	0.	0.	0.	644.0	373.7	644.0	3.954E-07	3.947E-07	3.947E-07		
C	5.6	0.76	7300.	0.	0.	0.	644.0	373.7	644.0	2.372E-07	2.368E-07	2.368E-07		
D	0.2	0.01	7300.	0.	0.	0.	453.5	111.1	515.1	2.494E-05	2.810E-05	2.494E-05		
D	1.6	3.63	7300.	0.	0.	0.	453.5	111.1	515.1	3.563E-06	4.014E-06	3.563E-06		
D	3.3	6.04	7300.	0.	0.	0.	453.5	111.1	481.0	1.781E-06	1.873E-06	1.781E-06		
D	5.6	2.56	7300.	0.	0.	0.	453.5	111.1	456.4	1.126E-06	1.124E-06	1.124E-06		
D	8.2	0.14	7300.	0.	0.	0.	453.5	111.1	453.5	7.657E-07	7.595E-07	7.595E-07		
E	0.2	0.10	7300.	0.	0.	0.	322.5	67.5	410.0	5.173E-05	6.456E-05	5.173E-05		
E	1.6	13.64	7300.	0.	0.	0.	322.5	67.5	410.0	7.390E-06	9.223E-06	7.390E-06		
E	3.3	14.99	7300.	0.	0.	0.	322.5	67.5	357.4	3.956E-06	4.304E-06	3.956E-06		
E	5.6	1.76	7300.	0.	0.	0.	322.5	67.5	325.9	2.603E-06	2.582E-06	2.582E-06		
F	0.2	0.12	7300.	0.	0.	0.	222.6	40.9	313.3	1.117E-04	1.504E-04	1.117E-04		
F	1.6	15.58	7300.	0.	0.	0.	222.6	40.9	313.3	1.595E-05	2.148E-05	1.595E-05		
F	3.3	8.70	7300.	0.	0.	0.	222.6	40.9	255.8	9.119E-06	1.002E-05	9.119E-06		
F	5.6	0.10	7300.	0.	0.	0.	222.6	40.9	225.6	6.202E-06	6.015E-06	6.015E-06		
G	0.2	0.13	7300.	0.	0.	0.	153.6	24.8	257.9	2.237E-04	3.389E-04	2.237E-04		
G	1.6	16.99	7300.	0.	0.	0.	153.6	24.8	257.9	3.195E-05	4.842E-05	3.195E-05		
G	3.3	8.77	7300.	0.	0.	0.	153.6	24.8	187.1	2.056E-05	2.260E-05	2.056E-05		
G	5.6	0.03	7300.	0.	0.	0.	153.6	24.8	156.4	1.476E-05	1.356E-05	1.356E-05		

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1263 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 10.1 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.1-45.7 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

ENE SECTOR BOUNDARY DISTANCE = 7300.0 METERS

LATERAL PLUME MEANDER/BUILDING WAKE CREDIT ALLOWED

AS A FUNCTION OF DOWNWIND DISTANCE.

MEANDER CREDIT IS FOR WINDSPEEDS LESS THAN 6 MPS.

BUILDING WAKE CREDIT ALLOWED: C= 0.5 A= 2584. D= 54.3

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

2.237E-04	1.117E-04	5.173E-05	3.195E-05	2.494E-05	2.056E-05	1.595E-05	1.356E-05	9.119E-06	7.390E-06
0.135	0.251	0.348	17.341	17.349	26.122	41.699	41.734	50.437	64.080
0.00910	0.01698	0.02357	1.17380	1.17437	1.76819	2.82256	2.82490	3.41405	4.33750
6.015E-06	3.956E-06	3.563E-06	2.582E-06	1.781E-06	1.124E-06	8.459E-07	7.595E-07	3.947E-07	2.498E-07
64.184	79.173	82.800	84.561	90.606	93.161	93.300	93.438	94.163	94.370
4.34452	5.35915	5.60463	5.72386	6.13299	6.30599	6.31534	6.32469	6.37379	6.38781
2.368E-07	2.039E-07	1.166E-07	9.514E-08	6.995E-08	5.708E-08	3.857E-08			
95.130	95.372	96.822	98.169	98.998	99.965	100.000			
6.43925	6.45561	6.55380	6.64498	6.70109	6.76655	6.76889			

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(2)=	1.172
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(3)=	2.820
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(4)=	4.334
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(5)=	5.601
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(6)=	6.129
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(7)=	6.302

K I XQSAVE(K,I) XQINT(K,I) XQSLOP(K,I)

12 1 -8.40538 -13.33734 -1.31774

Calculation No. PM-1055 Revision 0**Attachment J****Page 1264 of 1411**

12	2	-10.35129	-14.74649	-1.93960
12	3	-11.04582	-18.58338	-3.95059
12	4	-11.81533	-21.89563	-5.88398
12	5	-12.54483	-36.94700	-15.35505
12	6	-13.23843	-63.53146	-32.57270
12	7	-13.69861		

NUMXQ(K) = 7

1.101E-04	0.068	1.000
7.116E-05	0.203	3.000
5.723E-05	0.338	5.000
4.179E-05	0.677	10.000
3.435E-05	1.015	15.000
2.871E-05	1.354	20.000
2.418E-05	1.692	25.000
2.093E-05	2.031	30.000
1.846E-05	2.369	35.000
1.652E-05	2.708	40.000
1.398E-05	3.046	45.000
1.161E-05	3.384	50.000
9.784E-06	3.723	55.000
8.347E-06	4.061	60.000
7.103E-06	4.400	65.000
5.771E-06	4.738	70.000
4.744E-06	5.077	75.000
3.939E-06	5.415	80.000
2.916E-06	5.754	85.000
1.876E-06	6.092	90.000

4.809E-05	0.5	7.39
-----------	-----	------

ANNUAL AVERAGE = 3.00E-07

K= 12 FIVEXQ(K)= 4.809E-05 FIVEPR(K)= 7.387

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 01/28/03

Page 1265 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Ground Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 10.1 meters

DELTA-T HEIGHTS: 10.1-45.7 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE E SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 10.0 METERS												CA=1292.SQ.METERS		
A	1.6	0.43	7300.	0.	0.	0.	1000.0	1000.0	1000.0	2.039E-07	2.039E-07	2.039E-07		
A	3.3	2.64	7300.	0.	0.	0.	1000.0	1000.0	1000.0	9.517E-08	9.514E-08	9.514E-08		
A	5.6	1.64	7300.	0.	0.	0.	1000.0	1000.0	1000.0	5.710E-08	5.708E-08	5.708E-08		
A	8.2	0.11	7300.	0.	0.	0.	1000.0	1000.0	1000.0	3.858E-08	3.857E-08	3.857E-08		
B	1.6	0.43	7300.	0.	0.	0.	848.1	962.0	848.1	2.500E-07	2.498E-07	2.498E-07		
B	3.3	1.81	7300.	0.	0.	0.	848.1	962.0	848.1	1.166E-07	1.166E-07	1.166E-07		
B	5.6	1.45	7300.	0.	0.	0.	848.1	962.0	848.1	6.999E-08	6.995E-08	6.995E-08		
B	8.2	0.06	7300.	0.	0.	0.	848.1	962.0	848.1	4.729E-08	4.727E-08	4.727E-08		
C	1.6	0.17	7300.	0.	0.	0.	644.0	373.7	644.0	8.473E-07	8.459E-07	8.459E-07		
C	3.3	1.19	7300.	0.	0.	0.	644.0	373.7	644.0	3.954E-07	3.947E-07	3.947E-07		
C	5.6	0.99	7300.	0.	0.	0.	644.0	373.7	644.0	2.372E-07	2.368E-07	2.368E-07		
C	8.2	0.09	7300.	0.	0.	0.	644.0	373.7	644.0	1.603E-07	1.600E-07	1.600E-07		
D	0.2	0.01	7300.	0.	0.	0.	453.5	111.1	515.1	2.494E-05	2.810E-05	2.494E-05		
D	1.6	3.46	7300.	0.	0.	0.	453.5	111.1	515.1	3.563E-06	4.014E-06	3.563E-06		
D	3.3	8.42	7300.	0.	0.	0.	453.5	111.1	481.0	1.781E-06	1.873E-06	1.781E-06		
D	5.6	6.06	7300.	0.	0.	0.	453.5	111.1	456.4	1.126E-06	1.124E-06	1.124E-06		
D	8.2	1.22	7300.	0.	0.	0.	453.5	111.1	453.5	7.657E-07	7.595E-07	7.595E-07		
E	0.2	0.09	7300.	0.	0.	0.	322.5	67.5	410.0	5.173E-05	6.456E-05	5.173E-05		
E	1.6	12.70	7300.	0.	0.	0.	322.5	67.5	410.0	7.390E-06	9.223E-06	7.390E-06		
E	3.3	18.93	7300.	0.	0.	0.	322.5	67.5	357.4	3.956E-06	4.304E-06	3.956E-06		
E	5.6	3.49	7300.	0.	0.	0.	322.5	67.5	325.9	2.603E-06	2.582E-06	2.582E-06		
E	8.2	0.17	7300.	0.	0.	0.	322.5	67.5	322.5	1.778E-06	1.745E-06	1.745E-06		
F	0.2	0.11	7300.	0.	0.	0.	222.6	40.9	313.3	1.117E-04	1.504E-04	1.117E-04		
F	1.6	14.17	7300.	0.	0.	0.	222.6	40.9	313.3	1.595E-05	2.148E-05	1.595E-05		
F	3.3	6.04	7300.	0.	0.	0.	222.6	40.9	255.8	9.119E-06	1.002E-05	9.119E-06		
G	0.2	0.10	7300.	0.	0.	0.	153.6	24.8	257.9	2.237E-04	3.389E-04	2.237E-04		
G	1.6	12.04	7300.	0.	0.	0.	153.6	24.8	257.9	3.195E-05	4.842E-05	3.195E-05		
G	3.3	2.01	7300.	0.	0.	0.	153.6	24.8	187.1	2.056E-05	2.260E-05	2.056E-05		

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1266 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 10.1 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.1-45.7 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

E SECTOR BOUNDARY DISTANCE = 7300.0 METERS

LATERAL PLUME MEANDER/BUILDING WAKE CREDIT ALLOWED

AS A FUNCTION OF DOWNWIND DISTANCE.

MEANDER CREDIT IS FOR WINDSPEEDS LESS THAN 6 MPS.

BUILDING WAKE CREDIT ALLOWED: C= 0.5 A= 2584. D= 54.3

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

2.237E-04	1.117E-04	5.173E-05	3.195E-05	2.494E-05	2.056E-05	1.595E-05	9.119E-06	7.390E-06	3.956E-06
0.095	0.201	0.292	12.336	12.344	14.356	28.526	34.563	47.259	66.190
0.00786	0.01660	0.02407	1.01766	1.01832	1.18431	2.35324	2.85121	3.89858	5.46027
3.563E-06	2.582E-06	1.781E-06	1.745E-06	1.124E-06	8.459E-07	7.595E-07	3.947E-07	2.498E-07	2.368E-07
69.648	73.134	81.551	81.721	87.785	87.955	89.174	90.364	90.789	91.781
5.74549	6.03305	6.72740	6.74143	7.24173	7.25576	7.35628	7.45448	7.48954	7.57137
2.039E-07	1.600E-07	1.166E-07	9.514E-08	6.995E-08	5.708E-08	4.727E-08	3.857E-08		
92.206	92.292	94.105	96.741	98.186	99.830	99.887	100.000		
7.60644	7.61345	7.76307	7.98050	8.09973	8.23532	8.24000	8.24935		

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(2)=	1.016
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(3)=	2.351
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(4)=	3.895
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(5)=	5.456
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(6)=	5.742
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(7)=	6.724
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(8)=	7.238
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(9)=	8.232

Calculation No. PM-1055 Revision 0

Attachment J

Page 1267 of 1411

K	I	XQSAVE(K, I)	XQINT(K, I)	XQSLOP(K, I)
13	1	-8.40538	-13.44553	-1.33360
13	2	-10.35129	-15.17515	-2.07906
13	3	-11.04582	-17.89402	-3.44798
13	4	-11.81533	-18.66356	-3.88448
13	5	-12.44017	-19.07274	-4.13988
13	6	-12.54483	-26.19342	-8.65569
13	7	-13.23843	-31.17334	-11.98294
13	8	-13.69861	-77.01177	-43.41573
13	9	-16.67879	NUMXQ(K)= 9	
		9.627E-05	0.082	1.000
		6.145E-05	0.247	3.000
		4.908E-05	0.412	5.000
		3.545E-05	0.825	10.000
		2.737E-05	1.237	15.000
		2.163E-05	1.650	20.000
		1.790E-05	2.062	25.000
		1.482E-05	2.475	30.000
		1.177E-05	2.887	35.000
		9.601E-06	3.300	40.000
		7.987E-06	3.712	45.000
		6.676E-06	4.125	50.000
		5.607E-06	4.537	55.000
		4.767E-06	4.950	60.000
		4.096E-06	5.362	65.000
		3.486E-06	5.775	70.000
		2.581E-06	6.187	75.000
		1.940E-06	6.599	80.000
		1.376E-06	7.012	85.000
		6.354E-07	7.424	90.000
		4.495E-05	0.5	6.06

ANNUAL AVERAGE = 2.98E-07

K= 13 FIVEXQ(K)= 4.495E-05 FIVEPR(K)= 6.061

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 01/28/03

Page 1268 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Ground Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 10.1 meters

DELTA-T HEIGHTS: 10.1-45.7 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE ESE SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 10.0 METERS												CA=1292.SQ.METERS		
A	1.6	0.39	7300.	0.	0.	1000.0	1000.0	1000.0	2.039E-07	2.039E-07	2.039E-07			
A	3.3	2.50	7300.	0.	0.	1000.0	1000.0	1000.0	9.517E-08	9.514E-08	9.514E-08			
A	5.6	0.87	7300.	0.	0.	1000.0	1000.0	1000.0	5.710E-08	5.708E-08	5.708E-08			
A	8.2	0.19	7300.	0.	0.	1000.0	1000.0	1000.0	3.858E-08	3.857E-08	3.857E-08			
B	1.6	0.29	7300.	0.	0.	848.1	962.0	848.1	2.500E-07	2.498E-07	2.498E-07			
B	3.3	1.71	7300.	0.	0.	848.1	962.0	848.1	1.166E-07	1.166E-07	1.166E-07			
B	5.6	1.71	7300.	0.	0.	848.1	962.0	848.1	6.999E-08	6.995E-08	6.995E-08			
B	8.2	0.39	7300.	0.	0.	848.1	962.0	848.1	4.729E-08	4.727E-08	4.727E-08			
B	10.7	0.02	7300.	0.	0.	848.1	962.0	848.1	3.645E-08	3.643E-08	3.643E-08			
C	1.6	0.17	7300.	0.	0.	644.0	373.7	644.0	8.473E-07	8.459E-07	8.459E-07			
C	3.3	0.89	7300.	0.	0.	644.0	373.7	644.0	3.954E-07	3.947E-07	3.947E-07			
C	5.6	1.28	7300.	0.	0.	644.0	373.7	644.0	2.372E-07	2.368E-07	2.368E-07			
C	8.2	0.29	7300.	0.	0.	644.0	373.7	644.0	1.603E-07	1.600E-07	1.600E-07			
D	0.2	0.01	7300.	0.	0.	453.5	111.1	515.1	2.494E-05	2.810E-05	2.494E-05			
D	1.6	3.08	7300.	0.	0.	453.5	111.1	515.1	3.563E-06	4.014E-06	3.563E-06			
D	3.3	10.41	7300.	0.	0.	453.5	111.1	481.0	1.781E-06	1.873E-06	1.781E-06			
D	5.6	13.85	7300.	0.	0.	453.5	111.1	456.4	1.126E-06	1.124E-06	1.124E-06			
D	8.2	1.37	7300.	0.	0.	453.5	111.1	453.5	7.657E-07	7.595E-07	7.595E-07			
D	10.7	0.02	7300.	0.	0.	453.5	111.1	453.5	5.902E-07	5.854E-07	5.854E-07			
E	0.2	0.09	7300.	0.	0.	322.5	67.5	410.0	5.173E-05	6.456E-05	5.173E-05			
E	1.6	11.99	7300.	0.	0.	322.5	67.5	410.0	7.390E-06	9.223E-06	7.390E-06			
E	3.3	24.18	7300.	0.	0.	322.5	67.5	357.4	3.956E-06	4.304E-06	3.956E-06			
E	5.6	4.65	7300.	0.	0.	322.5	67.5	325.9	2.603E-06	2.582E-06	2.582E-06			
E	8.2	0.19	7300.	0.	0.	322.5	67.5	322.5	1.778E-06	1.745E-06	1.745E-06			
F	0.2	0.07	7300.	0.	0.	222.6	40.9	313.3	1.117E-04	1.504E-04	1.117E-04			
F	1.6	10.02	7300.	0.	0.	222.6	40.9	313.3	1.595E-05	2.148E-05	1.595E-05			
F	3.3	3.28	7300.	0.	0.	222.6	40.9	255.8	9.119E-06	1.002E-05	9.119E-06			
F	5.6	0.02	7300.	0.	0.	222.6	40.9	225.6	6.202E-06	6.015E-06	6.015E-06			
G	0.2	0.04	7300.	0.	0.	153.6	24.8	257.9	2.237E-04	3.389E-04	2.237E-04			
G	1.6	5.64	7300.	0.	0.	153.6	24.8	257.9	3.195E-05	4.842E-05	3.195E-05			
G	3.3	0.39	7300.	0.	0.	153.6	24.8	187.1	2.056E-05	2.260E-05	2.056E-05			

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1269 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Ground Release

SOURCE OF DATA:

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 10.1 meters

DELTA-T HEIGHTS: 10.1-45.7 meters

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

ESE SECTOR BOUNDARY DISTANCE = 7300.0 METERS

LATERAL PLUME MEANDER/BUILDING WAKE CREDIT ALLOWED

AS A FUNCTION OF DOWNWIND DISTANCE.

MEANDER CREDIT IS FOR WINDSPEEDS LESS THAN 6 MPS.

BUILDING WAKE CREDIT ALLOWED: C= 0.5 A= 2584. D= 54.3

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

2.237E-04	1.117E-04	5.173E-05	3.195E-05	2.494E-05	2.056E-05	1.595E-05	9.119E-06	7.390E-06	6.015E-06
0.045	0.119	0.205	5.841	5.848	6.234	16.253	19.529	31.524	31.548
0.00433	0.01160	0.01990	0.56696	0.56765	0.60506	1.57761	1.89556	3.05982	3.06216
3.956E-06	3.563E-06	2.582E-06	1.781E-06	1.745E-06	1.124E-06	8.459E-07	7.595E-07	5.854E-07	3.947E-07
55.730	58.813	63.462	73.867	74.060	87.909	88.077	89.450	89.474	90.366
5.40938	5.70863	6.15983	7.16979	7.18850	8.53277	8.54914	8.68239	8.68473	8.77123
2.498E-07	2.368E-07	2.039E-07	1.600E-07	1.166E-07	9.514E-08	6.995E-08	5.708E-08	4.727E-08	3.857E-08
90.655	91.931	92.317	92.606	94.316	96.821	98.531	99.398	99.783	99.976
8.79929	8.92319	8.96060	8.98866	9.15464	9.39778	9.56377	9.64794	9.68534	9.70404
3.643E-08									
100.000									
9.70638									

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(2) =	0.566
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(3) =	1.576
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(4) =	5.406
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(5) =	5.705
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(6) =	8.529

Calculation No. PM-1055 Revision 0

Attachment J

Page 1270 of 1411

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(7)= 8.679

K	I	XQSAVE(K, I)	XQINT(K, I)	XQSLOP(K, I)
14	1	-8.40538	-13.88919	-1.39701
14	2	-10.35129	-14.95571	-1.81815
14	3	-11.04582	-16.56041	-2.56435
14	4	-12.44017	-18.74070	-3.92132
14	5	-12.54483	-21.23772	-5.50167
14	6	-13.69861	-70.06627	-41.13431
14	7	-14.09066	NUMXQ(K) = 7	
		7.054E-05	0.097	1.000
		4.378E-05	0.291	3.000
		3.446E-05	0.485	5.000
		2.243E-05	0.971	10.000
		1.690E-05	1.456	15.000
		1.286E-05	1.941	20.000
		1.012E-05	2.427	25.000
		8.271E-06	2.912	30.000
		6.938E-06	3.397	35.000
		5.935E-06	3.883	40.000
		5.154E-06	4.368	45.000
		4.531E-06	4.853	50.000
		4.023E-06	5.339	55.000
		3.373E-06	5.824	60.000
		2.700E-06	6.309	65.000
		2.190E-06	6.794	70.000
		1.796E-06	7.280	75.000
		1.488E-06	7.765	80.000
		1.243E-06	8.250	85.000
		3.397E-05	0.5	5.15

ANNUAL AVERAGE = 2.58E-07

K= 14 FIVEXQ(K)= 3.397E-05 FIVEPR(K)= 5.151

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1271 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 10.1 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.1-45.7 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE SE SECTOR.

STABILITY CLASS	WINDSPEED METER/SEC AT 10.0 METERS	FREQUENCY PERCENT	DISTANCE METERS	TERRAIN METERS	HT METERS	EFF METERS	PLUME METERS	HT METERS	SIGMA-Y METERS	SIGMA-Z METERS	MEANDER-SY METERS	** CHI/Q MEANDER	VALUES (SEC/CUBIC METER) BLDG WAKE	USED
CA=1292.SQ.METERS														
A	1.6	0.49	7300.	0.		0.			1000.0	1000.0	1000.0	2.039E-07	2.039E-07	2.039E-07
A	3.3	1.58	7300.	0.		0.			1000.0	1000.0	1000.0	9.517E-08	9.514E-08	9.514E-08
A	5.6	0.51	7300.	0.		0.			1000.0	1000.0	1000.0	5.710E-08	5.708E-08	5.708E-08
A	8.2	0.06	7300.	0.		0.			1000.0	1000.0	1000.0	3.858E-08	3.857E-08	3.857E-08
B	1.6	0.18	7300.	0.		0.			848.1	962.0	848.1	2.500E-07	2.498E-07	2.498E-07
B	3.3	1.40	7300.	0.		0.			848.1	962.0	848.1	1.166E-07	1.166E-07	1.166E-07
B	5.6	1.83	7300.	0.		0.			848.1	962.0	848.1	6.999E-08	6.995E-08	6.995E-08
B	8.2	0.43	7300.	0.		0.			848.1	962.0	848.1	4.729E-08	4.727E-08	4.727E-08
C	1.6	0.18	7300.	0.		0.			644.0	373.7	644.0	8.473E-07	8.459E-07	8.459E-07
C	3.3	0.94	7300.	0.		0.			644.0	373.7	644.0	3.954E-07	3.947E-07	3.947E-07
C	5.6	1.64	7300.	0.		0.			644.0	373.7	644.0	2.372E-07	2.368E-07	2.368E-07
C	8.2	0.41	7300.	0.		0.			644.0	373.7	644.0	1.603E-07	1.600E-07	1.600E-07
D	0.2	0.01	7300.	0.		0.			453.5	111.1	515.1	2.494E-05	2.810E-05	2.494E-05
D	1.6	3.94	7300.	0.		0.			453.5	111.1	515.1	3.563E-06	4.014E-06	3.563E-06
D	3.3	15.18	7300.	0.		0.			453.5	111.1	481.0	1.781E-06	1.873E-06	1.781E-06
D	5.6	18.92	7300.	0.		0.			453.5	111.1	456.4	1.126E-06	1.124E-06	1.124E-06
D	8.2	3.47	7300.	0.		0.			453.5	111.1	453.5	7.657E-07	7.595E-07	7.595E-07
E	0.2	0.09	7300.	0.		0.			322.5	67.5	410.0	5.173E-05	6.456E-05	5.173E-05
E	1.6	12.49	7300.	0.		0.			322.5	67.5	410.0	7.390E-06	9.223E-06	7.390E-06
E	3.3	19.45	7300.	0.		0.			322.5	67.5	357.4	3.956E-06	4.304E-06	3.956E-06
E	5.6	5.27	7300.	0.		0.			322.5	67.5	325.9	2.603E-06	2.582E-06	2.582E-06
E	8.2	0.18	7300.	0.		0.			322.5	67.5	322.5	1.778E-06	1.745E-06	1.745E-06
F	0.2	0.05	7300.	0.		0.			222.6	40.9	313.3	1.117E-04	1.504E-04	1.117E-04
F	1.6	6.79	7300.	0.		0.			222.6	40.9	313.3	1.595E-05	2.148E-05	1.595E-05
F	3.3	1.87	7300.	0.		0.			222.6	40.9	255.8	9.119E-06	1.002E-05	9.119E-06
F	5.6	0.02	7300.	0.		0.			222.6	40.9	225.6	6.202E-06	6.015E-06	6.015E-06
G	0.2	0.02	7300.	0.		0.			153.6	24.8	257.9	2.237E-04	3.389E-04	2.237E-04
G	1.6	2.44	7300.	0.		0.			153.6	24.8	257.9	3.195E-05	4.842E-05	3.195E-05
G	3.3	0.14	7300.	0.		0.			153.6	24.8	187.1	2.056E-05	2.260E-05	2.056E-05

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1272 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 10.1 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.1-45.7 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

SE SECTOR BOUNDARY DISTANCE = 7300.0 METERS

LATERAL PLUME MEANDER/BUILDING WAKE CREDIT ALLOWED

AS A FUNCTION OF DOWNWIND DISTANCE.

MEANDER CREDIT IS FOR WINDSPEEDS LESS THAN 6 MPS.

BUILDING WAKE CREDIT ALLOWED: C= 0.5 A= 2584. D= 54.3

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

2.237E-04	1.117E-04	5.173E-05	3.195E-05	2.494E-05	2.056E-05	1.595E-05	9.119E-06	7.390E-06	6.015E-06
0.019	0.070	0.159	2.601	2.610	2.753	9.544	11.411	23.905	23.926
0.00220	0.00798	0.01814	0.29635	0.29738	0.31375	1.08758	1.30033	2.72409	2.72643
3.956E-06	3.563E-06	2.582E-06	1.781E-06	1.745E-06	1.124E-06	8.459E-07	7.595E-07	3.947E-07	2.498E-07
43.375	47.314	52.587	67.769	67.954	86.870	87.054	90.522	91.465	91.650
4.94273	5.39160	5.99243	7.72245	7.74349	9.89901	9.92005	10.31515	10.42269	10.44373
2.368E-07	2.039E-07	1.600E-07	1.166E-07	9.514E-08	6.995E-08	5.708E-08	4.727E-08	3.857E-08	
93.291	93.784	94.194	95.589	97.169	98.995	99.508	99.938	100.000	
10.63076	10.68687	10.73363	10.89260	11.07262	11.28069	11.33914	11.38823	11.39524	

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(2) =	0.296
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(3) =	1.086
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(4) =	2.721
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(5) =	4.939
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(6) =	5.388
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(7) =	9.896
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE(8) =	10.312

K I XQSAVE(K,I) XQINT(K,I) XQSLOP(K,I)

Calculation No. PM-1055 Revision 0

Attachment J

Page 1273 of 1411

15	1	-8.40538	-14.36887	-1.45979
15	2	-10.35129	-14.53344	-1.51958
15	3	-11.04582	-15.79721	-2.07021
15	4	-11.81533	-16.22378	-2.29199
15	5	-12.44017	-16.51185	-2.46650
15	6	-12.54483	-18.32850	-3.59600
15	7	-13.69861	-35.13582	-16.65015
15	8	-14.09066	NUMXQ(K) = 8	
		4.946E-05	0.114	1.000
		2.974E-05	0.342	3.000
		2.282E-05	0.570	5.000
		1.538E-05	1.140	10.000
		1.106E-05	1.709	15.000
		8.655E-06	2.279	20.000
		7.067E-06	2.849	25.000
		5.871E-06	3.419	30.000
		4.994E-06	3.988	35.000
		4.325E-06	4.558	40.000
		3.786E-06	5.128	45.000
		3.229E-06	5.698	50.000
		2.718E-06	6.267	55.000
		2.314E-06	6.837	60.000
		1.990E-06	7.407	65.000
		1.727E-06	7.977	70.000
		1.509E-06	8.546	75.000
		1.328E-06	9.116	80.000
		1.175E-06	9.686	85.000
		8.026E-07	10.256	90.000
		2.446E-05	0.5	4.39

ANNUAL AVERAGE = 2.42E-07

K= 15 FIVEXQ(K)= 2.446E-05 FIVEPR(K)= 4.388

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 01/28/03

Page 1274 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Ground Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 10.1 meters

DELTA-T HEIGHTS: 10.1-45.7 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE SSE SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 10.0 METERS												CA=1292.SQ.METERS		
A	1.6	0.84	7300.	0.	0.	0.	1000.0	1000.0	1000.0	2.039E-07	2.039E-07	2.039E-07		
A	3.3	4.22	7300.	0.	0.	0.	1000.0	1000.0	1000.0	9.517E-08	9.514E-08	9.514E-08		
A	5.6	1.88	7300.	0.	0.	0.	1000.0	1000.0	1000.0	5.710E-08	5.708E-08	5.708E-08		
A	8.2	0.02	7300.	0.	0.	0.	1000.0	1000.0	1000.0	3.858E-08	3.857E-08	3.857E-08		
B	1.6	0.79	7300.	0.	0.	0.	848.1	962.0	848.1	2.500E-07	2.498E-07	2.498E-07		
B	3.3	3.47	7300.	0.	0.	0.	848.1	962.0	848.1	1.166E-07	1.166E-07	1.166E-07		
B	5.6	3.51	7300.	0.	0.	0.	848.1	962.0	848.1	6.999E-08	6.995E-08	6.995E-08		
B	8.2	0.19	7300.	0.	0.	0.	848.1	962.0	848.1	4.729E-08	4.727E-08	4.727E-08		
C	1.6	0.69	7300.	0.	0.	0.	644.0	373.7	644.0	8.473E-07	8.459E-07	8.459E-07		
C	3.3	2.61	7300.	0.	0.	0.	644.0	373.7	644.0	3.954E-07	3.947E-07	3.947E-07		
C	5.6	2.61	7300.	0.	0.	0.	644.0	373.7	644.0	2.372E-07	2.368E-07	2.368E-07		
C	8.2	0.33	7300.	0.	0.	0.	644.0	373.7	644.0	1.603E-07	1.600E-07	1.600E-07		
D	0.2	0.01	7300.	0.	0.	0.	453.5	111.1	515.1	2.494E-05	2.810E-05	2.494E-05		
D	1.6	4.97	7300.	0.	0.	0.	453.5	111.1	515.1	3.563E-06	4.014E-06	3.563E-06		
D	3.3	19.27	7300.	0.	0.	0.	453.5	111.1	481.0	1.781E-06	1.873E-06	1.781E-06		
D	5.6	16.55	7300.	0.	0.	0.	453.5	111.1	456.4	1.126E-06	1.124E-06	1.124E-06		
D	8.2	2.76	7300.	0.	0.	0.	453.5	111.1	453.5	7.657E-07	7.595E-07	7.595E-07		
D	24.5	0.06	7300.	0.	0.	0.	453.5	111.1	453.5	2.575E-07	2.555E-07	2.555E-07		
E	0.2	0.06	7300.	0.	0.	0.	322.5	67.5	410.0	5.173E-05	6.456E-05	5.173E-05		
E	1.6	8.92	7300.	0.	0.	0.	322.5	67.5	410.0	7.390E-06	9.223E-06	7.390E-06		
E	3.3	15.90	7300.	0.	0.	0.	322.5	67.5	357.4	3.956E-06	4.304E-06	3.956E-06		
E	5.6	4.41	7300.	0.	0.	0.	322.5	67.5	325.9	2.603E-06	2.582E-06	2.582E-06		
E	8.2	0.21	7300.	0.	0.	0.	322.5	67.5	322.5	1.778E-06	1.745E-06	1.745E-06		
E	10.7	0.02	7300.	0.	0.	0.	322.5	67.5	322.5	1.370E-06	1.345E-06	1.345E-06		
E	24.5	0.13	7300.	0.	0.	0.	322.5	67.5	322.5	5.980E-07	5.869E-07	5.869E-07		
F	0.2	0.03	7300.	0.	0.	0.	222.6	40.9	313.3	1.117E-04	1.504E-04	1.117E-04		
F	1.6	3.39	7300.	0.	0.	0.	222.6	40.9	313.3	1.595E-05	2.148E-05	1.595E-05		
F	3.3	0.79	7300.	0.	0.	0.	222.6	40.9	255.8	9.119E-06	1.002E-05	9.119E-06		
F	5.6	0.04	7300.	0.	0.	0.	222.6	40.9	225.6	6.202E-06	6.015E-06	6.015E-06		
G	0.2	0.01	7300.	0.	0.	0.	153.6	24.8	257.9	2.237E-04	3.389E-04	2.237E-04		
G	1.6	1.21	7300.	0.	0.	0.	153.6	24.8	257.9	3.195E-05	4.842E-05	3.195E-05		
G	3.3	0.06	7300.	0.	0.	0.	153.6	24.8	187.1	2.056E-05	2.260E-05	2.056E-05		
G	5.6	0.02	7300.	0.	0.	0.	153.6	24.8	156.4	1.476E-05	1.356E-05	1.356E-05		

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 1275 of 1411**

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Ground Release

SOURCE OF DATA:

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 10.1 meters

DELTA-T HEIGHTS: 10.1-45.7 meters

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

SSE SECTOR BOUNDARY DISTANCE = 7300.0 METERS

LATERAL PLUME MEANDER/BUILDING WAKE CREDIT ALLOWED

AS A FUNCTION OF DOWNWIND DISTANCE.

MEANDER CREDIT IS FOR WINDSPEEDS LESS THAN 6 MPS.

BUILDING WAKE CREDIT ALLOWED: C= 0.5 A= 2584. D= 54.3

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

2.237E-04	1.117E-04	5.173E-05	3.195E-05	2.494E-05	2.056E-05	1.595E-05	1.356E-05	9.119E-06	7.390E-06
0.010	0.035	0.099	1.311	1.322	1.385	4.770	4.791	5.585	14.508
0.00107	0.00390	0.01102	0.14662	0.14790	0.15492	0.53365	0.53599	0.62483	1.62310
6.015E-06	3.956E-06	3.563E-06	2.582E-06	1.781E-06	1.745E-06	1.345E-06	1.124E-06	8.459E-07	7.595E-07
14.550	30.453	35.427	39.836	59.104	59.313	59.333	75.884	76.574	79.332
1.62777	3.40689	3.96331	4.45660	6.61211	6.63549	6.63783	8.48942	8.56657	8.87517
5.869E-07	3.947E-07	2.555E-07	2.498E-07	2.368E-07	2.039E-07	1.600E-07	1.166E-07	9.514E-08	6.995E-08
79.458	82.070	82.133	82.927	85.539	86.375	86.709	90.178	94.399	97.910
8.88919	9.18143	9.18844	9.27728	9.56951	9.66303	9.70043	10.08852	10.56077	10.95353
5.708E-08	4.727E-08	3.857E-08							
99.791	99.979	100.000							
11.16394	11.18498	11.18732							

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE (2) =	0.146
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE (3) =	0.533
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE (4) =	1.621
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE (5) =	3.960
HANDCHECK GRAPH:	SLOPE LT -1.0 FOR LOW PERCENTAGES.	XSAVE (6) =	6.608

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(7)= 8.486
 HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(8)= 8.872

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
16	1	-8.40538	-14.89552	-1.52744
16	2	-10.35129	-15.25439	-1.64807
16	3	-11.04582	-15.78638	-1.85640
16	4	-11.81533	-15.88159	-1.90091
16	5	-12.54483	-17.42011	-2.77738
16	6	-13.23843	-18.46740	-3.47297
16	7	-13.69861	-35.74646	-16.05679
16	8	-14.09066	NUMXQ(K)= 8	
		3.621E-05	0.112	1.000
		2.068E-05	0.336	3.000
		1.547E-05	0.559	5.000
		9.678E-06	1.119	10.000
		7.205E-06	1.678	15.000
		5.754E-06	2.237	20.000
		4.799E-06	2.797	25.000
		4.116E-06	3.356	30.000
		3.601E-06	3.916	35.000
		3.042E-06	4.475	40.000
		2.600E-06	5.034	45.000
		2.252E-06	5.594	50.000
		1.972E-06	6.153	55.000
		1.733E-06	6.712	60.000
		1.500E-06	7.272	65.000
		1.308E-06	7.831	70.000
		1.149E-06	8.390	75.000
		1.656E-05	0.5	4.47

ANNUAL AVERAGE = 1.76E-07

K= 16 FIVEXQ(K)= 1.656E-05 FIVEPR(K)= 4.469

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 01/28/03

Page 1277 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Ground Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 10.1 meters

DELTA-T HEIGHTS: 10.1-45.7 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE ALL SECTOR.

STABILITY	WINDSPEED	FREQUENCY	DISTANCE	TERRAIN	HT	EFF	PLUME	HT	SIGMA-Y	SIGMA-Z	MEANDER-SY	** CHI/Q VALUES (SEC/CUBIC METER)		
CLASS	METER/SEC	PERCENT	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	METERS	MEANDER	BLDG WAKE	USED
AT 10.0 METERS												CA=1292.SQ.METERS		
A	1.6	2.07	7300.	0.	0.	0.	1000.0	1000.0	1000.0	2.039E-07	2.039E-07	2.039E-07		
A	3.3	3.09	7300.	0.	0.	0.	1000.0	1000.0	1000.0	9.517E-08	9.514E-08	9.514E-08		
A	5.6	1.12	7300.	0.	0.	0.	1000.0	1000.0	1000.0	5.710E-08	5.708E-08	5.708E-08		
A	8.2	0.09	7300.	0.	0.	0.	1000.0	1000.0	1000.0	3.858E-08	3.857E-08	3.857E-08		
A	24.5	0.01	7300.	0.	0.	0.	1000.0	1000.0	1000.0	1.298E-08	1.297E-08	1.297E-08		
B	1.6	1.14	7300.	0.	0.	0.	848.1	962.0	848.1	2.500E-07	2.498E-07	2.498E-07		
B	3.3	2.32	7300.	0.	0.	0.	848.1	962.0	848.1	1.166E-07	1.166E-07	1.166E-07		
B	5.6	1.66	7300.	0.	0.	0.	848.1	962.0	848.1	6.999E-08	6.995E-08	6.995E-08		
B	8.2	0.19	7300.	0.	0.	0.	848.1	962.0	848.1	4.729E-08	4.727E-08	4.727E-08		
B	10.7	0.00	7300.	0.	0.	0.	848.1	962.0	848.1	3.645E-08	3.643E-08	3.643E-08		
B	24.5	0.00	7300.	0.	0.	0.	848.1	962.0	848.1	1.591E-08	1.590E-08	1.590E-08		
C	1.6	0.70	7300.	0.	0.	0.	644.0	373.7	644.0	8.473E-07	8.459E-07	8.459E-07		
C	3.3	1.33	7300.	0.	0.	0.	644.0	373.7	644.0	3.954E-07	3.947E-07	3.947E-07		
C	5.6	1.13	7300.	0.	0.	0.	644.0	373.7	644.0	2.372E-07	2.368E-07	2.368E-07		
C	8.2	0.15	7300.	0.	0.	0.	644.0	373.7	644.0	1.603E-07	1.600E-07	1.600E-07		
C	10.7	0.00	7300.	0.	0.	0.	644.0	373.7	644.0	1.236E-07	1.234E-07	1.234E-07		
D	0.2	0.02	7300.	0.	0.	0.	453.5	111.1	453.5	2.833E-05	2.810E-05	2.810E-05		
D	1.6	8.11	7300.	0.	0.	0.	453.5	111.1	453.5	4.047E-06	4.014E-06	4.014E-06		
D	3.3	12.97	7300.	0.	0.	0.	453.5	111.1	453.5	1.889E-06	1.873E-06	1.873E-06		
D	5.6	8.31	7300.	0.	0.	0.	453.5	111.1	453.5	1.133E-06	1.124E-06	1.124E-06		
D	8.2	1.17	7300.	0.	0.	0.	453.5	111.1	453.5	7.657E-07	7.595E-07	7.595E-07		
D	10.7	0.01	7300.	0.	0.	0.	453.5	111.1	453.5	5.902E-07	5.854E-07	5.854E-07		
D	24.5	0.01	7300.	0.	0.	0.	453.5	111.1	453.5	2.575E-07	2.555E-07	2.555E-07		
E	0.2	0.13	7300.	0.	0.	0.	322.5	67.5	322.5	6.578E-05	6.456E-05	6.456E-05		
E	1.6	17.70	7300.	0.	0.	0.	322.5	67.5	322.5	9.397E-06	9.223E-06	9.223E-06		
E	3.3	17.17	7300.	0.	0.	0.	322.5	67.5	322.5	4.385E-06	4.304E-06	4.304E-06		
E	5.6	3.18	7300.	0.	0.	0.	322.5	67.5	322.5	2.631E-06	2.582E-06	2.582E-06		
E	8.2	0.17	7300.	0.	0.	0.	322.5	67.5	322.5	1.778E-06	1.745E-06	1.745E-06		
E	10.7	0.00	7300.	0.	0.	0.	322.5	67.5	322.5	1.370E-06	1.345E-06	1.345E-06		
E	24.5	0.02	7300.	0.	0.	0.	322.5	67.5	322.5	5.980E-07	5.869E-07	5.869E-07		
F	0.2	0.06	7300.	0.	0.	0.	222.6	40.9	222.6	1.572E-04	1.504E-04	1.504E-04		
F	1.6	8.14	7300.	0.	0.	0.	222.6	40.9	222.6	2.245E-05	2.148E-05	2.148E-05		
F	3.3	2.33	7300.	0.	0.	0.	222.6	40.9	222.6	1.048E-05	1.002E-05	1.002E-05		
F	5.6	0.02	7300.	0.	0.	0.	222.6	40.9	222.6	6.287E-06	6.015E-06	6.015E-06		

G	0.2	0.04	7300.	0.	0.	153.6	24.8	153.6	3.755E-04	3.389E-04	3.389E-04
G	1.6	4.43	7300.	0.	0.	153.6	24.8	153.6	5.364E-05	4.842E-05	4.842E-05
G	3.3	1.01	7300.	0.	0.	153.6	24.8	153.6	2.503E-05	2.260E-05	2.260E-05
G	5.6	0.00	7300.	0.	0.	153.6	24.8	153.6	1.502E-05	1.356E-05	1.356E-05

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1279 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 10.1 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.1-45.7 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

DIRECTION-INDEPENDENT (S.R.P 2.3.4) MODEL.

MINIMUM BOUNDARY DISTANCE = 7300.0 METERS.

BUILDING WAKE CREDIT ALLOWED: C= 0.5 A= 2584. D= 54.3

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

3.389E-04	1.504E-04	6.456E-05	4.842E-05	2.810E-05	2.260E-05	2.148E-05	1.356E-05	1.002E-05	9.223E-06
0.035	0.096	0.222	4.652	4.671	5.681	13.817	13.821	16.148	33.845
0.03507	0.09585	0.22210	4.65236	4.67106	5.68102	13.81680	13.82148	16.14766	33.84533
6.015E-06	4.304E-06	4.014E-06	2.582E-06	1.873E-06	1.745E-06	1.345E-06	1.124E-06	8.459E-07	7.595E-07
33.864	51.038	59.146	62.328	75.293	75.464	75.469	83.775	84.477	85.650
33.86403	51.03801	59.14574	62.32758	75.29340	75.46407	75.46874	83.77519	84.47655	85.65016
5.869E-07	5.854E-07	3.947E-07	2.555E-07	2.498E-07	2.368E-07	2.039E-07	1.600E-07	1.234E-07	1.166E-07
85.667	85.674	87.004	87.015	88.156	89.288	91.359	91.509	91.511	93.830
85.66653	85.67354	87.00378	87.01547	88.15635	89.28788	91.35922	91.50884	91.51118	93.83035
9.514E-08	6.995E-08	5.708E-08	4.727E-08	3.857E-08	3.643E-08	1.590E-08	1.297E-08		
96.916	98.581	99.698	99.892	99.986	99.988	99.991	100.000		
96.91634	98.58090	99.69840	99.89245	99.98596	99.98830	99.99063	99.99998		

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q	WITH RESPECT TO	WHEN THE WIND BLOWS
SEC/CUBIC METER	THE TOTAL TIME	INTO THIS SECTOR ONLY

1.011E-04	1.000	1.000
6.089E-05	3.000	3.000
4.628E-05	5.000	5.000
2.882E-05	10.000	10.000
2.093E-05	15.000	15.000
1.624E-05	20.000	20.000
1.306E-05	25.000	25.000
1.074E-05	30.000	30.000

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 4.649

Calculation No. PM-1055 Revision 0**Attachment J****Page 1280 of 1411**

8.956E-06	35.000	35.000
7.541E-06	40.000	40.000
6.386E-06	45.000	45.000
5.424E-06	50.000	50.000
4.606E-06	55.000	55.000
3.868E-06	60.000	60.000
3.097E-06	65.000	65.000
2.450E-06	70.000	70.000
1.903E-06	75.000	75.000
1.434E-06	80.000	80.000
8.920E-07	85.000	85.000
2.948E-07	90.000	90.000

4.628E-05	5.0	5.00
-----------	-----	------

K= 17 FIVEXQ(K)= 4.628E-05 FIVEPR(K)= 5.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1281 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 10.1 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.1-45.7 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

FIVE PERCENT OVERALL SITE LIMIT

BUILDING WAKE CREDIT ALLOWED: C= 0.5 A= 2584. D= 54.3

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED. THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR. THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

2.237E-04	1.117E-04	5.173E-05	3.195E-05	2.494E-05	2.056E-05	1.595E-05	1.356E-05	9.119E-06	7.390E-06
0.035	0.096	0.222	4.652	4.671	5.681	13.817	13.821	16.148	33.845
0.03507	0.09585	0.22210	4.65236	4.67106	5.68102	13.81680	13.82148	16.14766	33.84532
6.015E-06	3.956E-06	3.563E-06	2.582E-06	1.781E-06	1.745E-06	1.345E-06	1.124E-06	8.459E-07	7.595E-07
33.864	51.038	59.146	62.328	75.293	75.464	75.469	83.775	84.477	85.650
33.86403	51.03802	59.14575	62.32759	75.29342	75.46409	75.46876	83.77519	84.47657	85.65018
5.869E-07	5.854E-07	3.947E-07	2.555E-07	2.498E-07	2.368E-07	2.039E-07	1.600E-07	1.234E-07	1.166E-07
85.667	85.674	87.004	87.016	88.156	89.288	91.359	91.509	91.511	93.830
85.66654	85.67355	87.00379	87.01548	88.15636	89.28787	91.35921	91.50883	91.51116	93.83031
9.514E-08	6.995E-08	5.708E-08	4.727E-08	3.857E-08	3.643E-08	1.590E-08	1.297E-08		
96.916	98.581	99.698	99.892	99.986	99.988	99.991	100.000		
96.91631	98.58086	99.69836	99.89240	99.98589	99.98823	99.99056	99.99991		

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 4.649

K	I	XQSAVE(K,I)	XQINT(K,I)	XQSLOP(K,I)
18	1	-8.40538	-12.26369	-1.13840
18	2	-10.35129	-12.27977	-1.14797
18	3	-12.54483	-12.19166	-1.52956
18	4	-13.69861	-9.25157	-4.51377
18	5	-15.40582	-14.40481	-0.73418
18	6	-17.07083	NUMXQ(K)= 6	

6.673E-05	1.000	1.000
4.018E-05	3.000	3.000
3.070E-05	5.000	5.000
2.023E-05	10.000	10.000
1.526E-05	15.000	15.000
1.220E-05	20.000	20.000
1.007E-05	25.000	25.000
8.476E-06	30.000	30.000
7.225E-06	35.000	35.000
6.210E-06	40.000	40.000
5.364E-06	45.000	45.000
4.645E-06	50.000	50.000
4.022E-06	55.000	55.000
3.445E-06	60.000	60.000
2.816E-06	65.000	65.000
2.276E-06	70.000	70.000
1.809E-06	75.000	75.000
1.400E-06	80.000	80.000
8.920E-07	85.000	85.000
2.948E-07	90.000	90.000
3.070E-05	5.0	5.00

K= 18 FIVEXQ(K)= 3.070E-05 FIVEPR(K)= 5.000

K	HIGHPR	PR	GRNDVT(K)
1	-3.35890	0.03913	7.16050
2	-2.03897	2.07263	3.52922
3	-3.42797	0.03041	3.23970
4	-3.29192	0.04976	2.96101
5	-3.12377	0.08928	3.59423
6	-3.21792	0.06457	3.74028
7	-3.35960	0.03904	4.91057
8	-3.37633	0.03673	6.63198
9	-3.37593	0.03679	8.27142
10	-3.30341	0.04776	4.16751
11	-2.93591	0.16629	4.48639
12	-2.57624	0.49942	6.76889
13	-2.62672	0.43107	8.24935
14	-2.82508	0.23636	9.70638
15	-3.03218	0.12140	11.39525
16	-3.24267	0.05922	11.18732

K	HOURS(K)	TOTHR
1	3.42783	3.42783
2	181.56260	184.99040
3	2.66394	187.65440
4	4.35880	192.01320
5	7.82109	199.83420
6	5.65631	205.49060
7	3.41947	208.91000
8	3.21793	212.12800
9	3.22263	215.35060

Calculation No. PM-1055 Revision 0
Attachment J
Page 1283 of 1411

10	4.18388	219.53450
11	14.56709	234.10160
12	43.74879	277.85030
13	37.76197	315.61230
14	20.70481	336.31710
15	10.63488	346.95200
16	5.18743	352.13940

K	FIVEXQ	SVANN	SLTIME	TIMINT	I	TIME	XQT
1	1.447E-05	1.504E-07	-0.5446	-10.7658			
					1	8.0	-11.89830
					2	16.0	-12.27580
					3	72.0	-13.09494
					4	624.0	-14.27103
2	1.261E-05	9.865E-08	-0.5785	-10.8803			
					1	8.0	-12.08320
					2	16.0	-12.48416
					3	72.0	-13.35422
					4	624.0	-14.60340
3	1.247E-05	1.001E-07	-0.5754	-10.8936			
					1	8.0	-12.09012
					2	16.0	-12.48897
					3	72.0	-13.35445
					4	624.0	-14.59706
4	1.374E-05	9.602E-08	-0.5919	-10.7851			
					1	8.0	-12.01594
					2	16.0	-12.42624
					3	72.0	-13.31655
					4	624.0	-14.59482
5	1.898E-05	1.347E-07	-0.5901	-10.4630			
					1	8.0	-11.69008
					2	16.0	-12.09911
					3	72.0	-12.98666
					4	624.0	-14.26096
6	1.868E-05	1.269E-07	-0.5953	-10.4756			
					1	8.0	-11.71356
					2	16.0	-12.12622
					3	72.0	-13.02166
					4	624.0	-14.30729
7	1.478E-05	1.274E-07	-0.5669	-10.7292			
					1	8.0	-11.90813
					2	16.0	-12.30111
					3	72.0	-13.15384
					4	624.0	-14.37814
8	1.475E-05	1.488E-07	-0.5482	-10.7441			
					1	8.0	-11.88408
					2	16.0	-12.26408
					3	72.0	-13.08865
					4	624.0	-14.27254
9	1.534E-05	1.620E-07	-0.5427	-10.7089			
					1	8.0	-11.83749
					2	16.0	-12.21368
					3	72.0	-13.02999

10	1.692E-05	1.143E-07	-0.5960	-10.5738	4	624.0	-14.20200
					1	8.0	-11.81323
					2	16.0	-12.22637
					3	72.0	-13.12287
					4	624.0	-14.41002
11	2.808E-05	1.588E-07	-0.6172	-10.0526	1	8.0	-11.33605
					2	16.0	-11.76385
					3	72.0	-12.69214
					4	624.0	-14.02494
					1	8.0	-10.78191
12	4.809E-05	3.000E-07	-0.6055	-9.5228	2	16.0	-11.20160
					3	72.0	-12.11229
					4	624.0	-13.41982
					1	8.0	-10.83913
					2	16.0	-11.25377
13	4.495E-05	2.981E-07	-0.5982	-9.5952	3	72.0	-12.15351
					4	624.0	-13.44532
					1	8.0	-11.09693
					2	16.0	-11.50031
					3	72.0	-12.37562
14	3.397E-05	2.581E-07	-0.5820	-9.8868	4	624.0	-13.63235
					1	8.0	-11.38191
					2	16.0	-11.76355
					3	72.0	-12.59168
					4	624.0	-13.78066
15	2.446E-05	2.418E-07	-0.5506	-10.2370	1	8.0	-11.76022
					2	16.0	-12.13604
					3	72.0	-12.95154
					4	624.0	-14.12241
					1	8.0	-10.81389
16	1.656E-05	1.756E-07	-0.5422	-10.6327	2	16.0	-11.23041
					3	72.0	-12.13423
					4	624.0	-13.43189
					1	8.0	-11.15633
					2	16.0	-11.53894
17	4.628E-05	3.000E-07	-0.6009	-9.5643	3	72.0	-12.36916
					4	624.0	-13.56116
					1	8.0	-10.81389
					2	16.0	-11.23041
					3	72.0	-12.13423
18	3.070E-05	3.000E-07	-0.5520	-10.0085	4	624.0	-13.43189
					1	8.0	-11.15633
					2	16.0	-11.53894
					3	72.0	-12.36916
					4	624.0	-13.56116

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1285 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Ground Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 10.1 meters

DELTA-T HEIGHTS: 10.1-45.7 meters

RELATIVE CONCENTRATION (X/Q) VALUES (SEC/CUBIC METER)

DOWNWIND DISTANCE SECTOR (METERS)		VERSUS AVERAGING TIME					HOURS PER YEAR MAX 0-2 HR X/Q IS EXCEEDED		DOWNWIND SECTOR
		0-2 HOURS	0-8 HOURS	8-24 HOURS	1-4 DAYS	4-30 DAYS	ANNUAL AVERAGE	IN SECTOR	
S	7300.	1.45E-05	6.80E-06	4.66E-06	2.06E-06	6.34E-07	1.50E-07	3.4	S
SSW	7300.	1.26E-05	5.65E-06	3.79E-06	1.59E-06	4.55E-07	9.86E-08	181.6	SSW
SW	7300.	1.25E-05	5.61E-06	3.77E-06	1.59E-06	4.58E-07	1.00E-07	2.7	SW
WSW	7300.	1.37E-05	6.05E-06	4.01E-06	1.65E-06	4.59E-07	9.60E-08	4.4	WSW
W	7300.	1.90E-05	8.38E-06	5.56E-06	2.29E-06	6.41E-07	1.35E-07	7.8	W
WNW	7300.	1.87E-05	8.18E-06	5.42E-06	2.21E-06	6.12E-07	1.27E-07	5.7	WNW
NW	7300.	1.48E-05	6.74E-06	4.55E-06	1.94E-06	5.70E-07	1.27E-07	3.4	NW
NNW	7300.	1.48E-05	6.90E-06	4.72E-06	2.07E-06	6.33E-07	1.49E-07	3.2	NNW
N	7300.	1.53E-05	7.23E-06	4.96E-06	2.19E-06	6.79E-07	1.62E-07	3.2	N
NNE	7300.	1.69E-05	7.41E-06	4.90E-06	2.00E-06	5.52E-07	1.14E-07	4.2	NNE
NE	7300.	2.81E-05	1.19E-05	7.78E-06	3.08E-06	8.11E-07	1.59E-07	14.6	NE
ENE	7300.	4.81E-05	2.08E-05	1.37E-05	5.49E-06	1.49E-06	3.00E-07	43.7	ENE
E	7300.	4.50E-05	1.96E-05	1.30E-05	5.27E-06	1.45E-06	2.98E-07	37.8	E
ESE	7300.	3.40E-05	1.52E-05	1.01E-05	4.22E-06	1.20E-06	2.58E-07	20.7	ESE
SE	7300.	2.45E-05	1.14E-05	7.78E-06	3.40E-06	1.04E-06	2.42E-07	10.6	SE
SSE	7300.	1.66E-05	7.81E-06	5.36E-06	2.37E-06	7.36E-07	1.76E-07	5.2	SSE
MAX X/Q		4.81E-05					TOTAL HOURS AROUND SITE: 352.1		
SRP 2.3.4	7300.	4.63E-05	2.01E-05	1.33E-05	5.37E-06	1.47E-06	3.00E-07		
SITE LIMIT		3.07E-05	1.43E-05	9.74E-06	4.25E-06	1.29E-06	3.00E-07		

0.5 PERCENT X/Q TO AN INDIVIDUAL IS LIMITING.

****NOTE**:** VALUES ON THIS PAGE ARE APPROXIMATIONS ONLY.
CHECK THE REASONABLENESS OF THE ENVELOPES
COMPUTED FOR THE 0-2 HOUR VALUES. FOR ANY
FAULTY ENVELOPES, ADJUST THE ABOVE VALUES.

PRINTOUT OF INPUT CARDS

[illegible]

PAVAN Input**Reactor Building Stacks to EAB and LPZ (Tower 33' wind and 150'-33' Delta T Stability Class)**

1 1111

Peach Bottom

Ground Release

10.1 meters

10.1-45.7 meters

Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

```

7 0
2584. 54.3 10.0 10.1
0 0 0 8 54 26 15
88. 134. 141. 143. 102. 79. 50. 32. 8. 3. 4. 7. 15. 16. 24. 40.
168. 81. 31. 28. 44. 97. 109. 79. 71. 43. 54. 39. 93. 104. 77. 202.
28. 1. 1. 0. 0. 8. 6. 29. 98. 31. 39. 28. 58. 36. 25. 90.
1. 0. 0. 0. 0. 0. 0. 5. 13. 1. 3. 1. 4. 8. 3. 1.
0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0.
0. 1. 1. 0. 2. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0.
60. 56. 64. 67. 61. 44. 23. 13. 12. 2. 6. 6. 15. 12. 9. 38.
144. 40. 11. 15. 12. 31. 56. 72. 91. 45. 64. 42. 64. 71. 68. 166.
38. 2. 0. 0. 1. 6. 9. 34. 145. 46. 28. 24. 51. 71. 89. 168.
2. 0. 0. 0. 0. 0. 0. 7. 22. 1. 3. 0. 2. 16. 21. 9.
0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 1. 0. 0.
0. 0. 0. 0. 0. 0. 1. 0. 0. 0. 0. 0. 0. 0. 0. 0.
32. 46. 26. 48. 35. 27. 11. 5. 6. 0. 5. 4. 6. 7. 9. 33.
58. 10. 3. 8. 9. 10. 33. 53. 66. 24. 24. 21. 42. 37. 46. 125.
16. 1. 0. 0. 1. 1. 5. 17. 75. 31. 22. 22. 35. 53. 80. 125.
1. 0. 0. 0. 0. 1. 0. 3. 8. 0. 0. 0. 3. 12. 20. 16.
0. 0. 0. 0. 0. 0. 0. 1. 0. 0. 0. 0. 0. 0. 0. 0.
0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0.
389. 338. 437. 318. 296. 175. 154. 229. 177. 92. 78. 105. 122. 128. 192. 238.
571. 160. 66. 35. 65. 145. 381. 592. 544. 233. 188. 175. 297. 432. 740. 922.
220. 8. 0. 0. 2. 8. 77. 150. 325. 108. 78. 74. 214. 575. 922. 792.
23. 0. 0. 0. 0. 0. 2. 12. 45. 10. 5. 4. 43. 57. 169. 132.
0. 0. 0. 0. 0. 0. 0. 0. 0. 2. 0. 0. 0. 1. 0. 0.
2. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 3.
517. 416. 415. 383. 515. 470. 543. 600. 634. 375. 325. 395. 448. 498. 609. 427.
448. 92. 76. 74. 106. 177. 395. 677. 771. 391. 324. 434. 668. 1004. 948. 761.
73. 4. 1. 0. 6. 17. 52. 71. 202. 54. 46. 51. 123. 193. 257. 211.
4. 0. 0. 0. 0. 0. 1. 6. 25. 4. 0. 0. 6. 8. 9. 10.
0. 0. 0. 0. 0. 0. 0. 0. 1. 0. 0. 0. 0. 0. 0. 1.
1. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 6.
130. 81. 74. 92. 180. 224. 129. 99. 121. 196. 294. 451. 500. 416. 331. 162.
7. 0. 5. 2. 3. 14. 24. 18. 49. 46. 97. 252. 213. 136. 91. 38.
0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 1. 3. 0. 1. 1. 2.
0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0.
0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0.
0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0.
35. 30. 29. 49. 88. 55. 32. 27. 23. 33. 166. 492. 425. 234. 119. 58.
1. 4. 0. 0. 3. 5. 2. 0. 0. 7. 59. 254. 71. 16. 7. 3.
0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 1. 0. 0. 0. 1.
0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0.
0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0.
0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0.

```

101. 0.50 3.50 7.50 12.5 18.5 24.0 55.0

Attachment J

Page 1288 of 1411

0823.0823.0823.0823.0823.0823.0823.0823.0823.0823.0823.0823.0823.0823.0823.

1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.

1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.

1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.

PAVAN Output

Reactor Building Stacks to EAB and LPZ (Tower 33' wind and 150'-33' Delta T Stability Class)

Copyright (c) 1990 Ergo Computing, Inc. for Lahey

| | | | | | | | | | | | | | | | | | | | |
|----------------|---|----------|---------|------------------|---------|---------|---------|---------|---------|--------|--------|---------|---------|---------|---------|---------|--------------|---------|----|
| 1 | 00010 | 01111 | 00000 | 000000 | 00000 | 00000 | 00000 | 00000 | 00000 | 00000 | 00000 | 00000 | 00000 | 00000 | 00000 | 2 | Peach Bottom | | |
| Ground Release | | | | | | | | | | | | | | | | | | | |
| 3 | 10.1 meters | | | 10.1-45.7 meters | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | | | | |
| 5 | Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T | | | | | | | | | | | | | | | | 6 | 7 42774 | .0 |
| 7 | 0.500 | 2584.000 | 54.300 | 10.000 | 10.100 | | | | | | | | | | | | | | |
| 8 | 0.000 | 0.000 | 0.000 | 8.000 | 54.000 | 26.000 | 15.000 | | | | | | | | | | | | |
| 9 | 88.000 | 134.000 | 141.000 | 143.000 | 102.000 | 79.000 | 50.000 | 32.000 | 8.000 | 3.000 | 4.000 | 7.000 | 15.000 | 16.000 | 24.000 | 40.000 | | | |
| 9 | 168.000 | 81.000 | 31.000 | 28.000 | 44.000 | 97.000 | 109.000 | 79.000 | 71.000 | 43.000 | 54.000 | 39.000 | 93.000 | 104.000 | 77.000 | 202.000 | | | |
| 9 | 28.000 | 1.000 | 1.000 | 0.000 | 0.000 | 8.000 | 6.000 | 29.000 | 98.000 | 31.000 | 39.000 | 28.000 | 58.000 | 36.000 | 25.000 | 90.000 | | | |
| 9 | 1.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 5.000 | 13.000 | 1.000 | 3.000 | 1.000 | 4.000 | 8.000 | 3.000 | 1.000 | | | |
| 9 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | | | |
| 9 | 0.000 | 1.000 | 1.000 | 0.000 | 2.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | | | |
| 9 | 60.000 | 56.000 | 64.000 | 67.000 | 61.000 | 44.000 | 23.000 | 13.000 | 12.000 | 2.000 | 6.000 | 6.000 | 15.000 | 12.000 | 9.000 | 38.000 | | | |
| 9 | 144.000 | 40.000 | 11.000 | 15.000 | 12.000 | 31.000 | 56.000 | 72.000 | 91.000 | 45.000 | 64.000 | 42.000 | 64.000 | 71.000 | 68.000 | 166.000 | | | |
| 9 | 38.000 | 2.000 | 0.000 | 0.000 | 1.000 | 6.000 | 9.000 | 34.000 | 145.000 | 46.000 | 28.000 | 24.000 | 51.000 | 71.000 | 89.000 | 168.000 | | | |
| 9 | 2.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 7.000 | 22.000 | 1.000 | 3.000 | 0.000 | 2.000 | 16.000 | 21.000 | 9.000 | | | |
| 9 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1.000 | 0.000 | 0.000 | | | |
| 9 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | | | |
| 9 | 32.000 | 46.000 | 26.000 | 48.000 | 35.000 | 27.000 | 11.000 | 5.000 | 6.000 | 0.000 | 5.000 | 4.000 | 6.000 | 7.000 | 9.000 | 33.000 | | | |
| 9 | 58.000 | 10.000 | 3.000 | 8.000 | 9.000 | 10.000 | 33.000 | 53.000 | 66.000 | 24.000 | 24.000 | 21.000 | 42.000 | 37.000 | 46.000 | 125.000 | | | |
| 9 | 16.000 | 1.000 | 0.000 | 0.000 | 1.000 | 1.000 | 5.000 | 17.000 | 75.000 | 31.000 | 22.000 | 22.000 | 35.000 | 53.000 | 80.000 | 125.000 | | | |
| 9 | 1.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1.000 | 0.000 | 3.000 | 8.000 | 0.000 | 0.000 | 0.000 | 3.000 | 12.000 | 20.000 | 16.000 | | | |
| 9 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | | | |
| 9 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | | | |
| 9 | 389.000 | 338.000 | 437.000 | 318.000 | 296.000 | 175.000 | 154.000 | 229.000 | 177.000 | 92.000 | 78.000 | 105.000 | 122.000 | 128.000 | 192.000 | 238.000 | | | |
| 9 | 571.000 | 160.000 | 66.000 | 35.000 | 65.000 | 145.000 | 381.000 | 59 | | | | | | | | | | | |

[illegible][illegible][illegible]

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1292 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Ground Release

SOURCE OF DATA:

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 10.1 meters

DELTA-T HEIGHTS: 10.1-45.7 meters

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION

ATMOSPHERIC STABILITY CLASS A

WIND SPEED (M/S)

| TOWER RELEASE | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | TOTAL |
|---------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.22 0.22 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.56 1.56 | 0.206 | 0.313 | 0.330 | 0.334 | 0.238 | 0.185 | 0.117 | 0.075 | 0.019 | 0.007 | 0.009 | 0.016 | 0.035 | 0.037 | 0.056 | 0.094 | 2.071 |
| 3.35 3.34 | 0.393 | 0.189 | 0.072 | 0.065 | 0.103 | 0.227 | 0.255 | 0.185 | 0.166 | 0.101 | 0.126 | 0.091 | 0.217 | 0.243 | 0.180 | 0.472 | 3.086 |
| 5.59 5.57 | 0.065 | 0.002 | 0.002 | 0.000 | 0.000 | 0.019 | 0.014 | 0.068 | 0.229 | 0.072 | 0.091 | 0.065 | 0.136 | 0.084 | 0.058 | 0.210 | 1.118 |
| 8.27 8.25 | 0.002 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.012 | 0.030 | 0.002 | 0.007 | 0.002 | 0.009 | 0.019 | 0.007 | 0.002 | 0.094 |
| 10.73 10.70 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 24.59 24.53 | 0.000 | 0.002 | 0.002 | 0.000 | 0.005 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.009 |
| TOTAL | 0.67 | 0.51 | 0.41 | 0.40 | 0.35 | 0.43 | 0.39 | 0.34 | 0.44 | 0.18 | 0.23 | 0.18 | 0.40 | 0.38 | 0.30 | 0.78 | 6.38 |

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION

ATMOSPHERIC STABILITY CLASS B

WIND SPEED (M/S)

| TOWER RELEASE | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | TOTAL |
|---------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.22 0.22 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.56 1.56 | 0.140 | 0.131 | 0.150 | 0.157 | 0.143 | 0.103 | 0.054 | 0.030 | 0.028 | 0.005 | 0.014 | 0.014 | 0.035 | 0.028 | 0.021 | 0.089 | 1.141 |
| 3.35 3.34 | 0.337 | 0.094 | 0.026 | 0.035 | 0.028 | 0.072 | 0.131 | 0.168 | 0.213 | 0.105 | 0.150 | 0.098 | 0.150 | 0.166 | 0.159 | 0.388 | 2.319 |
| 5.59 5.57 | 0.089 | 0.005 | 0.000 | 0.000 | 0.002 | 0.014 | 0.021 | 0.079 | 0.339 | 0.108 | 0.065 | 0.056 | 0.119 | 0.166 | 0.208 | 0.393 | 1.665 |
| 8.27 8.25 | 0.005 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.016 | 0.051 | 0.002 | 0.007 | 0.000 | 0.005 | 0.037 | 0.049 | 0.021 | 0.194 |
| 10.73 10.70 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.002 | 0.000 | 0.000 | 0.002 |
| 24.59 24.53 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.002 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.002 |
| TOTAL | 0.57 | 0.23 | 0.18 | 0.19 | 0.17 | 0.19 | 0.21 | 0.29 | 0.63 | 0.22 | 0.24 | 0.17 | 0.31 | 0.40 | 0.44 | 0.89 | 5.32 |

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION

ATMOSPHERIC STABILITY CLASS C

WIND SPEED (M/S)

| TOWER RELEASE | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | TOTAL |
|---------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.22 0.22 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1.56 1.56 | 0.075 | 0.108 | 0.061 | 0.112 | 0.082 | 0.063 | 0.026 | 0.012 | 0.014 | 0.000 | 0.012 | 0.009 | 0.014 | 0.016 | 0.021 | 0.077 | 0.701 |
| 3.35 3.34 | 0.136 | 0.023 | 0.007 | 0.019 | 0.021 | 0.023 | 0.077 | 0.124 | 0.154 | 0.056 | 0.056 | 0.049 | 0.098 | 0.087 | 0.108 | 0.292 | 1.330 |
| 5.59 5.57 | 0.037 | 0.002 | 0.000 | 0.000 | 0.002 | 0.002 | 0.012 | 0.040 | 0.175 | 0.072 | 0.051 | 0.051 | 0.082 | 0.124 | 0.187 | 0.292 | 1.132 |
| 8.27 8.25 | 0.002 | 0.000 | 0.000 | 0.000 | 0.000 | 0.002 | 0.000 | 0.007 | 0.019 | 0.000 | 0.000 | 0.000 | 0.007 | 0.028 | 0.047 | 0.037 | 0.150 |
| 10.73 10.70 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.002 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.002 |
| 24.59 24.53 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| TOTAL | 0.25 | 0.13 | 0.07 | 0.13 | 0.11 | 0.09 | 0.11 | 0.18 | 0.36 | 0.13 | 0.12 | 0.11 | 0.20 | 0.25 | 0.36 | 0.70 | 3.32 |

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION

ATMOSPHERIC STABILITY CLASS D

WIND SPEED (M/S)

| TOWER RELEASE | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | TOTAL |
|---------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.22 0.22 | 0.002 | 0.002 | 0.002 | 0.002 | 0.002 | 0.001 | 0.001 | 0.001 | 0.001 | 0.000 | 0.000 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 0.019 |
| 1.56 1.56 | 0.909 | 0.790 | 1.022 | 0.743 | 0.692 | 0.409 | 0.360 | 0.535 | 0.414 | 0.215 | 0.182 | 0.245 | 0.285 | 0.299 | 0.449 | 0.556 | 8.108 |

Calculation No. PM-1055 Revision 0
Attachment J
Page 1293 of 1411

| | | | | | | | | | | | | | | | | | | |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| 3.35 | 3.34 | 1.335 | 0.374 | 0.154 | 0.082 | 0.152 | 0.339 | 0.891 | 1.384 | 1.272 | 0.545 | 0.440 | 0.409 | 0.694 | 1.010 | 1.730 | 2.156 | 12.966 |
| 5.59 | 5.57 | 0.514 | 0.019 | 0.000 | 0.000 | 0.005 | 0.019 | 0.180 | 0.351 | 0.760 | 0.252 | 0.182 | 0.173 | 0.500 | 1.344 | 2.156 | 1.852 | 8.306 |
| 8.27 | 8.25 | 0.054 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.005 | 0.028 | 0.105 | 0.023 | 0.012 | 0.009 | 0.101 | 0.133 | 0.395 | 0.309 | 1.174 |
| 10.73 | 10.70 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.005 | 0.000 | 0.000 | 0.000 | 0.002 | 0.000 | 0.000 | 0.007 |
| 24.59 | 24.53 | 0.005 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.007 | 0.012 |
| TOTAL | | 2.82 | 1.18 | 1.18 | 0.83 | 0.85 | 0.77 | 1.44 | 2.30 | 2.55 | 1.04 | 0.82 | 0.84 | 1.58 | 2.79 | 4.73 | 4.88 | 30.59 |

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION
WIND SPEED (M/S)
ATMOSPHERIC STABILITY CLASS E

| TOWER RELEASE | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | TOTAL |
|---------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| 0.22 0.22 | 0.009 | 0.007 | 0.007 | 0.006 | 0.009 | 0.008 | 0.009 | 0.010 | 0.011 | 0.006 | 0.005 | 0.007 | 0.007 | 0.008 | 0.010 | 0.007 | 0.126 |
| 1.56 1.56 | 1.209 | 0.973 | 0.970 | 0.895 | 1.204 | 1.099 | 1.269 | 1.403 | 1.482 | 0.877 | 0.760 | 0.923 | 1.047 | 1.164 | 1.424 | 0.998 | 17.698 |
| 3.35 3.34 | 1.047 | 0.215 | 0.178 | 0.173 | 0.248 | 0.414 | 0.923 | 1.583 | 1.802 | 0.914 | 0.757 | 1.015 | 1.562 | 2.347 | 2.216 | 1.779 | 17.174 |
| 5.59 5.56 | 0.171 | 0.009 | 0.002 | 0.000 | 0.014 | 0.040 | 0.122 | 0.166 | 0.472 | 0.126 | 0.108 | 0.119 | 0.288 | 0.451 | 0.601 | 0.493 | 3.182 |
| 8.27 8.23 | 0.009 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.002 | 0.014 | 0.058 | 0.009 | 0.000 | 0.000 | 0.014 | 0.019 | 0.021 | 0.023 | 0.171 |
| 10.73 10.68 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.002 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.002 | 0.005 |
| 24.59 24.47 | 0.002 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.014 | 0.016 |
| TOTAL | 2.45 | 1.20 | 1.16 | 1.07 | 1.47 | 1.56 | 2.33 | 3.18 | 3.83 | 1.93 | 1.63 | 2.06 | 2.92 | 3.99 | 4.27 | 3.32 | 38.37 |

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION
WIND SPEED (M/S)
ATMOSPHERIC STABILITY CLASS F

| TOWER RELEASE | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | TOTAL |
|---------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.22 0.22 | 0.002 | 0.001 | 0.001 | 0.002 | 0.003 | 0.004 | 0.002 | 0.002 | 0.002 | 0.003 | 0.005 | 0.008 | 0.009 | 0.007 | 0.006 | 0.003 | 0.061 |
| 1.56 1.56 | 0.304 | 0.189 | 0.173 | 0.215 | 0.421 | 0.524 | 0.302 | 0.231 | 0.283 | 0.458 | 0.687 | 1.054 | 1.169 | 0.973 | 0.774 | 0.379 | 8.136 |
| 3.35 3.34 | 0.016 | 0.000 | 0.012 | 0.005 | 0.007 | 0.033 | 0.056 | 0.042 | 0.115 | 0.108 | 0.227 | 0.589 | 0.498 | 0.318 | 0.213 | 0.089 | 2.326 |
| 5.59 5.56 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.002 | 0.007 | 0.000 | 0.002 | 0.002 | 0.005 | 0.019 |
| 8.27 8.23 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 10.73 10.68 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 24.59 24.47 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| TOTAL | 0.32 | 0.19 | 0.19 | 0.22 | 0.43 | 0.56 | 0.36 | 0.28 | 0.40 | 0.57 | 0.92 | 1.66 | 1.68 | 1.30 | 0.99 | 0.48 | 10.54 |

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION
WIND SPEED (M/S)
ATMOSPHERIC STABILITY CLASS G

| TOWER RELEASE | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | TOTAL |
|---------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.22 0.22 | 0.001 | 0.001 | 0.001 | 0.001 | 0.002 | 0.001 | 0.001 | 0.000 | 0.000 | 0.001 | 0.003 | 0.009 | 0.008 | 0.004 | 0.002 | 0.001 | 0.035 |
| 1.56 1.56 | 0.082 | 0.070 | 0.068 | 0.115 | 0.206 | 0.129 | 0.075 | 0.063 | 0.054 | 0.077 | 0.388 | 1.150 | 0.994 | 0.547 | 0.278 | 0.136 | 4.430 |
| 3.35 3.34 | 0.002 | 0.009 | 0.000 | 0.000 | 0.007 | 0.012 | 0.005 | 0.000 | 0.000 | 0.016 | 0.138 | 0.594 | 0.166 | 0.037 | 0.016 | 0.007 | 1.010 |
| 5.59 5.56 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.002 | 0.000 | 0.000 | 0.000 | 0.002 | 0.005 |
| 8.27 8.23 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 10.73 10.68 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 24.59 24.47 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| TOTAL | 0.08 | 0.08 | 0.07 | 0.12 | 0.21 | 0.14 | 0.08 | 0.06 | 0.05 | 0.09 | 0.53 | 1.76 | 1.17 | 0.59 | 0.30 | 0.15 | 5.48 |

WIND MEASURED AT 10.1 METERS.

WIND SPEED CORRECTED TO THE RELEASE HEIGHT OF 10.0 METERS.

OVERALL WIND DIRECTION FREQUENCY

| WIND DIRECTION: | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW |
|-----------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|
| FREQUENCY: | 7.2 | 3.5 | 3.2 | 3.0 | 3.6 | 3.7 | 4.9 | 6.6 | 8.3 | 4.2 | 4.5 | 6.8 | 8.2 | 9.7 | 11.4 | 11.2 |

OVERALL WIND SPEED FREQUENCY AS MEASURED ON THE TOWER:

MAX.WIND SPEED (M/S): 0.224 1.565 3.353 5.588 8.270 10.729 24.587
WIND SPEED FREQUENCY: 0.24 42.29 40.21 15.43 1.78 0.02 0.04

BUILDING AND RELEASE CHARACTERISTICS:

RELEASE HEIGHT: 10.00 METERS
MIXING VOLUME COEFFICIENT: 0.50
BUILDING CROSS-SECTIONAL AREA: 2584.00 SQUARE METERS

BOUNDARY DISTANCES (METERS) FROM THE SOURCE FOR EACH DOWNWIND SECTOR:

| DOWNWIND SECTOR | S | SSW | SW | WSW | W | WNW | NW | NNW | N | NNE | NE | ENE | E | ESE | SE | SSE |
|-----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| BOUNDARY 1 | 823. | 823. | 823. | 823. | 823. | 823. | 823. | 823. | 823. | 823. | 823. | 823. | 823. | 823. | 823. | 823. |
| BOUNDARY 2 | 7300. | 7300. | 7300. | 7300. | 7300. | 7300. | 7300. | 7300. | 7300. | 7300. | 7300. | 7300. | 7300. | 7300. | 7300. | 7300. |

THE CONVERSION FACTOR APPLIED TO THE WIND SPEED CLASSES IS 0.447

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 1295 of 1411**

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 10.1 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.1-45.7 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

WINDSPEEDS ADJUSTED TO 10.0 METERS.

PERCENT OF THE TIME A GIVEN WINDSPEED IS LOWER:

| WINDSPEED
(METER/SEC) | CUMULATIVE FREQUENCY
(PERCENT) |
|--------------------------|-----------------------------------|
| 0.22 | 0.22 |
| 0.22 | 0.24 |
| 1.56 | 30.50 |
| 1.56 | 42.53 |
| 3.34 | 63.04 |
| 3.34 | 82.74 |
| 5.56 | 85.94 |
| 5.57 | 98.16 |
| 8.23 | 98.33 |
| 8.25 | 99.94 |
| 10.68 | 99.95 |
| 10.70 | 99.96 |
| 24.47 | 99.98 |
| 24.53 | 100.00 |

| WINDSPEED
(INTERPOLATED)
(METER/SEC) | CUMULATIVE FREQUENCY
(PERCENT) |
|--|-----------------------------------|
| 0.22 | 0.24 |
| 1.56 | 42.53 |
| 3.34 | 82.74 |
| 5.57 | 98.16 |
| 8.25 | 99.94 |
| 10.69 | 99.96 |
| 24.50 | 100.00 |

LOG-NORMAL INTERPOLATION PERCENTILES

| WINDSPEED
(METER/SEC) | CUMULATIVE FREQUENCY
(PERCENT) |
|--------------------------|-----------------------------------|
| 0.32 | 1.00 |
| 0.45 | 3.00 |
| 0.53 | 5.00 |
| 0.69 | 10.00 |
| 0.83 | 15.00 |
| 0.96 | 20.00 |

| | |
|------|-------|
| 1.09 | 25.00 |
| 1.21 | 30.00 |
| 1.35 | 35.00 |
| 1.48 | 40.00 |
| 1.62 | 45.00 |
| 1.77 | 50.00 |
| 1.92 | 55.00 |
| 2.10 | 60.00 |
| 2.29 | 65.00 |
| 2.52 | 70.00 |
| 2.79 | 75.00 |
| 3.12 | 80.00 |
| 3.55 | 85.00 |
| 3.88 | 90.00 |

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1297 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Ground Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 10.1 meters

DELTA-T HEIGHTS: 10.1-45.7 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE S SECTOR.

| STABILITY CLASS | WINDSPEED
METER/SEC
AT 10.0 METERS | FREQUENCY
PERCENT | DISTANCE
METERS | TERRAIN
METERS | HT
METERS | EFF
METERS | PLUME
METERS | HT
METERS | SIGMA-Y
METERS | SIGMA-Z
METERS | MEANDER-SY
METERS | ** CHI/Q
MEANDER | VALUES (SEC/CUBIC METER)
BLDG WAKE | USED
CA=1292.SQ.METERS |
|-----------------|--|----------------------|--------------------|-------------------|--------------|---------------|-----------------|--------------|-------------------|-------------------|----------------------|---------------------|---------------------------------------|---------------------------|
| A | 1.6 | 2.87 | 823. | 0. | 0. | 0. | 157.1 | 310.1 | 157.1 | 4.187E-06 | 4.152E-06 | 4.152E-06 | | |
| A | 3.3 | 5.49 | 823. | 0. | 0. | 0. | 157.1 | 310.1 | 157.1 | 1.954E-06 | 1.937E-06 | 1.937E-06 | | |
| A | 5.6 | 0.91 | 823. | 0. | 0. | 0. | 157.1 | 310.1 | 157.1 | 1.172E-06 | 1.162E-06 | 1.162E-06 | | |
| A | 8.2 | 0.03 | 823. | 0. | 0. | 0. | 157.1 | 310.1 | 157.1 | 7.921E-07 | 7.854E-07 | 7.854E-07 | | |
| B | 1.6 | 1.96 | 823. | 0. | 0. | 0. | 118.1 | 88.8 | 118.1 | 1.945E-05 | 1.871E-05 | 1.871E-05 | | |
| B | 3.3 | 4.70 | 823. | 0. | 0. | 0. | 118.1 | 88.8 | 118.1 | 9.075E-06 | 8.732E-06 | 8.732E-06 | | |
| B | 5.6 | 1.24 | 823. | 0. | 0. | 0. | 118.1 | 88.8 | 118.1 | 5.445E-06 | 5.239E-06 | 5.239E-06 | | |
| B | 8.2 | 0.07 | 823. | 0. | 0. | 0. | 118.1 | 88.8 | 118.1 | 3.679E-06 | 3.540E-06 | 3.540E-06 | | |
| C | 1.6 | 1.04 | 823. | 0. | 0. | 0. | 89.7 | 51.2 | 89.7 | 4.443E-05 | 4.078E-05 | 4.078E-05 | | |
| C | 3.3 | 1.89 | 823. | 0. | 0. | 0. | 89.7 | 51.2 | 89.7 | 2.073E-05 | 1.903E-05 | 1.903E-05 | | |
| C | 5.6 | 0.52 | 823. | 0. | 0. | 0. | 89.7 | 51.2 | 89.7 | 1.244E-05 | 1.142E-05 | 1.142E-05 | | |
| C | 8.2 | 0.03 | 823. | 0. | 0. | 0. | 89.7 | 51.2 | 89.7 | 8.406E-06 | 7.714E-06 | 7.714E-06 | | |
| D | 0.2 | 0.03 | 823. | 0. | 0. | 0. | 63.2 | 27.1 | 124.7 | 4.217E-04 | 6.716E-04 | 4.217E-04 | | |
| D | 1.6 | 12.70 | 823. | 0. | 0. | 0. | 63.2 | 27.1 | 124.7 | 6.024E-05 | 9.594E-05 | 6.024E-05 | | |
| D | 3.3 | 18.64 | 823. | 0. | 0. | 0. | 63.2 | 27.1 | 90.6 | 3.869E-05 | 4.477E-05 | 3.869E-05 | | |
| D | 5.6 | 7.18 | 823. | 0. | 0. | 0. | 63.2 | 27.1 | 66.1 | 3.183E-05 | 2.686E-05 | 2.686E-05 | | |
| D | 8.2 | 0.75 | 823. | 0. | 0. | 0. | 63.2 | 27.1 | 63.2 | 2.250E-05 | 1.815E-05 | 1.815E-05 | | |
| D | 24.5 | 0.07 | 823. | 0. | 0. | 0. | 63.2 | 27.1 | 63.2 | 7.570E-06 | 6.105E-06 | 6.105E-06 | | |
| E | 0.2 | 0.12 | 823. | 0. | 0. | 0. | 44.9 | 18.7 | 132.5 | 5.778E-04 | 1.144E-03 | 5.778E-04 | | |
| E | 1.6 | 16.88 | 823. | 0. | 0. | 0. | 44.9 | 18.7 | 132.5 | 8.255E-05 | 1.634E-04 | 8.255E-05 | | |
| E | 3.3 | 14.63 | 823. | 0. | 0. | 0. | 44.9 | 18.7 | 79.9 | 6.389E-05 | 7.627E-05 | 6.389E-05 | | |
| E | 5.6 | 2.38 | 823. | 0. | 0. | 0. | 44.9 | 18.7 | 48.4 | 6.329E-05 | 4.576E-05 | 4.576E-05 | | |
| E | 8.2 | 0.13 | 823. | 0. | 0. | 0. | 44.9 | 18.7 | 44.9 | 4.606E-05 | 3.092E-05 | 3.092E-05 | | |
| E | 24.5 | 0.03 | 823. | 0. | 0. | 0. | 44.9 | 18.7 | 44.9 | 1.549E-05 | 1.040E-05 | 1.040E-05 | | |
| F | 0.2 | 0.03 | 823. | 0. | 0. | 0. | 31.0 | 12.0 | 121.7 | 9.797E-04 | 1.827E-03 | 9.797E-04 | | |
| F | 1.6 | 4.24 | 823. | 0. | 0. | 0. | 31.0 | 12.0 | 121.7 | 1.400E-04 | 2.609E-04 | 1.400E-04 | | |
| F | 3.3 | 0.23 | 823. | 0. | 0. | 0. | 31.0 | 12.0 | 64.2 | 1.238E-04 | 1.218E-04 | 1.218E-04 | | |
| G | 0.2 | 0.01 | 823. | 0. | 0. | 0. | 21.4 | 7.7 | 125.7 | 1.477E-03 | 2.891E-03 | 1.477E-03 | | |
| G | 1.6 | 1.14 | 823. | 0. | 0. | 0. | 21.4 | 7.7 | 125.7 | 2.109E-04 | 4.129E-04 | 2.109E-04 | | |
| G | 3.3 | 0.03 | 823. | 0. | 0. | 0. | 21.4 | 7.7 | 54.9 | 2.255E-04 | 1.927E-04 | 1.927E-04 | | |

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1298 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 10.1 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.1-45.7 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

S SECTOR BOUNDARY DISTANCE = 823.0 METERS

LATERAL PLUME MEANDER/BUILDING WAKE CREDIT ALLOWED

AS A FUNCTION OF DOWNWIND DISTANCE.

MEANDER CREDIT IS FOR WINDSPEEDS LESS THAN 6 MPS.

BUILDING WAKE CREDIT ALLOWED: C= 0.5 A= 2584. D= 54.3

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

| | | | | | | | | | |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 1.477E-03 | 9.797E-04 | 5.778E-04 | 4.217E-04 | 2.109E-04 | 1.927E-04 | 1.400E-04 | 1.218E-04 | 8.255E-05 | 6.389E-05 |
| 0.009 | 0.041 | 0.161 | 0.190 | 1.333 | 1.366 | 5.610 | 5.839 | 22.719 | 37.346 |
| 0.00065 | 0.00292 | 0.01154 | 0.01364 | 0.09546 | 0.09780 | 0.40172 | 0.41809 | 1.62677 | 2.67413 |
| 6.024E-05 | 4.576E-05 | 4.078E-05 | 3.869E-05 | 3.092E-05 | 2.686E-05 | 1.903E-05 | 1.871E-05 | 1.815E-05 | 1.142E-05 |
| 50.046 | 52.430 | 53.474 | 72.117 | 72.248 | 79.431 | 81.324 | 83.283 | 84.034 | 84.557 |
| 3.58356 | 3.75423 | 3.82904 | 5.16396 | 5.17332 | 5.68765 | 5.82324 | 5.96351 | 6.01729 | 6.05469 |
| 1.040E-05 | 8.732E-06 | 7.714E-06 | 6.105E-06 | 5.239E-06 | 4.152E-06 | 3.540E-06 | 1.937E-06 | 1.162E-06 | 7.854E-07 |
| 84.589 | 89.291 | 89.324 | 89.389 | 90.630 | 93.503 | 93.568 | 99.053 | 99.967 | 100.000 |
| 6.05703 | 6.39368 | 6.39602 | 6.40070 | 6.48954 | 6.69527 | 6.69994 | 7.09271 | 7.15817 | 7.16050 |

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.003
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 3.580
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 5.160
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5)= 5.684
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(6)= 6.013

K I XQSAVE(K,I) XQINT(K,I) XQSLOP(K,I)
1 1 -6.51806 -11.75655 -1.20127
1 2 -6.92826 -11.98287 -1.25757

Calculation No. PM-1055 Revision 0

Attachment J

Page 1299 of 1411

| | | | |
|-----------|-----------|-------------|-----------|
| 1 3 | -9.71722 | -14.35068 | -2.57185 |
| 1 4 | -10.15982 | -22.64514 | -7.66200 |
| 1 5 | -10.52476 | -32.48936 | -13.88511 |
| 1 6 | -10.91680 | NUMXQ(K)= 6 | |
| 3.446E-04 | 0.072 | 1.000 | |
| 2.268E-04 | 0.215 | 3.000 | |
| 1.840E-04 | 0.358 | 5.000 | |
| 1.361E-04 | 0.716 | 10.000 | |
| 1.127E-04 | 1.074 | 15.000 | |
| 9.803E-05 | 1.432 | 20.000 | |
| 8.762E-05 | 1.790 | 25.000 | |
| 7.973E-05 | 2.148 | 30.000 | |
| 7.345E-05 | 2.506 | 35.000 | |
| 6.831E-05 | 2.864 | 40.000 | |
| 6.398E-05 | 3.222 | 45.000 | |
| 6.027E-05 | 3.580 | 50.000 | |
| 5.389E-05 | 3.938 | 55.000 | |
| 4.854E-05 | 4.296 | 60.000 | |
| 4.403E-05 | 4.654 | 65.000 | |
| 4.016E-05 | 5.012 | 70.000 | |
| 3.340E-05 | 5.370 | 75.000 | |
| 2.557E-05 | 5.728 | 80.000 | |
| | | | |
| 1.596E-04 | 0.5 | 6.98 | |

ANNUAL AVERAGE = 3.66E-06

K= 1 FIVEXQ(K)= 1.596E-04 FIVEPR(K)= 6.983

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 01/28/03

Page 1300 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Ground Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 10.1 meters

DELTA-T HEIGHTS: 10.1-45.7 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE SSW SECTOR.

| STABILITY | WINDSPEED | FREQUENCY | DISTANCE | TERRAIN | HT | EFF | PLUME | HT | SIGMA-Y | SIGMA-Z | MEANDER-SY | ** CHI/Q VALUES (SEC/CUBIC METER) | | |
|----------------|-----------|-----------|----------|---------|--------|--------|--------|--------|---------|-----------|------------|-----------------------------------|-----------|------|
| CLASS | METER/SEC | PERCENT | METERS | METERS | METERS | METERS | METERS | METERS | METERS | METERS | METERS | MEANDER | BLDG WAKE | USED |
| AT 10.0 METERS | | | | | | | | | | | | CA=1292 SQ.METERS | | |
| A | 1.6 | 8.88 | 823. | 0. | 0. | 0. | 157.1 | 310.1 | 157.1 | 4.187E-06 | 4.152E-06 | 4.152E-06 | | |
| A | 3.3 | 5.37 | 823. | 0. | 0. | 0. | 157.1 | 310.1 | 157.1 | 1.954E-06 | 1.937E-06 | 1.937E-06 | | |
| A | 5.6 | 0.07 | 823. | 0. | 0. | 0. | 157.1 | 310.1 | 157.1 | 1.172E-06 | 1.162E-06 | 1.162E-06 | | |
| A | 24.5 | 0.07 | 823. | 0. | 0. | 0. | 157.1 | 310.1 | 157.1 | 2.664E-07 | 2.642E-07 | 2.642E-07 | | |
| | | | | | | | | | | | | | | |
| B | 1.6 | 3.71 | 823. | 0. | 0. | 0. | 118.1 | 88.8 | 118.1 | 1.945E-05 | 1.871E-05 | 1.871E-05 | | |
| B | 3.3 | 2.65 | 823. | 0. | 0. | 0. | 118.1 | 88.8 | 118.1 | 9.075E-06 | 8.732E-06 | 8.732E-06 | | |
| B | 5.6 | 0.13 | 823. | 0. | 0. | 0. | 118.1 | 88.8 | 118.1 | 5.445E-06 | 5.239E-06 | 5.239E-06 | | |
| | | | | | | | | | | | | | | |
| C | 1.6 | 3.05 | 823. | 0. | 0. | 0. | 89.7 | 51.2 | 89.7 | 4.443E-05 | 4.078E-05 | 4.078E-05 | | |
| C | 3.3 | 0.66 | 823. | 0. | 0. | 0. | 89.7 | 51.2 | 89.7 | 2.073E-05 | 1.903E-05 | 1.903E-05 | | |
| C | 5.6 | 0.07 | 823. | 0. | 0. | 0. | 89.7 | 51.2 | 89.7 | 1.244E-05 | 1.142E-05 | 1.142E-05 | | |
| | | | | | | | | | | | | | | |
| D | 0.2 | 0.05 | 823. | 0. | 0. | 0. | 63.2 | 27.1 | 124.7 | 4.217E-04 | 6.716E-04 | 4.217E-04 | | |
| D | 1.6 | 22.39 | 823. | 0. | 0. | 0. | 63.2 | 27.1 | 124.7 | 6.024E-05 | 9.594E-05 | 6.024E-05 | | |
| D | 3.3 | 10.60 | 823. | 0. | 0. | 0. | 63.2 | 27.1 | 90.6 | 3.869E-05 | 4.477E-05 | 3.869E-05 | | |
| D | 5.6 | 0.53 | 823. | 0. | 0. | 0. | 63.2 | 27.1 | 66.1 | 3.183E-05 | 2.686E-05 | 2.686E-05 | | |
| | | | | | | | | | | | | | | |
| E | 0.2 | 0.20 | 823. | 0. | 0. | 0. | 44.9 | 18.7 | 132.5 | 5.778E-04 | 1.144E-03 | 5.778E-04 | | |
| E | 1.6 | 27.56 | 823. | 0. | 0. | 0. | 44.9 | 18.7 | 132.5 | 8.255E-05 | 1.634E-04 | 8.255E-05 | | |
| E | 3.3 | 6.09 | 823. | 0. | 0. | 0. | 44.9 | 18.7 | 79.9 | 6.389E-05 | 7.627E-05 | 6.389E-05 | | |
| E | 5.6 | 0.26 | 823. | 0. | 0. | 0. | 44.9 | 18.7 | 48.4 | 6.329E-05 | 4.576E-05 | 4.576E-05 | | |
| | | | | | | | | | | | | | | |
| F | 0.2 | 0.04 | 823. | 0. | 0. | 0. | 31.0 | 12.0 | 121.7 | 9.797E-04 | 1.827E-03 | 9.797E-04 | | |
| F | 1.6 | 5.37 | 823. | 0. | 0. | 0. | 31.0 | 12.0 | 121.7 | 1.400E-04 | 2.609E-04 | 1.400E-04 | | |
| | | | | | | | | | | | | | | |
| G | 0.2 | 0.02 | 823. | 0. | 0. | 0. | 21.4 | 7.7 | 125.7 | 1.477E-03 | 2.891E-03 | 1.477E-03 | | |
| G | 1.6 | 1.99 | 823. | 0. | 0. | 0. | 21.4 | 7.7 | 125.7 | 2.109E-04 | 4.129E-04 | 2.109E-04 | | |
| G | 3.3 | 0.26 | 823. | 0. | 0. | 0. | 21.4 | 7.7 | 54.9 | 2.255E-04 | 1.927E-04 | 1.927E-04 | | |

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1301 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 10.1 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.1-45.7 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

SSW SECTOR BOUNDARY DISTANCE = 823.0 METERS

LATERAL PLUME MEANDER/BUILDING WAKE CREDIT ALLOWED

AS A FUNCTION OF DOWNWIND DISTANCE.

MEANDER CREDIT IS FOR WINDSPEEDS LESS THAN 6 MPS.

BUILDING WAKE CREDIT ALLOWED: C= 0.5 A= 2584. D= 54.3

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

| | | | | | | | | | |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 1.477E-03 | 9.797E-04 | 5.778E-04 | 4.217E-04 | 2.109E-04 | 1.927E-04 | 1.400E-04 | 8.255E-05 | 6.389E-05 | 6.024E-05 |
| 0.016 | 0.056 | 0.252 | 0.304 | 2.291 | 2.556 | 7.922 | 35.479 | 41.574 | 63.964 |
| 0.00056 | 0.00197 | 0.00891 | 0.01073 | 0.08087 | 0.09022 | 0.27959 | 1.25214 | 1.46722 | 2.25742 |
| 4.576E-05 | 4.078E-05 | 3.869E-05 | 2.686E-05 | 1.903E-05 | 1.871E-05 | 1.142E-05 | 8.732E-06 | 5.239E-06 | 4.152E-06 |
| 64.229 | 67.276 | 77.875 | 78.405 | 79.067 | 82.777 | 82.843 | 85.493 | 85.625 | 94.502 |
| 2.26677 | 2.37432 | 2.74837 | 2.76708 | 2.79046 | 2.92138 | 2.92371 | 3.01723 | 3.02191 | 3.33518 |
| 1.937E-06 | 1.162E-06 | 2.642E-07 | | | | | | | |
| 99.868 | 99.934 | 100.000 | | | | | | | |
| 3.52455 | 3.52689 | 3.52922 | | | | | | | |

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

| CHI/Q | WITH RESPECT TO | WHEN THE WIND BLOWS |
|-----------------|-----------------|-----------------------|
| SEC/CUBIC METER | THE TOTAL TIME | INTO THIS SECTOR ONLY |

| | | | |
|------------------|------------------------------------|------------|-------|
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(2)= | 2.255 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(3)= | 2.746 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(4)= | 3.332 |

| K | I | XQSAVE(K,I) | XQINT(K,I) | XQSLOP(K,I) |
|---|---|-------------|------------|-------------|
| 2 | 1 | -6.51806 | -12.39852 | -1.33817 |
| 2 | 2 | -9.71722 | -20.25639 | -5.25984 |
| 2 | 3 | -10.15982 | -60.28563 | -26.11320 |
| 2 | 4 | -12.39204 | NUMXQ(K)= | 4 |

| | | |
|-----------|-------|--------|
| 3.838E-04 | 0.035 | 1.000 |
| 2.521E-04 | 0.106 | 3.000 |
| 2.047E-04 | 0.176 | 5.000 |
| 1.518E-04 | 0.353 | 10.000 |
| 1.262E-04 | 0.529 | 15.000 |
| 1.101E-04 | 0.706 | 20.000 |
| 9.879E-05 | 0.882 | 25.000 |
| 9.018E-05 | 1.059 | 30.000 |
| 8.335E-05 | 1.235 | 35.000 |
| 7.775E-05 | 1.412 | 40.000 |
| 7.305E-05 | 1.588 | 45.000 |
| 6.902E-05 | 1.765 | 50.000 |
| 6.552E-05 | 1.941 | 55.000 |
| 6.244E-05 | 2.118 | 60.000 |
| 5.813E-05 | 2.294 | 65.000 |
| 4.926E-05 | 2.470 | 70.000 |
| 4.216E-05 | 2.647 | 75.000 |
| 2.849E-05 | 2.823 | 80.000 |
| 1.422E-05 | 3.000 | 85.000 |
| 7.341E-06 | 3.176 | 90.000 |
| 1.296E-04 | 0.5 | 14.17 |

ANNUAL AVERAGE = 2.40E-06

K= 2 FIVEXQ(K)= 1.296E-04 FIVEPR(K)=14.167

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1303 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Ground Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 10.1 meters

DELTA-T HEIGHTS: 10.1-45.7 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE SW SECTOR.

| STABILITY | WINDSPEED | FREQUENCY | DISTANCE | TERRAIN HT | EFF PLUME HT | SIGMA-Y | SIGMA-Z | MEANDER-SY | ** CHI/Q VALUES (SEC/CUBIC METER) | | |
|----------------|-----------|-----------|----------|------------|--------------|-------------------|---------|------------|-----------------------------------|-----------|-----------|
| CLASS | METER/SEC | PERCENT | METERS | METERS | METERS | METERS | METERS | METERS | MEANDER | BLDG WAKE | USED |
| AT 10.0 METERS | | | | | | CA=1292.SQ.METERS | | | | | |
| A | 1.6 | 10.17 | 823. | 0. | 0. | 157.1 | 310.1 | 157.1 | 4.187E-06 | 4.152E-06 | 4.152E-06 |
| A | 3.3 | 2.24 | 823. | 0. | 0. | 157.1 | 310.1 | 157.1 | 1.954E-06 | 1.937E-06 | 1.937E-06 |
| A | 5.6 | 0.07 | 823. | 0. | 0. | 157.1 | 310.1 | 157.1 | 1.172E-06 | 1.162E-06 | 1.162E-06 |
| A | 24.5 | 0.07 | 823. | 0. | 0. | 157.1 | 310.1 | 157.1 | 2.664E-07 | 2.642E-07 | 2.642E-07 |
| B | 1.6 | 4.62 | 823. | 0. | 0. | 118.1 | 88.8 | 118.1 | 1.945E-05 | 1.871E-05 | 1.871E-05 |
| B | 3.3 | 0.79 | 823. | 0. | 0. | 118.1 | 88.8 | 118.1 | 9.075E-06 | 8.732E-06 | 8.732E-06 |
| C | 1.6 | 1.88 | 823. | 0. | 0. | 89.7 | 51.2 | 89.7 | 4.443E-05 | 4.078E-05 | 4.078E-05 |
| C | 3.3 | 0.22 | 823. | 0. | 0. | 89.7 | 51.2 | 89.7 | 2.073E-05 | 1.903E-05 | 1.903E-05 |
| D | 0.2 | 0.07 | 823. | 0. | 0. | 63.2 | 27.1 | 124.7 | 4.217E-04 | 6.716E-04 | 4.217E-04 |
| D | 1.6 | 31.54 | 823. | 0. | 0. | 63.2 | 27.1 | 124.7 | 6.024E-05 | 9.594E-05 | 6.024E-05 |
| D | 3.3 | 4.76 | 823. | 0. | 0. | 63.2 | 27.1 | 90.6 | 3.869E-05 | 4.477E-05 | 3.869E-05 |
| E | 0.2 | 0.21 | 823. | 0. | 0. | 44.9 | 18.7 | 132.5 | 5.778E-04 | 1.144E-03 | 5.778E-04 |
| E | 1.6 | 29.95 | 823. | 0. | 0. | 44.9 | 18.7 | 132.5 | 8.255E-05 | 1.634E-04 | 8.255E-05 |
| E | 3.3 | 5.48 | 823. | 0. | 0. | 44.9 | 18.7 | 79.9 | 6.389E-05 | 7.627E-05 | 6.389E-05 |
| E | 5.6 | 0.07 | 823. | 0. | 0. | 44.9 | 18.7 | 48.4 | 6.329E-05 | 4.576E-05 | 4.576E-05 |
| F | 0.2 | 0.04 | 823. | 0. | 0. | 31.0 | 12.0 | 121.7 | 9.797E-04 | 1.827E-03 | 9.797E-04 |
| F | 1.6 | 5.34 | 823. | 0. | 0. | 31.0 | 12.0 | 121.7 | 1.400E-04 | 2.609E-04 | 1.400E-04 |
| F | 3.3 | 0.36 | 823. | 0. | 0. | 31.0 | 12.0 | 64.2 | 1.238E-04 | 1.218E-04 | 1.218E-04 |
| G | 0.2 | 0.02 | 823. | 0. | 0. | 21.4 | 7.7 | 125.7 | 1.477E-03 | 2.891E-03 | 1.477E-03 |
| G | 1.6 | 2.09 | 823. | 0. | 0. | 21.4 | 7.7 | 125.7 | 2.109E-04 | 4.129E-04 | 2.109E-04 |

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1304 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 10.1 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.1-45.7 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

SW SECTOR BOUNDARY DISTANCE = 823.0 METERS

LATERAL PLUME MEANDER/BUILDING WAKE CREDIT ALLOWED

AS A FUNCTION OF DOWNWIND DISTANCE.

MEANDER CREDIT IS FOR WINDSPEEDS LESS THAN 6 MPS.

BUILDING WAKE CREDIT ALLOWED: C= 0.5 A= 2584. D= 54.3

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

| | | | | | | | | | |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 1.477E-03 | 9.797E-04 | 5.778E-04 | 4.217E-04 | 2.109E-04 | 1.400E-04 | 1.218E-04 | 8.255E-05 | 6.389E-05 | 6.024E-05 |
| 0.017 | 0.056 | 0.270 | 0.343 | 2.436 | 7.776 | 8.136 | 38.084 | 43.568 | 75.104 |
| 0.00054 | 0.00183 | 0.00875 | 0.01111 | 0.07891 | 0.25191 | 0.26360 | 1.23381 | 1.41149 | 2.43314 |
| 4.576E-05 | 4.078E-05 | 3.869E-05 | 1.903E-05 | 1.871E-05 | 8.732E-06 | 4.152E-06 | 1.937E-06 | 1.162E-06 | 2.642E-07 |
| 75.176 | 77.052 | 81.815 | 82.031 | 86.650 | 87.444 | 97.619 | 99.856 | 99.928 | 100.000 |
| 2.43548 | 2.49626 | 2.65056 | 2.65757 | 2.80720 | 2.83291 | 3.16255 | 3.23503 | 3.23737 | 3.23970 |

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE

ORDERED X/Q-FREQUENCY VALUES, AND AS

PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 2.431
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 2.648

| K | I | XQSAVE(K,I) | XQINT(K,I) | XQSLOP(K,I) |
|---|---|-------------|-------------|-------------|
| 3 | 1 | -6.51806 | -12.31359 | -1.31664 |
| 3 | 2 | -9.71722 | -33.49255 | -12.05666 |
| 3 | 3 | -10.15982 | NUMXQ(K)= 3 | |
| | | 4.006E-04 | 0.032 | 1.000 |
| | | 2.656E-04 | 0.097 | 3.000 |
| | | 2.167E-04 | 0.162 | 5.000 |
| | | 1.619E-04 | 0.324 | 10.000 |
| | | 1.352E-04 | 0.486 | 15.000 |
| | | 1.184E-04 | 0.648 | 20.000 |

Calculation No. PM-1055 Revision 0**Attachment J****Page 1305 of 1411**

| | | |
|-----------|-------|--------|
| 1.065E-04 | 0.810 | 25.000 |
| 9.747E-05 | 0.972 | 30.000 |
| 9.028E-05 | 1.134 | 35.000 |
| 8.437E-05 | 1.296 | 40.000 |
| 7.940E-05 | 1.458 | 45.000 |
| 7.515E-05 | 1.620 | 50.000 |
| 7.144E-05 | 1.782 | 55.000 |
| 6.817E-05 | 1.944 | 60.000 |
| 6.526E-05 | 2.106 | 65.000 |
| 6.265E-05 | 2.268 | 70.000 |
| 6.028E-05 | 2.430 | 75.000 |
| 4.348E-05 | 2.592 | 80.000 |
| 1.335E-04 | 0.5 | 15.43 |

ANNUAL AVERAGE = 2.44E-06

K= 3 FIVEXQ(K)= 1.335E-04 FIVEPR(K)=15.434

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 01/28/03

Page 1306 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Ground Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 10.1 meters

DELTA-T HEIGHTS: 10.1-45.7 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE WSW SECTOR.

| STABILITY | WINDSPEED | FREQUENCY | DISTANCE | TERRAIN HT | EFF PLUME HT | SIGMA-Y | SIGMA-Z | MEANDER-SY | ** CHI/Q VALUES (SEC/CUBIC METER) | | |
|----------------|-----------|-----------|----------|------------|--------------|-------------------|---------|------------|-----------------------------------|-----------|-----------|
| CLASS | METER/SEC | PERCENT | METERS | METERS | METERS | METERS | METERS | METERS | MEANDER | BLDG WAKE | USED |
| AT 10.0 METERS | | | | | | CA=1292.SQ.METERS | | | | | |
| A | 1.6 | 11.29 | 823. | 0. | 0. | 157.1 | 310.1 | 157.1 | 4.187E-06 | 4.152E-06 | 4.152E-06 |
| A | 3.3 | 2.21 | 823. | 0. | 0. | 157.1 | 310.1 | 157.1 | 1.954E-06 | 1.937E-06 | 1.937E-06 |
| B | 1.6 | 5.29 | 823. | 0. | 0. | 118.1 | 88.8 | 118.1 | 1.945E-05 | 1.871E-05 | 1.871E-05 |
| B | 3.3 | 1.18 | 823. | 0. | 0. | 118.1 | 88.8 | 118.1 | 9.075E-06 | 8.732E-06 | 8.732E-06 |
| C | 1.6 | 3.79 | 823. | 0. | 0. | 89.7 | 51.2 | 89.7 | 4.443E-05 | 4.078E-05 | 4.078E-05 |
| C | 3.3 | 0.63 | 823. | 0. | 0. | 89.7 | 51.2 | 89.7 | 2.073E-05 | 1.903E-05 | 1.903E-05 |
| D | 0.2 | 0.06 | 823. | 0. | 0. | 63.2 | 27.1 | 124.7 | 4.217E-04 | 6.716E-04 | 4.217E-04 |
| D | 1.6 | 25.11 | 823. | 0. | 0. | 63.2 | 27.1 | 124.7 | 6.024E-05 | 9.594E-05 | 6.024E-05 |
| D | 3.3 | 2.76 | 823. | 0. | 0. | 63.2 | 27.1 | 90.6 | 3.869E-05 | 4.477E-05 | 3.869E-05 |
| E | 0.2 | 0.22 | 823. | 0. | 0. | 44.9 | 18.7 | 132.5 | 5.778E-04 | 1.144E-03 | 5.778E-04 |
| E | 1.6 | 30.24 | 823. | 0. | 0. | 44.9 | 18.7 | 132.5 | 8.255E-05 | 1.634E-04 | 8.255E-05 |
| E | 3.3 | 5.84 | 823. | 0. | 0. | 44.9 | 18.7 | 79.9 | 6.389E-05 | 7.627E-05 | 6.389E-05 |
| F | 0.2 | 0.05 | 823. | 0. | 0. | 31.0 | 12.0 | 121.7 | 9.797E-04 | 1.827E-03 | 9.797E-04 |
| F | 1.6 | 7.26 | 823. | 0. | 0. | 31.0 | 12.0 | 121.7 | 1.400E-04 | 2.609E-04 | 1.400E-04 |
| F | 3.3 | 0.16 | 823. | 0. | 0. | 31.0 | 12.0 | 64.2 | 1.238E-04 | 1.218E-04 | 1.218E-04 |
| G | 0.2 | 0.03 | 823. | 0. | 0. | 21.4 | 7.7 | 125.7 | 1.477E-03 | 2.891E-03 | 1.477E-03 |
| G | 1.6 | 3.87 | 823. | 0. | 0. | 21.4 | 7.7 | 125.7 | 2.109E-04 | 4.129E-04 | 2.109E-04 |

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1307 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 10.1 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.1-45.7 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

WSW SECTOR BOUNDARY DISTANCE = 823.0 METERS

LATERAL PLUME MEANDER/BUILDING WAKE CREDIT ALLOWED

AS A FUNCTION OF DOWNWIND DISTANCE.

MEANDER CREDIT IS FOR WINDSPEEDS LESS THAN 6 MPS.

BUILDING WAKE CREDIT ALLOWED: C= 0.5 A= 2584. D= 54.3

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

| | | | | | | | | | |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 1.477E-03 | 9.797E-04 | 5.778E-04 | 4.217E-04 | 2.109E-04 | 1.400E-04 | 1.218E-04 | 8.255E-05 | 6.389E-05 | 6.024E-05 |
| 0.031 | 0.085 | 0.301 | 0.359 | 4.227 | 11.491 | 11.649 | 41.889 | 47.732 | 72.839 |
| 0.00091 | 0.00251 | 0.00890 | 0.01062 | 0.12517 | 0.34026 | 0.34493 | 1.24033 | 1.41334 | 2.15678 |
| 4.078E-05 | 3.869E-05 | 1.903E-05 | 1.871E-05 | 8.732E-06 | 4.152E-06 | 1.937E-06 | | | |
| 76.629 | 79.393 | 80.024 | 85.314 | 86.499 | 97.789 | 100.000 | | | |
| 2.26900 | 2.35082 | 2.36953 | 2.52616 | 2.56123 | 2.89555 | 2.96101 | | | |

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE

ORDERED X/Q-FREQUENCY VALUES, AND AS

PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

| CHI/Q | WITH RESPECT TO | WHEN THE WIND BLOWS |
|-----------------|-----------------|-----------------------|
| SEC/CUBIC METER | THE TOTAL TIME | INTO THIS SECTOR ONLY |

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 1.239

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 2.155

K I XQSAVE(K,I) XQINT(K,I) XQSLOP(K,I)

4 1 -6.51806 -12.57305 -1.41253

4 2 -9.40215 -12.58798 -1.41917

4 3 -9.71722 NUMXQ(K)= 3

4.436E-04 0.030 1.000

2.864E-04 0.089 3.000

2.306E-04 0.148 5.000

1.691E-04 0.296 10.000

1.396E-04 0.444 15.000

1.213E-04 0.592 20.000

Calculation No. PM-1055 Revision 0**Attachment J****Page 1308 of 1411**

| | | |
|-----------|-------|--------|
| 1.084E-04 | 0.740 | 25.000 |
| 9.863E-05 | 0.888 | 30.000 |
| 9.093E-05 | 1.036 | 35.000 |
| 8.464E-05 | 1.184 | 40.000 |
| 7.936E-05 | 1.332 | 45.000 |
| 7.483E-05 | 1.481 | 50.000 |
| 7.091E-05 | 1.629 | 55.000 |
| 6.747E-05 | 1.777 | 60.000 |
| 6.441E-05 | 1.925 | 65.000 |
| 6.167E-05 | 2.073 | 70.000 |
| 1.318E-04 | 0.5 | 16.89 |

ANNUAL AVERAGE = 2.31E-06

K= 4 FIVEXQ(K)= 1.318E-04 FIVEPR(K)=16.886

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 01/28/03

Page 1309 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Ground Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 10.1 meters

DELTA-T HEIGHTS: 10.1-45.7 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE W SECTOR.

| STABILITY | WINDSPEED | FREQUENCY | DISTANCE | TERRAIN | HT | EFF | PLUME | HT | SIGMA-Y | SIGMA-Z | MEANDER-SY | ** CHI/Q VALUES (SEC/CUBIC METER) | | |
|----------------|-----------|-----------|----------|---------|--------|--------|--------|--------|-----------|-----------|------------|-----------------------------------|-----------|------|
| CLASS | METER/SEC | PERCENT | METERS | METERS | METERS | METERS | METERS | METERS | METERS | METERS | METERS | MEANDER | BLDG WAKE | USED |
| AT 10.0 METERS | | | | | | | | | | | | CA=1292.SQ.METERS | | |
| A | 1.6 | 6.63 | 823. | 0. | 0. | 157.1 | 310.1 | 157.1 | 4.187E-06 | 4.152E-06 | 4.152E-06 | | | |
| A | 3.3 | 2.86 | 823. | 0. | 0. | 157.1 | 310.1 | 157.1 | 1.954E-06 | 1.937E-06 | 1.937E-06 | | | |
| A | 24.5 | 0.13 | 823. | 0. | 0. | 157.1 | 310.1 | 157.1 | 2.664E-07 | 2.642E-07 | 2.642E-07 | | | |
| B | 1.6 | 3.97 | 823. | 0. | 0. | 118.1 | 88.8 | 118.1 | 1.945E-05 | 1.871E-05 | 1.871E-05 | | | |
| B | 3.3 | 0.78 | 823. | 0. | 0. | 118.1 | 88.8 | 118.1 | 9.075E-06 | 8.732E-06 | 8.732E-06 | | | |
| B | 5.6 | 0.07 | 823. | 0. | 0. | 118.1 | 88.8 | 118.1 | 5.445E-06 | 5.239E-06 | 5.239E-06 | | | |
| C | 1.6 | 2.28 | 823. | 0. | 0. | 89.7 | 51.2 | 89.7 | 4.443E-05 | 4.078E-05 | 4.078E-05 | | | |
| C | 3.3 | 0.59 | 823. | 0. | 0. | 89.7 | 51.2 | 89.7 | 2.073E-05 | 1.903E-05 | 1.903E-05 | | | |
| C | 5.6 | 0.07 | 823. | 0. | 0. | 89.7 | 51.2 | 89.7 | 1.244E-05 | 1.142E-05 | 1.142E-05 | | | |
| D | 0.2 | 0.04 | 823. | 0. | 0. | 63.2 | 27.1 | 124.7 | 4.217E-04 | 6.716E-04 | 4.217E-04 | | | |
| D | 1.6 | 19.25 | 823. | 0. | 0. | 63.2 | 27.1 | 124.7 | 6.024E-05 | 9.594E-05 | 6.024E-05 | | | |
| D | 3.3 | 4.23 | 823. | 0. | 0. | 63.2 | 27.1 | 90.6 | 3.869E-05 | 4.477E-05 | 3.869E-05 | | | |
| D | 5.6 | 0.13 | 823. | 0. | 0. | 63.2 | 27.1 | 66.1 | 3.183E-05 | 2.686E-05 | 2.686E-05 | | | |
| E | 0.2 | 0.24 | 823. | 0. | 0. | 44.9 | 18.7 | 132.5 | 5.778E-04 | 1.144E-03 | 5.778E-04 | | | |
| E | 1.6 | 33.50 | 823. | 0. | 0. | 44.9 | 18.7 | 132.5 | 8.255E-05 | 1.634E-04 | 8.255E-05 | | | |
| E | 3.3 | 6.89 | 823. | 0. | 0. | 44.9 | 18.7 | 79.9 | 6.389E-05 | 7.627E-05 | 6.389E-05 | | | |
| E | 5.6 | 0.39 | 823. | 0. | 0. | 44.9 | 18.7 | 48.4 | 6.329E-05 | 4.576E-05 | 4.576E-05 | | | |
| F | 0.2 | 0.09 | 823. | 0. | 0. | 31.0 | 12.0 | 121.7 | 9.797E-04 | 1.827E-03 | 9.797E-04 | | | |
| F | 1.6 | 11.71 | 823. | 0. | 0. | 31.0 | 12.0 | 121.7 | 1.400E-04 | 2.609E-04 | 1.400E-04 | | | |
| F | 3.3 | 0.20 | 823. | 0. | 0. | 31.0 | 12.0 | 64.2 | 1.238E-04 | 1.218E-04 | 1.218E-04 | | | |
| G | 0.2 | 0.05 | 823. | 0. | 0. | 21.4 | 7.7 | 125.7 | 1.477E-03 | 2.891E-03 | 1.477E-03 | | | |
| G | 1.6 | 5.72 | 823. | 0. | 0. | 21.4 | 7.7 | 125.7 | 2.109E-04 | 4.129E-04 | 2.109E-04 | | | |
| G | 3.3 | 0.20 | 823. | 0. | 0. | 21.4 | 7.7 | 54.9 | 2.255E-04 | 1.927E-04 | 1.927E-04 | | | |

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1310 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 10.1 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.1-45.7 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

W SECTOR BOUNDARY DISTANCE = 823.0 METERS

LATERAL PLUME MEANDER/BUILDING WAKE CREDIT ALLOWED

AS A FUNCTION OF DOWNWIND DISTANCE.

MEANDER CREDIT IS FOR WINDSPEEDS LESS THAN 6 MPS.

BUILDING WAKE CREDIT ALLOWED: C= 0.5 A= 2584. D= 54.3

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

| | | | | | | | | | |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 1.477E-03 | 9.797E-04 | 5.778E-04 | 4.217E-04 | 2.109E-04 | 1.927E-04 | 1.400E-04 | 1.218E-04 | 8.255E-05 | 6.389E-05 |
| 0.045 | 0.133 | 0.372 | 0.416 | 6.140 | 6.335 | 18.043 | 18.238 | 51.737 | 58.631 |
| 0.00163 | 0.00477 | 0.01336 | 0.01496 | 0.22069 | 0.22770 | 0.64852 | 0.65553 | 1.85954 | 2.10735 |
| 6.024E-05 | 4.576E-05 | 4.078E-05 | 3.869E-05 | 2.686E-05 | 1.903E-05 | 1.871E-05 | 1.142E-05 | 8.732E-06 | 5.239E-06 |
| 77.885 | 78.275 | 80.552 | 84.779 | 84.910 | 85.495 | 89.463 | 89.528 | 90.308 | 90.373 |
| 2.79936 | 2.81339 | 2.89521 | 3.04717 | 3.05185 | 3.07289 | 3.21550 | 3.21784 | 3.24589 | 3.24823 |
| 4.152E-06 | 1.937E-06 | 2.642E-07 | | | | | | | |
| 97.008 | 99.870 | 100.000 | | | | | | | |
| 3.48669 | 3.58956 | 3.59423 | | | | | | | |

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

| CHI/Q | WITH RESPECT TO | WHEN THE WIND BLOWS |
|-----------------|-----------------|-----------------------|
| SEC/CUBIC METER | THE TOTAL TIME | INTO THIS SECTOR ONLY |

| | | | |
|------------------|------------------------------------|------------|-------|
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(2)= | 1.858 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(3)= | 2.797 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(4)= | 3.044 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(5)= | 3.213 |

| K | I | XQSAVE(K,I) | XQINT(K,I) | XQSLOP(K,I) |
|---|---|-------------|------------|-------------|
| 5 | 1 | -6.51806 | -12.30507 | -1.39289 |
| 5 | 2 | -9.40215 | -13.20774 | -1.82600 |
| 5 | 3 | -9.71722 | -32.43827 | -11.88613 |

Calculation No. PM-1055 Revision 0

Attachment J

Page 1311 of 1411

5 4 -10.15982 -67.17355 -30.41830

5 5 -10.88636 NUMXQ(K) = 5

| | | |
|-----------|-------|--------|
| 5.036E-04 | 0.036 | 1.000 |
| 3.250E-04 | 0.108 | 3.000 |
| 2.615E-04 | 0.180 | 5.000 |
| 1.915E-04 | 0.359 | 10.000 |
| 1.580E-04 | 0.539 | 15.000 |
| 1.371E-04 | 0.719 | 20.000 |
| 1.224E-04 | 0.899 | 25.000 |
| 1.113E-04 | 1.078 | 30.000 |
| 1.025E-04 | 1.258 | 35.000 |
| 9.530E-05 | 1.438 | 40.000 |
| 8.929E-05 | 1.617 | 45.000 |
| 8.416E-05 | 1.797 | 50.000 |
| 7.885E-05 | 1.977 | 55.000 |
| 7.381E-05 | 2.157 | 60.000 |
| 6.941E-05 | 2.336 | 65.000 |
| 6.553E-05 | 2.516 | 70.000 |
| 6.207E-05 | 2.696 | 75.000 |
| 5.241E-05 | 2.875 | 80.000 |
| 3.737E-05 | 3.055 | 85.000 |

| | | |
|-----------|-----|-------|
| 1.638E-04 | 0.5 | 13.91 |
|-----------|-----|-------|

ANNUAL AVERAGE = 3.11E-06

K= 5 FIVEXQ(K) = 1.638E-04 FIVEPR(K) = 13.911

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1312 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 10.1 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.1-45.7 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE WNW SECTOR.

| STABILITY | WINDSPEED | FREQUENCY | DISTANCE | TERRAIN | HT | EFF | PLUME | HT | SIGMA-Y | SIGMA-Z | MEANDER-SY | ** CHI/Q VALUES (SEC/CUBIC METER) | | |
|----------------|-----------|-----------|----------|---------|--------|--------|--------|--------|-----------|-----------|------------|-----------------------------------|-----------|------|
| CLASS | METER/SEC | PERCENT | METERS | METERS | METERS | METERS | METERS | METERS | METERS | METERS | METERS | MEANDER | BLDG WAKE | USED |
| AT 10.0 METERS | | | | | | | | | | | | CA=1292.SQ.METERS | | |
| A | 1.6 | 4.94 | 823. | 0. | 0. | 157.1 | 310.1 | 157.1 | 4.187E-06 | 4.152E-06 | 4.152E-06 | | | |
| A | 3.3 | 6.06 | 823. | 0. | 0. | 157.1 | 310.1 | 157.1 | 1.954E-06 | 1.937E-06 | 1.937E-06 | | | |
| A | 5.6 | 0.50 | 823. | 0. | 0. | 157.1 | 310.1 | 157.1 | 1.172E-06 | 1.162E-06 | 1.162E-06 | | | |
| B | 1.6 | 2.75 | 823. | 0. | 0. | 118.1 | 88.8 | 118.1 | 1.945E-05 | 1.871E-05 | 1.871E-05 | | | |
| B | 3.3 | 1.94 | 823. | 0. | 0. | 118.1 | 88.8 | 118.1 | 9.075E-06 | 8.732E-06 | 8.732E-06 | | | |
| B | 5.6 | 0.38 | 823. | 0. | 0. | 118.1 | 88.8 | 118.1 | 5.445E-06 | 5.239E-06 | 5.239E-06 | | | |
| C | 1.6 | 1.69 | 823. | 0. | 0. | 89.7 | 51.2 | 89.7 | 4.443E-05 | 4.078E-05 | 4.078E-05 | | | |
| C | 3.3 | 0.63 | 823. | 0. | 0. | 89.7 | 51.2 | 89.7 | 2.073E-05 | 1.903E-05 | 1.903E-05 | | | |
| C | 5.6 | 0.06 | 823. | 0. | 0. | 89.7 | 51.2 | 89.7 | 1.244E-05 | 1.142E-05 | 1.142E-05 | | | |
| C | 8.2 | 0.06 | 823. | 0. | 0. | 89.7 | 51.2 | 89.7 | 8.406E-06 | 7.714E-06 | 7.714E-06 | | | |
| D | 0.2 | 0.03 | 823. | 0. | 0. | 63.2 | 27.1 | 124.7 | 4.217E-04 | 6.716E-04 | 4.217E-04 | | | |
| D | 1.6 | 10.94 | 823. | 0. | 0. | 63.2 | 27.1 | 124.7 | 6.024E-05 | 9.594E-05 | 6.024E-05 | | | |
| D | 3.3 | 9.06 | 823. | 0. | 0. | 63.2 | 27.1 | 90.6 | 3.869E-05 | 4.477E-05 | 3.869E-05 | | | |
| D | 5.6 | 0.50 | 823. | 0. | 0. | 63.2 | 27.1 | 66.1 | 3.183E-05 | 2.686E-05 | 2.686E-05 | | | |
| E | 0.2 | 0.21 | 823. | 0. | 0. | 44.9 | 18.7 | 132.5 | 5.778E-04 | 1.144E-03 | 5.778E-04 | | | |
| E | 1.6 | 29.38 | 823. | 0. | 0. | 44.9 | 18.7 | 132.5 | 8.255E-05 | 1.634E-04 | 8.255E-05 | | | |
| E | 3.3 | 11.06 | 823. | 0. | 0. | 44.9 | 18.7 | 79.9 | 6.389E-05 | 7.627E-05 | 6.389E-05 | | | |
| E | 5.6 | 1.06 | 823. | 0. | 0. | 44.9 | 18.7 | 48.4 | 6.329E-05 | 4.576E-05 | 4.576E-05 | | | |
| F | 0.2 | 0.10 | 823. | 0. | 0. | 31.0 | 12.0 | 121.7 | 9.797E-04 | 1.827E-03 | 9.797E-04 | | | |
| F | 1.6 | 14.00 | 823. | 0. | 0. | 31.0 | 12.0 | 121.7 | 1.400E-04 | 2.609E-04 | 1.400E-04 | | | |
| F | 3.3 | 0.88 | 823. | 0. | 0. | 31.0 | 12.0 | 64.2 | 1.238E-04 | 1.218E-04 | 1.218E-04 | | | |
| G | 0.2 | 0.03 | 823. | 0. | 0. | 21.4 | 7.7 | 125.7 | 1.477E-03 | 2.891E-03 | 1.477E-03 | | | |
| G | 1.6 | 3.44 | 823. | 0. | 0. | 21.4 | 7.7 | 125.7 | 2.109E-04 | 4.129E-04 | 2.109E-04 | | | |
| G | 3.3 | 0.31 | 823. | 0. | 0. | 21.4 | 7.7 | 54.9 | 2.255E-04 | 1.927E-04 | 1.927E-04 | | | |

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1313 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 10.1 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.1-45.7 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

WNW SECTOR BOUNDARY DISTANCE = 823.0 METERS

LATERAL PLUME MEANDER/BUILDING WAKE CREDIT ALLOWED

AS A FUNCTION OF DOWNWIND DISTANCE.

MEANDER CREDIT IS FOR WINDSPEEDS LESS THAN 6 MPS.

BUILDING WAKE CREDIT ALLOWED: C= 0.5 A= 2584. D= 54.3

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

| | | | | | | | | | |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 1.477E-03 | 9.797E-04 | 5.778E-04 | 4.217E-04 | 2.109E-04 | 1.927E-04 | 1.400E-04 | 1.218E-04 | 8.255E-05 | 6.389E-05 |
| 0.027 | 0.132 | 0.341 | 0.367 | 3.804 | 4.117 | 18.118 | 18.993 | 48.371 | 59.434 |
| 0.00102 | 0.00493 | 0.01277 | 0.01371 | 0.14230 | 0.15398 | 0.67767 | 0.71040 | 1.80920 | 2.22300 |
| 6.024E-05 | 4.576E-05 | 4.078E-05 | 3.869E-05 | 2.686E-05 | 1.903E-05 | 1.871E-05 | 1.142E-05 | 8.732E-06 | 7.714E-06 |
| 70.373 | 71.435 | 73.123 | 82.186 | 82.686 | 83.311 | 86.061 | 86.124 | 88.062 | 88.124 |
| 2.63213 | 2.67187 | 2.73499 | 3.07398 | 3.09269 | 3.11606 | 3.21893 | 3.22127 | 3.29374 | 3.29608 |
| 5.239E-06 | 4.152E-06 | 1.937E-06 | 1.162E-06 | | | | | | |
| 88.499 | 93.437 | 99.500 | 100.000 | | | | | | |
| 3.31011 | 3.49480 | 3.72157 | 3.74028 | | | | | | |

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

| CHI/Q | WITH RESPECT TO | WHEN THE WIND BLOWS |
|-----------------|-----------------|-----------------------|
| SEC/CUBIC METER | THE TOTAL TIME | INTO THIS SECTOR ONLY |

| | | | |
|------------------|------------------------------------|------------|-------|
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(2)= | 0.005 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(3)= | 0.677 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(4)= | 1.807 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(5)= | 2.630 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(6)= | 3.071 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(7)= | 3.718 |

| | | | | |
|---|---|-------------|------------|-------------|
| K | I | XQSAVE(K,I) | XQINT(K,I) | XQSLOP(K,I) |
| 6 | 1 | -6.51806 | -11.28245 | -1.11817 |

Calculation No. PM-1055 Revision 0

Attachment J

Page 1314 of 1411

| | | | | |
|---|---|-----------|--------------|-----------|
| 6 | 2 | -6.92826 | -12.24676 | -1.36580 |
| 6 | 3 | -8.87417 | -12.36000 | -1.41166 |
| 6 | 4 | -9.40215 | -13.60631 | -2.00648 |
| 6 | 5 | -9.71722 | -22.36591 | -6.52576 |
| 6 | 6 | -10.15982 | -75.21242 | -34.77917 |
| 6 | 7 | -13.15417 | NUMXQ(K) = 7 | |

| | | |
|-----------|-------|--------|
| 4.799E-04 | 0.037 | 1.000 |
| 3.120E-04 | 0.112 | 3.000 |
| 2.519E-04 | 0.187 | 5.000 |
| 1.854E-04 | 0.374 | 10.000 |
| 1.533E-04 | 0.561 | 15.000 |
| 1.331E-04 | 0.748 | 20.000 |
| 1.186E-04 | 0.935 | 25.000 |
| 1.076E-04 | 1.122 | 30.000 |
| 9.898E-05 | 1.309 | 35.000 |
| 9.193E-05 | 1.496 | 40.000 |
| 8.602E-05 | 1.683 | 45.000 |
| 8.034E-05 | 1.870 | 50.000 |
| 7.425E-05 | 2.057 | 55.000 |
| 6.903E-05 | 2.244 | 60.000 |
| 6.449E-05 | 2.431 | 65.000 |
| 6.051E-05 | 2.618 | 70.000 |
| 5.030E-05 | 2.805 | 75.000 |
| 4.182E-05 | 2.992 | 80.000 |
| 2.300E-05 | 3.179 | 85.000 |
| 9.448E-06 | 3.366 | 90.000 |
| 1.620E-04 | 0.5 | 13.37 |

ANNUAL AVERAGE = 2.86E-06

K= 6 FIVEXQ(K) = 1.620E-04 FIVEPR(K) = 13.368

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1315 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 10.1 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.1-45.7 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE NW SECTOR.

| STABILITY | WINDSPEED | FREQUENCY | DISTANCE | TERRAIN | HT | EFF | PLUME | HT | SIGMA-Y | SIGMA-Z | MEANDER-SY | ** CHI/Q VALUES (SEC/CUBIC METER) | | |
|----------------|-----------|-----------|----------|---------|--------|--------|--------|--------|-----------|-----------|------------|-----------------------------------|-----------|------|
| CLASS | METER/SEC | PERCENT | METERS | METERS | METERS | METERS | METERS | METERS | METERS | METERS | METERS | MEANDER | BLDG WAKE | USED |
| AT 10.0 METERS | | | | | | | | | | | | CA=1292.SQ.METERS | | |
| A | 1.6 | 2.38 | 823. | 0. | 0. | 157.1 | 310.1 | 157.1 | 4.187E-06 | 4.152E-06 | 4.152E-06 | | | |
| A | 3.3 | 5.19 | 823. | 0. | 0. | 157.1 | 310.1 | 157.1 | 1.954E-06 | 1.937E-06 | 1.937E-06 | | | |
| A | 5.6 | 0.29 | 823. | 0. | 0. | 157.1 | 310.1 | 157.1 | 1.172E-06 | 1.162E-06 | 1.162E-06 | | | |
| | | | | | | | | | | | | | | |
| B | 1.6 | 1.10 | 823. | 0. | 0. | 118.1 | 88.8 | 118.1 | 1.945E-05 | 1.871E-05 | 1.871E-05 | | | |
| B | 3.3 | 2.67 | 823. | 0. | 0. | 118.1 | 88.8 | 118.1 | 9.075E-06 | 8.732E-06 | 8.732E-06 | | | |
| B | 5.6 | 0.43 | 823. | 0. | 0. | 118.1 | 88.8 | 118.1 | 5.445E-06 | 5.239E-06 | 5.239E-06 | | | |
| B | 24.5 | 0.05 | 823. | 0. | 0. | 118.1 | 88.8 | 118.1 | 1.237E-06 | 1.191E-06 | 1.191E-06 | | | |
| | | | | | | | | | | | | | | |
| C | 1.6 | 0.52 | 823. | 0. | 0. | 89.7 | 51.2 | 89.7 | 4.443E-05 | 4.078E-05 | 4.078E-05 | | | |
| C | 3.3 | 1.57 | 823. | 0. | 0. | 89.7 | 51.2 | 89.7 | 2.073E-05 | 1.903E-05 | 1.903E-05 | | | |
| C | 5.6 | 0.24 | 823. | 0. | 0. | 89.7 | 51.2 | 89.7 | 1.244E-05 | 1.142E-05 | 1.142E-05 | | | |
| | | | | | | | | | | | | | | |
| D | 0.2 | 0.02 | 823. | 0. | 0. | 63.2 | 27.1 | 124.7 | 4.217E-04 | 6.716E-04 | 4.217E-04 | | | |
| D | 1.6 | 7.33 | 823. | 0. | 0. | 63.2 | 27.1 | 124.7 | 6.024E-05 | 9.594E-05 | 6.024E-05 | | | |
| D | 3.3 | 18.14 | 823. | 0. | 0. | 63.2 | 27.1 | 90.6 | 3.869E-05 | 4.477E-05 | 3.869E-05 | | | |
| D | 5.6 | 3.67 | 823. | 0. | 0. | 63.2 | 27.1 | 66.1 | 3.183E-05 | 2.686E-05 | 2.686E-05 | | | |
| D | 8.2 | 0.10 | 823. | 0. | 0. | 63.2 | 27.1 | 63.2 | 2.250E-05 | 1.815E-05 | 1.815E-05 | | | |
| | | | | | | | | | | | | | | |
| E | 0.2 | 0.18 | 823. | 0. | 0. | 44.9 | 18.7 | 132.5 | 5.778E-04 | 1.144E-03 | 5.778E-04 | | | |
| E | 1.6 | 25.85 | 823. | 0. | 0. | 44.9 | 18.7 | 132.5 | 8.255E-05 | 1.634E-04 | 8.255E-05 | | | |
| E | 3.3 | 18.81 | 823. | 0. | 0. | 44.9 | 18.7 | 79.9 | 6.389E-05 | 7.627E-05 | 6.389E-05 | | | |
| E | 5.6 | 2.48 | 823. | 0. | 0. | 44.9 | 18.7 | 48.4 | 6.329E-05 | 4.576E-05 | 4.576E-05 | | | |
| E | 8.2 | 0.05 | 823. | 0. | 0. | 44.9 | 18.7 | 44.9 | 4.606E-05 | 3.092E-05 | 3.092E-05 | | | |
| | | | | | | | | | | | | | | |
| F | 0.2 | 0.05 | 823. | 0. | 0. | 31.0 | 12.0 | 121.7 | 9.797E-04 | 1.827E-03 | 9.797E-04 | | | |
| F | 1.6 | 6.14 | 823. | 0. | 0. | 31.0 | 12.0 | 121.7 | 1.400E-04 | 2.609E-04 | 1.400E-04 | | | |
| F | 3.3 | 1.14 | 823. | 0. | 0. | 31.0 | 12.0 | 64.2 | 1.238E-04 | 1.218E-04 | 1.218E-04 | | | |
| | | | | | | | | | | | | | | |
| G | 0.2 | 0.01 | 823. | 0. | 0. | 21.4 | 7.7 | 125.7 | 1.477E-03 | 2.891E-03 | 1.477E-03 | | | |
| G | 1.6 | 1.52 | 823. | 0. | 0. | 21.4 | 7.7 | 125.7 | 2.109E-04 | 4.129E-04 | 2.109E-04 | | | |
| G | 3.3 | 0.10 | 823. | 0. | 0. | 21.4 | 7.7 | 54.9 | 2.255E-04 | 1.927E-04 | 1.927E-04 | | | |

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1316 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 10.1 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.1-45.7 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

NW SECTOR BOUNDARY DISTANCE = 823.0 METERS

LATERAL PLUME MEANDER/BUILDING WAKE CREDIT ALLOWED

AS A FUNCTION OF DOWNWIND DISTANCE.

MEANDER CREDIT IS FOR WINDSPEEDS LESS THAN 6 MPS.

BUILDING WAKE CREDIT ALLOWED: C= 0.5 A= 2584. D= 54.3

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

| | | | | | | | | | |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 1.477E-03 | 9.797E-04 | 5.778E-04 | 4.217E-04 | 2.109E-04 | 1.927E-04 | 1.400E-04 | 1.218E-04 | 8.255E-05 | 6.389E-05 |
| 0.012 | 0.058 | 0.242 | 0.259 | 1.783 | 1.878 | 8.020 | 9.162 | 35.014 | 53.819 |
| 0.00059 | 0.00285 | 0.01190 | 0.01273 | 0.08754 | 0.09222 | 0.39380 | 0.44991 | 1.71938 | 2.64283 |
| 6.024E-05 | 4.576E-05 | 4.078E-05 | 3.869E-05 | 3.092E-05 | 2.686E-05 | 1.903E-05 | 1.871E-05 | 1.815E-05 | 1.142E-05 |
| 61.151 | 63.627 | 64.150 | 82.289 | 82.337 | 86.003 | 87.574 | 88.669 | 88.764 | 89.002 |
| 3.00287 | 3.12443 | 3.15015 | 4.04088 | 4.04322 | 4.22323 | 4.30038 | 4.35415 | 4.35883 | 4.37052 |
| 8.732E-06 | 5.239E-06 | 4.152E-06 | 1.937E-06 | 1.191E-06 | 1.162E-06 | | | | |
| 91.668 | 92.097 | 94.477 | 99.667 | 99.714 | 100.000 | | | | |
| 4.50144 | 4.52248 | 4.63937 | 4.89420 | 4.89654 | 4.91057 | | | | |

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

| CHI/Q | WITH RESPECT TO | WHEN THE WIND BLOWS |
|-----------------|-----------------|-----------------------|
| SEC/CUBIC METER | THE TOTAL TIME | INTO THIS SECTOR ONLY |

| | | | |
|------------------|------------------------------------|--------------|-------|
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE (2) = | 0.003 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE (3) = | 1.717 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE (4) = | 3.000 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE (5) = | 4.037 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE (6) = | 4.220 |

| K | I | XQSAVE(K,I) | XQINT(K,I) | XQSLOP(K,I) |
|---|---|-------------|------------|-------------|
| 7 | 1 | -6.51806 | -11.57853 | -1.15526 |
| 7 | 2 | -6.92826 | -12.14371 | -1.29567 |

Calculation No. PM-1055 Revision 0**Attachment J****Page 1317 of 1411**

7 3 -9.40215 -12.23725 -1.33987
7 4 -9.71722 -15.90901 -3.29212
7 5 -10.15982 -41.06927 -17.69945
7 6 -10.52476 NUMXQ(K)= 6

| | | |
|-----------|-------|--------|
| 3.807E-04 | 0.049 | 1.000 |
| 2.508E-04 | 0.147 | 3.000 |
| 2.037E-04 | 0.246 | 5.000 |
| 1.511E-04 | 0.491 | 10.000 |
| 1.255E-04 | 0.737 | 15.000 |
| 1.094E-04 | 0.982 | 20.000 |
| 9.805E-05 | 1.228 | 25.000 |
| 8.942E-05 | 1.473 | 30.000 |
| 8.256E-05 | 1.719 | 35.000 |
| 7.675E-05 | 1.964 | 40.000 |
| 7.188E-05 | 2.210 | 45.000 |
| 6.771E-05 | 2.455 | 50.000 |
| 6.410E-05 | 2.701 | 55.000 |
| 6.092E-05 | 2.946 | 60.000 |
| 5.510E-05 | 3.192 | 65.000 |
| 4.939E-05 | 3.437 | 70.000 |
| 4.455E-05 | 3.683 | 75.000 |
| 4.040E-05 | 3.928 | 80.000 |
| 2.961E-05 | 4.174 | 85.000 |
| 1.499E-04 | 0.5 | 10.18 |

ANNUAL AVERAGE = 2.93E-06

K= 7 FIVEXQ(K)= 1.499E-04 FIVEPR(K)=10.182

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 01/28/03

Page 1318 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Ground Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 10.1 meters

DELTA-T HEIGHTS: 10.1-45.7 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE NNW SECTOR.

| STABILITY CLASS | WINDSPEED
METER/SEC
AT 10.0 METERS | FREQUENCY
PERCENT | DISTANCE
METERS | TERRAIN
METERS | HT
METERS | EFF
METERS | PLUME
METERS | HT
METERS | SIGMA-Y
METERS | SIGMA-Z
METERS | MEANDER-SY
METERS | ** CHI/Q VALUES (SEC/CUBIC METER) | | |
|-----------------|--|----------------------|--------------------|-------------------|--------------|---------------|-----------------|--------------|-------------------|-------------------|----------------------|-----------------------------------|-----------|------|
| | | | | | | | | | | | | MEANDER | BLDG WAKE | USED |
| | | | | | | | | | | | | CA=1292.SQ.METERS | | |
| A | 1.6 | 1.13 | 823. | 0. | 0. | 0. | 157.1 | 310.1 | 157.1 | 4.187E-06 | 4.152E-06 | 4.152E-06 | | |
| A | 3.3 | 2.78 | 823. | 0. | 0. | 0. | 157.1 | 310.1 | 157.1 | 1.954E-06 | 1.937E-06 | 1.937E-06 | | |
| A | 5.6 | 1.02 | 823. | 0. | 0. | 0. | 157.1 | 310.1 | 157.1 | 1.172E-06 | 1.162E-06 | 1.162E-06 | | |
| A | 8.2 | 0.18 | 823. | 0. | 0. | 0. | 157.1 | 310.1 | 157.1 | 7.921E-07 | 7.854E-07 | 7.854E-07 | | |
| B | 1.6 | 0.46 | 823. | 0. | 0. | 0. | 118.1 | 88.8 | 118.1 | 1.945E-05 | 1.871E-05 | 1.871E-05 | | |
| B | 3.3 | 2.54 | 823. | 0. | 0. | 0. | 118.1 | 88.8 | 118.1 | 9.075E-06 | 8.732E-06 | 8.732E-06 | | |
| B | 5.6 | 1.20 | 823. | 0. | 0. | 0. | 118.1 | 88.8 | 118.1 | 5.445E-06 | 5.239E-06 | 5.239E-06 | | |
| B | 8.2 | 0.25 | 823. | 0. | 0. | 0. | 118.1 | 88.8 | 118.1 | 3.679E-06 | 3.540E-06 | 3.540E-06 | | |
| C | 1.6 | 0.18 | 823. | 0. | 0. | 0. | 89.7 | 51.2 | 89.7 | 4.443E-05 | 4.078E-05 | 4.078E-05 | | |
| C | 3.3 | 1.87 | 823. | 0. | 0. | 0. | 89.7 | 51.2 | 89.7 | 2.073E-05 | 1.903E-05 | 1.903E-05 | | |
| C | 5.6 | 0.60 | 823. | 0. | 0. | 0. | 89.7 | 51.2 | 89.7 | 1.244E-05 | 1.142E-05 | 1.142E-05 | | |
| C | 8.2 | 0.11 | 823. | 0. | 0. | 0. | 89.7 | 51.2 | 89.7 | 8.406E-06 | 7.714E-06 | 7.714E-06 | | |
| C | 10.7 | 0.04 | 823. | 0. | 0. | 0. | 89.7 | 51.2 | 89.7 | 6.479E-06 | 5.947E-06 | 5.947E-06 | | |
| D | 0.2 | 0.02 | 823. | 0. | 0. | 0. | 63.2 | 27.1 | 124.7 | 4.217E-04 | 6.716E-04 | 4.217E-04 | | |
| D | 1.6 | 8.07 | 823. | 0. | 0. | 0. | 63.2 | 27.1 | 124.7 | 6.024E-05 | 9.594E-05 | 6.024E-05 | | |
| D | 3.3 | 20.87 | 823. | 0. | 0. | 0. | 63.2 | 27.1 | 90.6 | 3.869E-05 | 4.477E-05 | 3.869E-05 | | |
| D | 5.6 | 5.29 | 823. | 0. | 0. | 0. | 63.2 | 27.1 | 66.1 | 3.183E-05 | 2.686E-05 | 2.686E-05 | | |
| D | 8.2 | 0.42 | 823. | 0. | 0. | 0. | 63.2 | 27.1 | 63.2 | 2.250E-05 | 1.815E-05 | 1.815E-05 | | |
| E | 0.2 | 0.15 | 823. | 0. | 0. | 0. | 44.9 | 18.7 | 132.5 | 5.778E-04 | 1.144E-03 | 5.778E-04 | | |
| E | 1.6 | 21.15 | 823. | 0. | 0. | 0. | 44.9 | 18.7 | 132.5 | 8.255E-05 | 1.634E-04 | 8.255E-05 | | |
| E | 3.3 | 23.87 | 823. | 0. | 0. | 0. | 44.9 | 18.7 | 79.9 | 6.389E-05 | 7.627E-05 | 6.389E-05 | | |
| E | 5.6 | 2.50 | 823. | 0. | 0. | 0. | 44.9 | 18.7 | 48.4 | 6.329E-05 | 4.576E-05 | 4.576E-05 | | |
| E | 8.2 | 0.21 | 823. | 0. | 0. | 0. | 44.9 | 18.7 | 44.9 | 4.606E-05 | 3.092E-05 | 3.092E-05 | | |
| F | 0.2 | 0.03 | 823. | 0. | 0. | 0. | 31.0 | 12.0 | 121.7 | 9.797E-04 | 1.827E-03 | 9.797E-04 | | |
| F | 1.6 | 3.49 | 823. | 0. | 0. | 0. | 31.0 | 12.0 | 121.7 | 1.400E-04 | 2.609E-04 | 1.400E-04 | | |
| F | 3.3 | 0.63 | 823. | 0. | 0. | 0. | 31.0 | 12.0 | 64.2 | 1.238E-04 | 1.218E-04 | 1.218E-04 | | |
| G | 0.2 | 0.01 | 823. | 0. | 0. | 0. | 21.4 | 7.7 | 125.7 | 1.477E-03 | 2.891E-03 | 1.477E-03 | | |
| G | 1.6 | 0.95 | 823. | 0. | 0. | 0. | 21.4 | 7.7 | 125.7 | 2.109E-04 | 4.129E-04 | 2.109E-04 | | |

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1319 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 10.1 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.1 45.7 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

NNW SECTOR BOUNDARY DISTANCE = 823.0 METERS

LATERAL PLUME MEANDER/BUILDING WAKE CREDIT ALLOWED

AS A FUNCTION OF DOWNWIND DISTANCE.

MEANDER CREDIT IS FOR WINDSPEEDS LESS THAN 6 MPS.

BUILDING WAKE CREDIT ALLOWED: C= 0.5 A= 2584. D= 54.3

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

| | | | | | | | | | |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 1.477E-03 | 9.797E-04 | 5.778E-04 | 4.217E-04 | 2.109E-04 | 1.400E-04 | 1.218E-04 | 8.255E-05 | 6.389E-05 | 6.024E-05 |
| 0.008 | 0.034 | 0.184 | 0.203 | 1.155 | 4.645 | 5.279 | 26.430 | 50.295 | 58.368 |
| 0.00050 | 0.00223 | 0.01224 | 0.01347 | 0.07659 | 0.30804 | 0.35012 | 1.75284 | 3.33558 | 3.87095 |
| 4.576E-05 | 4.078E-05 | 3.869E-05 | 3.092E-05 | 2.686E-05 | 1.903E-05 | 1.871E-05 | 1.815E-05 | 1.142E-05 | 8.732E-06 |
| 60.871 | 61.047 | 81.916 | 82.128 | 87.415 | 89.284 | 89.742 | 90.165 | 90.764 | 93.302 |
| 4.03694 | 4.04863 | 5.43265 | 5.44668 | 5.79736 | 5.92126 | 5.95166 | 5.97971 | 6.01945 | 6.18778 |
| 7.714E-06 | 5.947E-06 | 5.239E-06 | 4.152E-06 | 3.540E-06 | 1.937E-06 | 1.162E-06 | 7.854E-07 | | |
| 93.408 | 93.443 | 94.642 | 95.770 | 96.017 | 98.801 | 99.824 | 100.000 | | |
| 6.19479 | 6.19713 | 6.27662 | 6.35143 | 6.36780 | 6.55249 | 6.62029 | 6.63198 | | |

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2) = 3.868
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3) = 5.429
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4) = 5.794
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(5) = 5.976

| K | I | XQSAVE(K,I) | XQINT(K,I) | XQSLOP(K,I) |
|---|---|-------------|------------|-------------|
| 8 | 1 | -6.51806 | -11.84871 | -1.20678 |
| 8 | 2 | -9.71722 | -14.55362 | -2.73822 |
| 8 | 3 | -10.15982 | -28.30371 | -11.30728 |

Calculation No. PM-1055 Revision 0

Attachment J

Page 1320 of 1411

8 4 -10.52476 -50.18600 -25.22426
8 5 -10.91680 NUMXQ(K)= 5

| | | |
|-----------|-------|--------|
| 3.442E-04 | 0.066 | 1.000 |
| 2.310E-04 | 0.199 | 3.000 |
| 1.893E-04 | 0.332 | 5.000 |
| 1.420E-04 | 0.663 | 10.000 |
| 1.188E-04 | 0.995 | 15.000 |
| 1.040E-04 | 1.326 | 20.000 |
| 9.350E-05 | 1.658 | 25.000 |
| 8.549E-05 | 1.990 | 30.000 |
| 7.910E-05 | 2.321 | 35.000 |
| 7.383E-05 | 2.653 | 40.000 |
| 6.939E-05 | 2.984 | 45.000 |
| 6.558E-05 | 3.316 | 50.000 |
| 6.225E-05 | 3.648 | 55.000 |
| 5.817E-05 | 3.979 | 60.000 |
| 5.251E-05 | 4.311 | 65.000 |
| 4.769E-05 | 4.642 | 70.000 |
| 4.354E-05 | 4.974 | 75.000 |
| 3.995E-05 | 5.306 | 80.000 |
| 3.146E-05 | 5.637 | 85.000 |
| 1.858E-05 | 5.969 | 90.000 |

| | | |
|-----------|-----|------|
| 1.601E-04 | 0.5 | 7.54 |
|-----------|-----|------|

ANNUAL AVERAGE = 3.49E-06

K= 8 FIVEXQ(K)= 1.601E-04 FIVEPR(K)= 7.539

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1321 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 10.1 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.1-45.7 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE N SECTOR.

| STABILITY | WINDSPEED | FREQUENCY | DISTANCE | TERRAIN | HT | EFF | PLUME | HT | SIGMA-Y | SIGMA-Z | MEANDER-SY | ** CHI/Q VALUES (SEC/CUBIC METER) | | |
|----------------|-----------|-----------|----------|---------|--------|--------|--------|--------|-----------|-----------|------------|-----------------------------------|-----------|------|
| CLASS | METER/SEC | PERCENT | METERS | METERS | METERS | METERS | METERS | METERS | METERS | METERS | METERS | MEANDER | BLDG WAKE | USED |
| AT 10.0 METERS | | | | | | | | | | | | CA=1292.SQ.METERS | | |
| A | 1.6 | 0.23 | 823. | 0. | 0. | 157.1 | 310.1 | 157.1 | 4.187E-06 | 4.152E-06 | 4.152E-06 | | | |
| A | 3.3 | 2.01 | 823. | 0. | 0. | 157.1 | 310.1 | 157.1 | 1.954E-06 | 1.937E-06 | 1.937E-06 | | | |
| A | 5.6 | 2.77 | 823. | 0. | 0. | 157.1 | 310.1 | 157.1 | 1.172E-06 | 1.162E-06 | 1.162E-06 | | | |
| A | 8.2 | 0.37 | 823. | 0. | 0. | 157.1 | 310.1 | 157.1 | 7.921E-07 | 7.854E-07 | 7.854E-07 | | | |
| B | 1.6 | 0.34 | 823. | 0. | 0. | 118.1 | 88.8 | 118.1 | 1.945E-05 | 1.871E-05 | 1.871E-05 | | | |
| B | 3.3 | 2.57 | 823. | 0. | 0. | 118.1 | 88.8 | 118.1 | 9.075E-06 | 8.732E-06 | 8.732E-06 | | | |
| B | 5.6 | 4.10 | 823. | 0. | 0. | 118.1 | 88.8 | 118.1 | 5.445E-06 | 5.239E-06 | 5.239E-06 | | | |
| B | 8.2 | 0.62 | 823. | 0. | 0. | 118.1 | 88.8 | 118.1 | 3.679E-06 | 3.540E-06 | 3.540E-06 | | | |
| C | 1.6 | 0.17 | 823. | 0. | 0. | 89.7 | 51.2 | 89.7 | 4.443E-05 | 4.078E-05 | 4.078E-05 | | | |
| C | 3.3 | 1.87 | 823. | 0. | 0. | 89.7 | 51.2 | 89.7 | 2.073E-05 | 1.903E-05 | 1.903E-05 | | | |
| C | 5.6 | 2.12 | 823. | 0. | 0. | 89.7 | 51.2 | 89.7 | 1.244E-05 | 1.142E-05 | 1.142E-05 | | | |
| C | 8.2 | 0.23 | 823. | 0. | 0. | 89.7 | 51.2 | 89.7 | 8.406E-06 | 7.714E-06 | 7.714E-06 | | | |
| D | 0.2 | 0.01 | 823. | 0. | 0. | 63.2 | 27.1 | 124.7 | 4.217E-04 | 6.716E-04 | 4.217E-04 | | | |
| D | 1.6 | 5.00 | 823. | 0. | 0. | 63.2 | 27.1 | 124.7 | 6.024E-05 | 9.594E-05 | 6.024E-05 | | | |
| D | 3.3 | 15.38 | 823. | 0. | 0. | 63.2 | 27.1 | 90.6 | 3.869E-05 | 4.477E-05 | 3.869E-05 | | | |
| D | 5.6 | 9.19 | 823. | 0. | 0. | 63.2 | 27.1 | 66.1 | 3.183E-05 | 2.686E-05 | 2.686E-05 | | | |
| D | 8.2 | 1.27 | 823. | 0. | 0. | 63.2 | 27.1 | 63.2 | 2.250E-05 | 1.815E-05 | 1.815E-05 | | | |
| E | 0.2 | 0.13 | 823. | 0. | 0. | 44.9 | 18.7 | 132.5 | 5.778E-04 | 1.144E-03 | 5.778E-04 | | | |
| E | 1.6 | 17.92 | 823. | 0. | 0. | 44.9 | 18.7 | 132.5 | 8.255E-05 | 1.634E-04 | 8.255E-05 | | | |
| E | 3.3 | 21.79 | 823. | 0. | 0. | 44.9 | 18.7 | 79.9 | 6.389E-05 | 7.627E-05 | 6.389E-05 | | | |
| E | 5.6 | 5.71 | 823. | 0. | 0. | 44.9 | 18.7 | 48.4 | 6.329E-05 | 4.576E-05 | 4.576E-05 | | | |
| E | 8.2 | 0.71 | 823. | 0. | 0. | 44.9 | 18.7 | 44.9 | 4.606E-05 | 3.092E-05 | 3.092E-05 | | | |
| E | 10.7 | 0.03 | 823. | 0. | 0. | 44.9 | 18.7 | 44.9 | 3.551E-05 | 2.383E-05 | 2.383E-05 | | | |
| F | 0.2 | 0.03 | 823. | 0. | 0. | 31.0 | 12.0 | 121.7 | 9.797E-04 | 1.827E-03 | 9.797E-04 | | | |
| F | 1.6 | 3.42 | 823. | 0. | 0. | 31.0 | 12.0 | 121.7 | 1.400E-04 | 2.609E-04 | 1.400E-04 | | | |
| F | 3.3 | 1.38 | 823. | 0. | 0. | 31.0 | 12.0 | 64.2 | 1.238E-04 | 1.218E-04 | 1.218E-04 | | | |
| G | 0.2 | 0.01 | 823. | 0. | 0. | 21.4 | 7.7 | 125.7 | 1.477E-03 | 2.891E-03 | 1.477E-03 | | | |
| G | 1.6 | 0.65 | 823. | 0. | 0. | 21.4 | 7.7 | 125.7 | 2.109E-04 | 4.129E-04 | 2.109E-04 | | | |

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1322 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 10.1 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.1-45.7 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

N SECTOR BOUNDARY DISTANCE = 823.0 METERS

LATERAL PLUME MEANDER/BUILDING WAKE CREDIT ALLOWED

AS A FUNCTION OF DOWNWIND DISTANCE.

MEANDER CREDIT IS FOR WINDSPEEDS LESS THAN 6 MPS.

BUILDING WAKE CREDIT ALLOWED: C= 0.5 A= 2584. D= 54.3

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

| | | | | | | | | | |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 1.477E-03 | 9.797E-04 | 5.778E-04 | 4.217E-04 | 2.109E-04 | 1.400E-04 | 1.218E-04 | 8.255E-05 | 6.389E-05 | 6.024E-05 |
| 0.005 | 0.031 | 0.159 | 0.170 | 0.820 | 4.240 | 5.625 | 23.545 | 45.337 | 50.339 |
| 0.00043 | 0.00254 | 0.01311 | 0.01407 | 0.06784 | 0.35072 | 0.46528 | 1.94748 | 3.74998 | 4.16378 |
| 4.576E-05 | 4.078E-05 | 3.869E-05 | 3.092E-05 | 2.686E-05 | 2.383E-05 | 1.903E-05 | 1.871E-05 | 1.815E-05 | 1.142E-05 |
| 56.049 | 56.218 | 71.594 | 72.301 | 81.487 | 81.515 | 83.381 | 83.720 | 84.992 | 87.111 |
| 4.63603 | 4.65006 | 5.92186 | 5.98031 | 6.74012 | 6.74245 | 6.89675 | 6.92481 | 7.03001 | 7.20535 |
| 8.732E-06 | 7.714E-06 | 5.239E-06 | 4.152E-06 | 3.540E-06 | 1.937E-06 | 1.162E-06 | 7.854E-07 | | |
| 89.684 | 89.910 | 94.008 | 94.234 | 94.856 | 96.863 | 99.633 | 100.000 | | |
| 7.41810 | 7.43680 | 7.77579 | 7.79449 | 7.84593 | 8.01192 | 8.24103 | 8.27142 | | |

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

| CHI/Q | WITH RESPECT TO | WHEN THE WIND BLOWS |
|-----------------|-----------------|-----------------------|
| SEC/CUBIC METER | THE TOTAL TIME | INTO THIS SECTOR ONLY |

| | | |
|---|------------|-------|
| HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(2)= | 0.003 |
| HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(3)= | 3.747 |
| HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(4)= | 4.160 |
| HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(5)= | 5.918 |
| HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(6)= | 6.736 |
| HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(7)= | 7.026 |

| | | | | |
|---|---|-------------|------------|-------------|
| K | I | XQSAVE(K,I) | XQINT(K,I) | XQSLOP(K,I) |
| 9 | 1 | -6.51806 | -11.08605 | -1.02611 |

Calculation No. PM-1055 Revision 0

Attachment J

Page 1323 of 1411

9 2 -6.92826 -11.79912 -1.20208
 9 3 -9.65837 -11.81984 -1.21372
 9 4 -9.71722 -14.20946 -2.59311
 9 5 -10.15982 -18.79955 -5.53229
 9 6 -10.52476 -37.32388 -17.91712
 9 7 -10.91680 NUMXQ(K) = 7

| | | |
|-----------|-------|--------|
| 3.299E-04 | 0.083 | 1.000 |
| 2.201E-04 | 0.248 | 3.000 |
| 1.797E-04 | 0.414 | 5.000 |
| 1.340E-04 | 0.827 | 10.000 |
| 1.116E-04 | 1.241 | 15.000 |
| 9.738E-05 | 1.654 | 20.000 |
| 8.728E-05 | 2.068 | 25.000 |
| 7.958E-05 | 2.481 | 30.000 |
| 7.345E-05 | 2.895 | 35.000 |
| 6.840E-05 | 3.309 | 40.000 |
| 6.415E-05 | 3.722 | 45.000 |
| 6.047E-05 | 4.136 | 50.000 |
| 5.405E-05 | 4.549 | 55.000 |
| 4.850E-05 | 4.963 | 60.000 |
| 4.383E-05 | 5.376 | 65.000 |
| 3.984E-05 | 5.790 | 70.000 |
| 3.398E-05 | 6.204 | 75.000 |
| 2.831E-05 | 6.617 | 80.000 |

| | | |
|-----------|-----|------|
| 1.662E-04 | 0.5 | 6.04 |
|-----------|-----|------|

ANNUAL AVERAGE = 3.79E-06

K= 9 FIVEXQ(K) = 1.662E-04 FIVEPR(K) = 6.045

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1324 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 10.1 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.1-45.7 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE NNE SECTOR.

| STABILITY CLASS | WINDSPEED
METER/SEC
AT 10.0 METERS | FREQUENCY
PERCENT | DISTANCE
METERS | TERRAIN
METERS | HT
METERS | EFF
METERS | PLUME
METERS | HT
METERS | SIGMA-Y
METERS | SIGMA-Z
METERS | MEANDER-SY
METERS | ** CHI/Q VALUES (SEC/CUBIC METER) | | |
|-----------------|--|----------------------|--------------------|-------------------|--------------|---------------|-----------------|--------------|-------------------|-------------------|----------------------|-----------------------------------|-----------|------|
| | | | | | | | | | | | | MEANDER | BLDG WAKE | USED |
| | | | | | | | | | | | | CA=1292.SQ.METERS | | |
| A | 1.6 | 0.17 | 823. | 0. | 0. | 157.1 | 310.1 | 157.1 | 4.187E-06 | 4.152E-06 | 4.152E-06 | | | |
| A | 3.3 | 2.41 | 823. | 0. | 0. | 157.1 | 310.1 | 157.1 | 1.954E-06 | 1.937E-06 | 1.937E-06 | | | |
| A | 5.6 | 1.74 | 823. | 0. | 0. | 157.1 | 310.1 | 157.1 | 1.172E-06 | 1.162E-06 | 1.162E-06 | | | |
| A | 8.2 | 0.06 | 823. | 0. | 0. | 157.1 | 310.1 | 157.1 | 7.921E-07 | 7.854E-07 | 7.854E-07 | | | |
| B | 1.6 | 0.11 | 823. | 0. | 0. | 118.1 | 88.8 | 118.1 | 1.945E-05 | 1.871E-05 | 1.871E-05 | | | |
| B | 3.3 | 2.52 | 823. | 0. | 0. | 118.1 | 88.8 | 118.1 | 9.075E-06 | 8.732E-06 | 8.732E-06 | | | |
| B | 5.6 | 2.58 | 823. | 0. | 0. | 118.1 | 88.8 | 118.1 | 5.445E-06 | 5.239E-06 | 5.239E-06 | | | |
| B | 8.2 | 0.06 | 823. | 0. | 0. | 118.1 | 88.8 | 118.1 | 3.679E-06 | 3.540E-06 | 3.540E-06 | | | |
| C | 3.3 | 1.35 | 823. | 0. | 0. | 89.7 | 51.2 | 89.7 | 2.073E-05 | 1.903E-05 | 1.903E-05 | | | |
| C | 5.6 | 1.74 | 823. | 0. | 0. | 89.7 | 51.2 | 89.7 | 1.244E-05 | 1.142E-05 | 1.142E-05 | | | |
| D | 0.2 | 0.01 | 823. | 0. | 0. | 63.2 | 27.1 | 124.7 | 4.217E-04 | 6.716E-04 | 4.217E-04 | | | |
| D | 1.6 | 5.16 | 823. | 0. | 0. | 63.2 | 27.1 | 124.7 | 6.024E-05 | 9.594E-05 | 6.024E-05 | | | |
| D | 3.3 | 13.07 | 823. | 0. | 0. | 63.2 | 27.1 | 90.6 | 3.869E-05 | 4.477E-05 | 3.869E-05 | | | |
| D | 5.6 | 6.06 | 823. | 0. | 0. | 63.2 | 27.1 | 66.1 | 3.183E-05 | 2.686E-05 | 2.686E-05 | | | |
| D | 8.2 | 0.56 | 823. | 0. | 0. | 63.2 | 27.1 | 63.2 | 2.250E-05 | 1.815E-05 | 1.815E-05 | | | |
| D | 10.7 | 0.11 | 823. | 0. | 0. | 63.2 | 27.1 | 63.2 | 1.735E-05 | 1.399E-05 | 1.399E-05 | | | |
| E | 0.2 | 0.15 | 823. | 0. | 0. | 44.9 | 18.7 | 132.5 | 5.778E-04 | 1.144E-03 | 5.778E-04 | | | |
| E | 1.6 | 21.04 | 823. | 0. | 0. | 44.9 | 18.7 | 132.5 | 8.255E-05 | 1.634E-04 | 8.255E-05 | | | |
| E | 3.3 | 21.93 | 823. | 0. | 0. | 44.9 | 18.7 | 79.9 | 6.389E-05 | 7.627E-05 | 6.389E-05 | | | |
| E | 5.6 | 3.03 | 823. | 0. | 0. | 44.9 | 18.7 | 48.4 | 6.329E-05 | 4.576E-05 | 4.576E-05 | | | |
| E | 8.2 | 0.22 | 823. | 0. | 0. | 44.9 | 18.7 | 44.9 | 4.606E-05 | 3.092E-05 | 3.092E-05 | | | |
| F | 0.2 | 0.08 | 823. | 0. | 0. | 31.0 | 12.0 | 121.7 | 9.797E-04 | 1.827E-03 | 9.797E-04 | | | |
| F | 1.6 | 11.00 | 823. | 0. | 0. | 31.0 | 12.0 | 121.7 | 1.400E-04 | 2.609E-04 | 1.400E-04 | | | |
| F | 3.3 | 2.58 | 823. | 0. | 0. | 31.0 | 12.0 | 64.2 | 1.238E-04 | 1.218E-04 | 1.218E-04 | | | |
| G | 0.2 | 0.01 | 823. | 0. | 0. | 21.4 | 7.7 | 125.7 | 1.477E-03 | 2.891E-03 | 1.477E-03 | | | |
| G | 1.6 | 1.85 | 823. | 0. | 0. | 21.4 | 7.7 | 125.7 | 2.109E-04 | 4.129E-04 | 2.109E-04 | | | |
| G | 3.3 | 0.39 | 823. | 0. | 0. | 21.4 | 7.7 | 54.9 | 2.255E-04 | 1.927E-04 | 1.927E-04 | | | |

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1325 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 10.1 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.1-45.7 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

NNE SECTOR BOUNDARY DISTANCE = 823.0 METERS

LATERAL PLUME MEANDER/BUILDING WAKE CREDIT ALLOWED

AS A FUNCTION OF DOWNWIND DISTANCE.

MEANDER CREDIT IS FOR WINDSPEEDS LESS THAN 6 MPS.

BUILDING WAKE CREDIT ALLOWED: C= 0.5 A= 2584. D= 54.3

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

| | | | | | | | | | |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 1.477E-03 | 9.797E-04 | 5.778E-04 | 4.217E-04 | 2.109E-04 | 1.927E-04 | 1.400E-04 | 1.218E-04 | 8.255E-05 | 6.389E-05 |
| 0.015 | 0.097 | 0.247 | 0.259 | 2.110 | 2.503 | 13.498 | 16.078 | 37.115 | 59.049 |
| 0.00061 | 0.00403 | 0.01029 | 0.01078 | 0.08793 | 0.10430 | 0.56252 | 0.67006 | 1.54676 | 2.46087 |
| 6.024E-05 | 4.576E-05 | 3.869E-05 | 3.092E-05 | 2.686E-05 | 1.903E-05 | 1.871E-05 | 1.815E-05 | 1.399E-05 | 1.142E-05 |
| 64.210 | 67.239 | 80.310 | 80.534 | 86.593 | 87.939 | 88.051 | 88.612 | 88.724 | 90.463 |
| 2.67595 | 2.80220 | 3.34692 | 3.35627 | 3.60876 | 3.66487 | 3.66955 | 3.69293 | 3.69760 | 3.77008 |
| 8.732E-06 | 5.239E-06 | 4.152E-06 | 3.540E-06 | 1.937E-06 | 1.162E-06 | 7.854E-07 | | | |
| 92.988 | 95.568 | 95.737 | 95.793 | 98.205 | 99.944 | 100.000 | | | |
| 3.87528 | 3.98282 | 3.98984 | 3.99218 | 4.09270 | 4.16518 | 4.16752 | | | |

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

| | | | |
|------------------|------------------------------------|-------------|-------|
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(3) = | 2.458 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(4) = | 2.673 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(5) = | 3.344 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(6) = | 3.606 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(7) = | 3.872 |

| K | I | XQSAVE(K,I) | XQINT(K,I) | XQSLOP(K,I) |
|----|---|-------------|------------|-------------|
| 10 | 1 | -6.51806 | -10.67817 | -0.95117 |
| 10 | 2 | -6.92826 | -12.37723 | -1.38214 |

Calculation No. PM-1055 Revision 0**Attachment J****Page 1326 of 1411**

10 3 -9.65837 -12.87442 -1.63489
10 4 -9.71722 -18.38227 -4.48702
10 5 -10.15982 -29.78085 -10.70727
10 6 -10.52476 -72.37913 -34.39386
10 7 -11.64850 NUMXQ(K) = 7

| | | |
|-----------|-------|--------|
| 4.271E-04 | 0.042 | 1.000 |
| 2.751E-04 | 0.125 | 3.000 |
| 2.212E-04 | 0.208 | 5.000 |
| 1.616E-04 | 0.417 | 10.000 |
| 1.331E-04 | 0.625 | 15.000 |
| 1.153E-04 | 0.834 | 20.000 |
| 1.028E-04 | 1.042 | 25.000 |
| 9.338E-05 | 1.250 | 30.000 |
| 8.593E-05 | 1.459 | 35.000 |
| 7.984E-05 | 1.667 | 40.000 |
| 7.474E-05 | 1.875 | 45.000 |
| 7.038E-05 | 2.084 | 50.000 |
| 6.661E-05 | 2.292 | 55.000 |
| 6.318E-05 | 2.501 | 60.000 |
| 5.882E-05 | 2.709 | 65.000 |
| 5.088E-05 | 2.917 | 70.000 |
| 4.438E-05 | 3.126 | 75.000 |
| 3.900E-05 | 3.334 | 80.000 |
| 2.940E-05 | 3.542 | 85.000 |
| 1.464E-05 | 3.751 | 90.000 |
| 1.483E-04 | 0.5 | 12.00 |

ANNUAL AVERAGE = 2.55E-06

K= 10 FIVEXQ(K) = 1.483E-04 FIVEPR(K) = 11.998

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 01/28/03

Page 1327 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Ground Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 10.1 meters

DELTA-T HEIGHTS: 10.1-45.7 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE NE SECTOR.

| STABILITY | WINDSPEED | FREQUENCY | DISTANCE | TERRAIN | HT | EFF | PLUME | HT | SIGMA-Y | SIGMA-Z | MEANDER-SY | ** CHI/Q VALUES (SEC/CUBIC METER) | | |
|-----------|----------------|-----------|----------|---------|--------|--------|--------|--------|-----------|-----------|------------|-----------------------------------|-----------|------|
| CLASS | METER/SEC | PERCENT | METERS | METERS | METERS | METERS | METERS | METERS | METERS | METERS | METERS | MEANDER | BLDG WAKE | USED |
| | AT 10.0 METERS | | | | | | | | | | | CA=1292.SQ.METERS | | |
| A | 1.6 | 0.21 | 823. | 0. | 0. | 157.1 | 310.1 | 157.1 | 4.187E-06 | 4.152E-06 | 4.152E-06 | | | |
| A | 3.3 | 2.81 | 823. | 0. | 0. | 157.1 | 310.1 | 157.1 | 1.954E-06 | 1.937E-06 | 1.937E-06 | | | |
| A | 5.6 | 2.03 | 823. | 0. | 0. | 157.1 | 310.1 | 157.1 | 1.172E-06 | 1.162E-06 | 1.162E-06 | | | |
| A | 8.2 | 0.16 | 823. | 0. | 0. | 157.1 | 310.1 | 157.1 | 7.921E-07 | 7.854E-07 | 7.854E-07 | | | |
| | | | | | | | | | | | | | | |
| B | 1.6 | 0.31 | 823. | 0. | 0. | 118.1 | 88.8 | 118.1 | 1.945E-05 | 1.871E-05 | 1.871E-05 | | | |
| B | 3.3 | 3.34 | 823. | 0. | 0. | 118.1 | 88.8 | 118.1 | 9.075E-06 | 8.732E-06 | 8.732E-06 | | | |
| B | 5.6 | 1.46 | 823. | 0. | 0. | 118.1 | 88.8 | 118.1 | 5.445E-06 | 5.239E-06 | 5.239E-06 | | | |
| B | 8.2 | 0.16 | 823. | 0. | 0. | 118.1 | 88.8 | 118.1 | 3.679E-06 | 3.540E-06 | 3.540E-06 | | | |
| | | | | | | | | | | | | | | |
| C | 1.6 | 0.26 | 823. | 0. | 0. | 89.7 | 51.2 | 89.7 | 4.443E-05 | 4.078E-05 | 4.078E-05 | | | |
| C | 3.3 | 1.25 | 823. | 0. | 0. | 89.7 | 51.2 | 89.7 | 2.073E-05 | 1.903E-05 | 1.903E-05 | | | |
| C | 5.6 | 1.15 | 823. | 0. | 0. | 89.7 | 51.2 | 89.7 | 1.244E-05 | 1.142E-05 | 1.142E-05 | | | |
| | | | | | | | | | | | | | | |
| D | 0.2 | 0.01 | 823. | 0. | 0. | 63.2 | 27.1 | 124.7 | 4.217E-04 | 6.716E-04 | 4.217E-04 | | | |
| D | 1.6 | 4.06 | 823. | 0. | 0. | 63.2 | 27.1 | 124.7 | 6.024E-05 | 9.594E-05 | 6.024E-05 | | | |
| D | 3.3 | 9.80 | 823. | 0. | 0. | 63.2 | 27.1 | 90.6 | 3.869E-05 | 4.477E-05 | 3.869E-05 | | | |
| D | 5.6 | 4.06 | 823. | 0. | 0. | 63.2 | 27.1 | 66.1 | 3.183E-05 | 2.686E-05 | 2.686E-05 | | | |
| D | 8.2 | 0.26 | 823. | 0. | 0. | 63.2 | 27.1 | 63.2 | 2.250E-05 | 1.815E-05 | 1.815E-05 | | | |
| | | | | | | | | | | | | | | |
| E | 0.2 | 0.12 | 823. | 0. | 0. | 44.9 | 18.7 | 132.5 | 5.778E-04 | 1.144E-03 | 5.778E-04 | | | |
| E | 1.6 | 16.94 | 823. | 0. | 0. | 44.9 | 18.7 | 132.5 | 8.255E-05 | 1.634E-04 | 8.255E-05 | | | |
| E | 3.3 | 16.88 | 823. | 0. | 0. | 44.9 | 18.7 | 79.9 | 6.389E-05 | 7.627E-05 | 6.389E-05 | | | |
| E | 5.6 | 2.40 | 823. | 0. | 0. | 44.9 | 18.7 | 48.4 | 6.329E-05 | 4.576E-05 | 4.576E-05 | | | |
| | | | | | | | | | | | | | | |
| F | 0.2 | 0.11 | 823. | 0. | 0. | 31.0 | 12.0 | 121.7 | 9.797E-04 | 1.827E-03 | 9.797E-04 | | | |
| F | 1.6 | 15.32 | 823. | 0. | 0. | 31.0 | 12.0 | 121.7 | 1.400E-04 | 2.609E-04 | 1.400E-04 | | | |
| F | 3.3 | 5.05 | 823. | 0. | 0. | 31.0 | 12.0 | 64.2 | 1.238E-04 | 1.218E-04 | 1.218E-04 | | | |
| F | 5.6 | 0.05 | 823. | 0. | 0. | 31.0 | 12.0 | 34.1 | 1.400E-04 | 7.306E-05 | 7.306E-05 | | | |
| | | | | | | | | | | | | | | |
| G | 0.2 | 0.07 | 823. | 0. | 0. | 21.4 | 7.7 | 125.7 | 1.477E-03 | 2.891E-03 | 1.477E-03 | | | |
| G | 1.6 | 8.65 | 823. | 0. | 0. | 21.4 | 7.7 | 125.7 | 2.109E-04 | 4.129E-04 | 2.109E-04 | | | |
| G | 3.3 | 3.07 | 823. | 0. | 0. | 21.4 | 7.7 | 54.9 | 2.255E-04 | 1.927E-04 | 1.927E-04 | | | |

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1328 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 10.1 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.1-45.7 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

NE SECTOR BOUNDARY DISTANCE = 823.0 METERS

LATERAL PLUME MEANDER/BUILDING WAKE CREDIT ALLOWED

AS A FUNCTION OF DOWNWIND DISTANCE.

MEANDER CREDIT IS FOR WINDSPEEDS LESS THAN 6 MPS.

BUILDING WAKE CREDIT ALLOWED: C= 0.5 A= 2584. D= 54.3

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

| | | | | | | | | | |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 1.477E-03 | 9.797E-04 | 5.778E-04 | 4.217E-04 | 2.109E-04 | 1.927E-04 | 1.400E-04 | 1.218E-04 | 8.255E-05 | 7.306E-05 |
| 0.068 | 0.183 | 0.304 | 0.313 | 8.963 | 12.038 | 27.358 | 32.413 | 49.349 | 49.401 |
| 0.00307 | 0.00821 | 0.01363 | 0.01405 | 0.40213 | 0.54007 | 1.22740 | 1.45418 | 2.21398 | 2.21632 |
| 6.389E-05 | 6.024E-05 | 4.576E-05 | 4.078E-05 | 3.869E-05 | 2.686E-05 | 1.903E-05 | 1.871E-05 | 1.815E-05 | 1.142E-05 |
| 66.285 | 70.349 | 72.746 | 73.007 | 82.804 | 86.868 | 88.119 | 88.432 | 88.692 | 89.838 |
| 2.97379 | 3.15614 | 3.26369 | 3.27538 | 3.71489 | 3.89725 | 3.95336 | 3.96738 | 3.97907 | 4.03051 |
| 8.732E-06 | 5.239E-06 | 4.152E-06 | 3.540E-06 | 1.937E-06 | 1.162E-06 | 7.854E-07 | | | |
| 93.174 | 94.633 | 94.841 | 94.997 | 97.811 | 99.844 | 100.000 | | | |
| 4.18013 | 4.24559 | 4.25494 | 4.26196 | 4.38820 | 4.47938 | 4.48639 | | | |

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

| | | | |
|------------------|------------------------------------|-------------|-------|
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(2) = | 1.226 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(3) = | 1.453 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(4) = | 2.971 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(5) = | 3.153 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(6) = | 3.712 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(7) = | 3.894 |

K I XQSAVE(K,I) XQINT(K,I) XQSLOP(K,I)

11 1 -6.51806 -11.88757 -1.33995

Calculation No. PM-1055 Revision 0

Attachment J

Page 1329 of 1411

11 2 -8.87417 -13.61017 -2.10593
 11 3 -9.01335 -13.74251 -2.16656
 11 4 -9.65837 -13.87055 -2.23449
 11 5 -9.71722 -20.89988 -6.01626
 11 6 -10.15982 -39.71434 -16.55554
 11 7 -10.52476 NUMXQ(K) = 7

| | | |
|-----------|-------|--------|
| 5.888E-04 | 0.045 | 1.000 |
| 3.835E-04 | 0.135 | 3.000 |
| 3.099E-04 | 0.224 | 5.000 |
| 2.281E-04 | 0.449 | 10.000 |
| 1.887E-04 | 0.673 | 15.000 |
| 1.640E-04 | 0.897 | 20.000 |
| 1.466E-04 | 1.122 | 25.000 |
| 1.298E-04 | 1.346 | 30.000 |
| 1.140E-04 | 1.570 | 35.000 |
| 1.015E-04 | 1.795 | 40.000 |
| 9.139E-05 | 2.019 | 45.000 |
| 8.309E-05 | 2.243 | 50.000 |
| 7.613E-05 | 2.468 | 55.000 |
| 7.020E-05 | 2.692 | 60.000 |
| 6.509E-05 | 2.916 | 65.000 |
| 6.054E-05 | 3.140 | 70.000 |
| 5.070E-05 | 3.365 | 75.000 |
| 4.253E-05 | 3.589 | 80.000 |
| 3.171E-05 | 3.813 | 85.000 |

| | | |
|-----------|-----|-------|
| 2.170E-04 | 0.5 | 11.14 |
|-----------|-----|-------|

ANNUAL AVERAGE = 3.47E-06

K= 11 FIVEXQ(K) = 2.170E-04 FIVEPR(K) = 11.145

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 01/28/03

Page 1330 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Ground Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 10.1 meters

DELTA-T HEIGHTS: 10.1-45.7 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE ENE SECTOR.

| STABILITY | WINDSPEED | FREQUENCY | DISTANCE | TERRAIN | HT | EFF | PLUME | HT | SIGMA-Y | SIGMA-Z | MEANDER-SY | ** CHI/Q VALUES (SEC/CUBIC METER) | | | |
|-----------|----------------|-----------|----------|---------|--------|--------|--------|--------|---------|-----------|------------|-----------------------------------|------|------|------|
| CLASS | METER/SEC | PERCENT | METERS | METERS | METERS | METERS | METERS | METERS | METERS | METERS | METERS | MEANDER | BLDG | WAKE | USED |
| | AT 10.0 METERS | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| A | 1.6 | 0.24 | 823. | 0. | 0. | 0. | 157.1 | 310.1 | 157.1 | 4.187E-06 | 4.152E-06 | 4.152E-06 | | | |
| A | 3.3 | 1.35 | 823. | 0. | 0. | 0. | 157.1 | 310.1 | 157.1 | 1.954E-06 | 1.937E-06 | 1.937E-06 | | | |
| A | 5.6 | 0.97 | 823. | 0. | 0. | 0. | 157.1 | 310.1 | 157.1 | 1.172E-06 | 1.162E-06 | 1.162E-06 | | | |
| A | 8.2 | 0.03 | 823. | 0. | 0. | 0. | 157.1 | 310.1 | 157.1 | 7.921E-07 | 7.854E-07 | 7.854E-07 | | | |
| B | 1.6 | 0.21 | 823. | 0. | 0. | 0. | 118.1 | 88.8 | 118.1 | 1.945E-05 | 1.871E-05 | 1.871E-05 | | | |
| B | 3.3 | 1.45 | 823. | 0. | 0. | 0. | 118.1 | 88.8 | 118.1 | 9.075E-06 | 8.732E-06 | 8.732E-06 | | | |
| B | 5.6 | 0.83 | 823. | 0. | 0. | 0. | 118.1 | 88.8 | 118.1 | 5.445E-06 | 5.239E-06 | 5.239E-06 | | | |
| C | 1.6 | 0.14 | 823. | 0. | 0. | 0. | 89.7 | 51.2 | 89.7 | 4.443E-05 | 4.078E-05 | 4.078E-05 | | | |
| C | 3.3 | 0.73 | 823. | 0. | 0. | 0. | 89.7 | 51.2 | 89.7 | 2.073E-05 | 1.903E-05 | 1.903E-05 | | | |
| C | 5.6 | 0.76 | 823. | 0. | 0. | 0. | 89.7 | 51.2 | 89.7 | 1.244E-05 | 1.142E-05 | 1.142E-05 | | | |
| D | 0.2 | 0.01 | 823. | 0. | 0. | 0. | 63.2 | 27.1 | 124.7 | 4.217E-04 | 6.716E-04 | 4.217E-04 | | | |
| D | 1.6 | 3.63 | 823. | 0. | 0. | 0. | 63.2 | 27.1 | 124.7 | 6.024E-05 | 9.594E-05 | 6.024E-05 | | | |
| D | 3.3 | 6.04 | 823. | 0. | 0. | 0. | 63.2 | 27.1 | 90.6 | 3.869E-05 | 4.477E-05 | 3.869E-05 | | | |
| D | 5.6 | 2.56 | 823. | 0. | 0. | 0. | 63.2 | 27.1 | 66.1 | 3.183E-05 | 2.686E-05 | 2.686E-05 | | | |
| D | 8.2 | 0.14 | 823. | 0. | 0. | 0. | 63.2 | 27.1 | 63.2 | 2.250E-05 | 1.815E-05 | 1.815E-05 | | | |
| E | 0.2 | 0.10 | 823. | 0. | 0. | 0. | 44.9 | 18.7 | 132.5 | 5.778E-04 | 1.144E-03 | 5.778E-04 | | | |
| E | 1.6 | 13.64 | 823. | 0. | 0. | 0. | 44.9 | 18.7 | 132.5 | 8.255E-05 | 1.634E-04 | 8.255E-05 | | | |
| E | 3.3 | 14.99 | 823. | 0. | 0. | 0. | 44.9 | 18.7 | 79.9 | 6.389E-05 | 7.627E-05 | 6.389E-05 | | | |
| E | 5.6 | 1.76 | 823. | 0. | 0. | 0. | 44.9 | 18.7 | 48.4 | 6.329E-05 | 4.576E-05 | 4.576E-05 | | | |
| F | 0.2 | 0.12 | 823. | 0. | 0. | 0. | 31.0 | 12.0 | 121.7 | 9.797E-04 | 1.827E-03 | 9.797E-04 | | | |
| F | 1.6 | 15.58 | 823. | 0. | 0. | 0. | 31.0 | 12.0 | 121.7 | 1.400E-04 | 2.609E-04 | 1.400E-04 | | | |
| F | 3.3 | 8.70 | 823. | 0. | 0. | 0. | 31.0 | 12.0 | 64.2 | 1.238E-04 | 1.218E-04 | 1.218E-04 | | | |
| F | 5.6 | 0.10 | 823. | 0. | 0. | 0. | 31.0 | 12.0 | 34.1 | 1.400E-04 | 7.306E-05 | 7.306E-05 | | | |
| G | 0.2 | 0.13 | 823. | 0. | 0. | 0. | 21.4 | 7.7 | 125.7 | 1.477E-03 | 2.891E-03 | 1.477E-03 | | | |
| G | 1.6 | 16.99 | 823. | 0. | 0. | 0. | 21.4 | 7.7 | 125.7 | 2.109E-04 | 4.129E-04 | 2.109E-04 | | | |
| G | 3.3 | 8.77 | 823. | 0. | 0. | 0. | 21.4 | 7.7 | 54.9 | 2.255E-04 | 1.927E-04 | 1.927E-04 | | | |
| G | 5.6 | 0.03 | 823. | 0. | 0. | 0. | 21.4 | 7.7 | 24.2 | 3.073E-04 | 1.156E-04 | 1.156E-04 | | | |

CA=1292.SQ.METERS

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1331 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 10.1 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.1 45.7 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

ENE SECTOR BOUNDARY DISTANCE = 823.0 METERS

LATERAL PLUME MEANDER/BUILDING WAKE CREDIT ALLOWED

AS A FUNCTION OF DOWNWIND DISTANCE.

MEANDER CREDIT IS FOR WINDSPEEDS LESS THAN 6 MPS.

BUILDING WAKE CREDIT ALLOWED: C= 0.5 A= 2584. D= 54.3

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

| | | | | | | | | | |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 1.477E-03 | 9.797E-04 | 5.778E-04 | 4.217E-04 | 2.109E-04 | 1.927E-04 | 1.400E-04 | 1.218E-04 | 1.156E-04 | 8.255E-05 |
| 0.135 | 0.251 | 0.348 | 0.357 | 17.349 | 26.122 | 41.699 | 50.403 | 50.437 | 64.080 |
| 0.00910 | 0.01698 | 0.02357 | 0.02414 | 1.17437 | 1.76819 | 2.82256 | 3.41171 | 3.41405 | 4.33750 |
| 7.306E-05 | 6.389E-05 | 6.024E-05 | 4.576E-05 | 4.078E-05 | 3.869E-05 | 2.686E-05 | 1.903E-05 | 1.871E-05 | 1.815E-05 |
| 64.184 | 79.173 | 82.800 | 84.561 | 84.699 | 90.744 | 93.300 | 94.025 | 94.232 | 94.370 |
| 4.34452 | 5.35915 | 5.60463 | 5.72386 | 5.73321 | 6.14234 | 6.31534 | 6.36444 | 6.37846 | 6.38781 |
| 1.142E-05 | 8.732E-06 | 5.239E-06 | 4.152E-06 | 1.937E-06 | 1.162E-06 | 7.854E-07 | | | |
| 95.130 | 96.581 | 97.410 | 97.651 | 98.998 | 99.965 | 100.000 | | | |
| 6.43925 | 6.53744 | 6.59355 | 6.60991 | 6.70109 | 6.76655 | 6.76889 | | | |

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

| CHI/Q | WITH RESPECT TO | WHEN THE WIND BLOWS |
|-----------------|-----------------|-----------------------|
| SEC/CUBIC METER | THE TOTAL TIME | INTO THIS SECTOR ONLY |

| | | | |
|------------------|------------------------------------|------------|-------|
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(2)= | 1.766 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(3)= | 2.820 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(4)= | 3.409 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(5)= | 5.601 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(6)= | 6.138 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(7)= | 6.311 |

| K | I | XQSAVE(K,I) | XQINT(K,I) | XQSLOP(K,I) |
|----|---|-------------|------------|-------------|
| 12 | 1 | -6.51806 | -11.17049 | -1.24305 |

Calculation No. PM-1055 Revision 0**Attachment J****Page 1332 of 1411**

12 2 -8.55435 -11.97717 -1.62634
12 3 -8.87417 -12.03187 -1.65501
12 4 -9.01335 -14.48388 -2.99942
12 5 -9.71722 -25.02701 -9.63368
12 6 -10.15982 -50.07148 -25.86205
12 7 -10.52476 NUMXQ(K) = 7

| | | |
|-----------|-------|--------|
| 7.563E-04 | 0.068 | 1.000 |
| 5.013E-04 | 0.203 | 3.000 |
| 4.082E-04 | 0.338 | 5.000 |
| 3.034E-04 | 0.677 | 10.000 |
| 2.522E-04 | 1.015 | 15.000 |
| 2.199E-04 | 1.354 | 20.000 |
| 1.970E-04 | 1.692 | 25.000 |
| 1.757E-04 | 2.031 | 30.000 |
| 1.582E-04 | 2.369 | 35.000 |
| 1.441E-04 | 2.708 | 40.000 |
| 1.324E-04 | 3.046 | 45.000 |
| 1.225E-04 | 3.384 | 50.000 |
| 1.081E-04 | 3.723 | 55.000 |
| 9.583E-05 | 4.061 | 60.000 |
| 8.562E-05 | 4.400 | 65.000 |
| 7.702E-05 | 4.738 | 70.000 |
| 6.970E-05 | 5.077 | 75.000 |
| 6.339E-05 | 5.415 | 80.000 |
| 5.312E-05 | 5.754 | 85.000 |
| 4.028E-05 | 6.092 | 90.000 |

3.463E-04 0.5 7.39

ANNUAL AVERAGE = 6.49E-06

K= 12 FIVEXQ(K)= 3.463E-04 FIVEPR(K)= 7.387

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1333 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Ground Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 10.1 meters

DELTA-T HEIGHTS: 10.1-45.7 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE E SECTOR.

| STABILITY | WINDSPEED | FREQUENCY | DISTANCE | TERRAIN | HT | EFF | PLUME | HT | SIGMA-Y | SIGMA-Z | MEANDER-SY | ** CHI/Q VALUES (SEC/CUBIC METER) | | |
|----------------|-----------|-----------|----------|---------|--------|--------|--------|--------|-----------|-----------|------------|-----------------------------------|-----------|------|
| CLASS | METER/SEC | PERCENT | METERS | METERS | METERS | METERS | METERS | METERS | METERS | METERS | METERS | MEANDER | BLDG WAKE | USED |
| AT 10.0 METERS | | | | | | | | | | | | CA=1292.SQ.METERS | | |
| A | 1.6 | 0.43 | 823. | 0. | 0. | 157.1 | 310.1 | 157.1 | 4.187E-06 | 4.152E-06 | 4.152E-06 | | | |
| A | 3.3 | 2.64 | 823. | 0. | 0. | 157.1 | 310.1 | 157.1 | 1.954E-06 | 1.937E-06 | 1.937E-06 | | | |
| A | 5.6 | 1.64 | 823. | 0. | 0. | 157.1 | 310.1 | 157.1 | 1.172E-06 | 1.162E-06 | 1.162E-06 | | | |
| A | 8.2 | 0.11 | 823. | 0. | 0. | 157.1 | 310.1 | 157.1 | 7.921E-07 | 7.854E-07 | 7.854E-07 | | | |
| B | 1.6 | 0.43 | 823. | 0. | 0. | 118.1 | 88.8 | 118.1 | 1.945E-05 | 1.871E-05 | 1.871E-05 | | | |
| B | 3.3 | 1.81 | 823. | 0. | 0. | 118.1 | 88.8 | 118.1 | 9.075E-06 | 8.732E-06 | 8.732E-06 | | | |
| B | 5.6 | 1.45 | 823. | 0. | 0. | 118.1 | 88.8 | 118.1 | 5.445E-06 | 5.239E-06 | 5.239E-06 | | | |
| B | 8.2 | 0.06 | 823. | 0. | 0. | 118.1 | 88.8 | 118.1 | 3.679E-06 | 3.540E-06 | 3.540E-06 | | | |
| C | 1.6 | 0.17 | 823. | 0. | 0. | 89.7 | 51.2 | 89.7 | 4.443E-05 | 4.078E-05 | 4.078E-05 | | | |
| C | 3.3 | 1.19 | 823. | 0. | 0. | 89.7 | 51.2 | 89.7 | 2.073E-05 | 1.903E-05 | 1.903E-05 | | | |
| C | 5.6 | 0.99 | 823. | 0. | 0. | 89.7 | 51.2 | 89.7 | 1.244E-05 | 1.142E-05 | 1.142E-05 | | | |
| C | 8.2 | 0.09 | 823. | 0. | 0. | 89.7 | 51.2 | 89.7 | 8.406E-06 | 7.714E-06 | 7.714E-06 | | | |
| D | 0.2 | 0.01 | 823. | 0. | 0. | 63.2 | 27.1 | 124.7 | 4.217E-04 | 6.716E-04 | 4.217E-04 | | | |
| D | 1.6 | 3.46 | 823. | 0. | 0. | 63.2 | 27.1 | 124.7 | 6.024E-05 | 9.594E-05 | 6.024E-05 | | | |
| D | 3.3 | 8.42 | 823. | 0. | 0. | 63.2 | 27.1 | 90.6 | 3.869E-05 | 4.477E-05 | 3.869E-05 | | | |
| D | 5.6 | 6.06 | 823. | 0. | 0. | 63.2 | 27.1 | 66.1 | 3.183E-05 | 2.686E-05 | 2.686E-05 | | | |
| D | 8.2 | 1.22 | 823. | 0. | 0. | 63.2 | 27.1 | 63.2 | 2.250E-05 | 1.815E-05 | 1.815E-05 | | | |
| E | 0.2 | 0.09 | 823. | 0. | 0. | 44.9 | 18.7 | 132.5 | 5.778E-04 | 1.144E-03 | 5.778E-04 | | | |
| E | 1.6 | 12.70 | 823. | 0. | 0. | 44.9 | 18.7 | 132.5 | 8.255E-05 | 1.634E-04 | 8.255E-05 | | | |
| E | 3.3 | 18.93 | 823. | 0. | 0. | 44.9 | 18.7 | 79.9 | 6.389E-05 | 7.627E-05 | 6.389E-05 | | | |
| E | 5.6 | 3.49 | 823. | 0. | 0. | 44.9 | 18.7 | 48.4 | 6.329E-05 | 4.576E-05 | 4.576E-05 | | | |
| E | 8.2 | 0.17 | 823. | 0. | 0. | 44.9 | 18.7 | 44.9 | 4.606E-05 | 3.092E-05 | 3.092E-05 | | | |
| F | 0.2 | 0.11 | 823. | 0. | 0. | 31.0 | 12.0 | 121.7 | 9.797E-04 | 1.827E-03 | 9.797E-04 | | | |
| F | 1.6 | 14.17 | 823. | 0. | 0. | 31.0 | 12.0 | 121.7 | 1.400E-04 | 2.609E-04 | 1.400E-04 | | | |
| F | 3.3 | 6.04 | 823. | 0. | 0. | 31.0 | 12.0 | 64.2 | 1.238E-04 | 1.218E-04 | 1.218E-04 | | | |
| G | 0.2 | 0.10 | 823. | 0. | 0. | 21.4 | 7.7 | 125.7 | 1.477E-03 | 2.891E-03 | 1.477E-03 | | | |
| G | 1.6 | 12.04 | 823. | 0. | 0. | 21.4 | 7.7 | 125.7 | 2.109E-04 | 4.129E-04 | 2.109E-04 | | | |
| G | 3.3 | 2.01 | 823. | 0. | 0. | 21.4 | 7.7 | 54.9 | 2.255E-04 | 1.927E-04 | 1.927E-04 | | | |

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1334 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 10.1 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.1-45.7 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

E SECTOR BOUNDARY DISTANCE = 823.0 METERS

LATERAL PLUME MEANDER/BUILDING WAKE CREDIT ALLOWED

AS A FUNCTION OF DOWNWIND DISTANCE.

MEANDER CREDIT IS FOR WINDSPEEDS LESS THAN 6 MPS.

BUILDING WAKE CREDIT ALLOWED: C= 0.5 A= 2584. D= 54.3

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

| | | | | | | | | | |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 1.477E-03 | 9.797E-04 | 5.778E-04 | 4.217E-04 | 2.109E-04 | 1.927E-04 | 1.400E-04 | 1.218E-04 | 8.255E-05 | 6.389E-05 |
| 0.095 | 0.201 | 0.292 | 0.300 | 12.344 | 14.356 | 28.526 | 34.563 | 47.259 | 66.190 |
| 0.00786 | 0.01660 | 0.02407 | 0.02473 | 1.01832 | 1.18431 | 2.35324 | 2.85121 | 3.89858 | 5.46027 |
| 6.024E-05 | 4.576E-05 | 4.078E-05 | 3.869E-05 | 3.092E-05 | 2.686E-05 | 1.903E-05 | 1.871E-05 | 1.815E-05 | 1.142E-05 |
| 69.648 | 73.134 | 73.304 | 81.721 | 81.891 | 87.955 | 89.146 | 89.571 | 90.789 | 91.781 |
| 5.74549 | 6.03305 | 6.04708 | 6.74143 | 6.75545 | 7.25576 | 7.35395 | 7.38902 | 7.48954 | 7.57137 |
| 8.732E-06 | 7.714E-06 | 5.239E-06 | 4.152E-06 | 3.540E-06 | 1.937E-06 | 1.162E-06 | 7.854E-07 | | |
| 93.595 | 93.680 | 95.126 | 95.551 | 95.607 | 98.243 | 99.887 | 100.000 | | |
| 7.72099 | 7.72801 | 7.84724 | 7.88231 | 7.88698 | 8.10440 | 8.24000 | 8.24935 | | |

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

| CHI/Q | WITH RESPECT TO | WHEN THE WIND BLOWS |
|-----------------|-----------------|-----------------------|
| SEC/CUBIC METER | THE TOTAL TIME | INTO THIS SECTOR ONLY |

| | | | |
|------------------|------------------------------------|------------|-------|
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(2)= | 2.351 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(3)= | 2.848 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(4)= | 5.456 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(5)= | 5.742 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(6)= | 6.738 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(7)= | 7.252 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(8)= | 7.486 |

K I XQSAVE(K,I) XQINT(K,I) XQSLOP(K,I)

Calculation No. PM-1055 Revision 0

Attachment J

Page 1335 of 1411

| | | | | |
|----|---|-----------|--------------|-----------|
| 13 | 1 | -6.51806 | -11.48381 | -1.31392 |
| 13 | 2 | -8.87417 | -12.22066 | -1.68491 |
| 13 | 3 | -9.01335 | -13.08667 | -2.13986 |
| 13 | 4 | -9.65837 | -13.38812 | -2.32802 |
| 13 | 5 | -9.71722 | -18.31104 | -5.45004 |
| 13 | 6 | -10.15982 | -24.39482 | -9.51776 |
| 13 | 7 | -10.52476 | -44.64853 | -23.41603 |
| 13 | 8 | -10.91680 | NUMXQ(K) = 8 | |

| | | |
|-----------|-------|--------|
| 6.435E-04 | 0.082 | 1.000 |
| 4.135E-04 | 0.247 | 3.000 |
| 3.314E-04 | 0.412 | 5.000 |
| 2.405E-04 | 0.825 | 10.000 |
| 1.968E-04 | 1.237 | 15.000 |
| 1.696E-04 | 1.650 | 20.000 |
| 1.505E-04 | 2.062 | 25.000 |
| 1.350E-04 | 2.475 | 30.000 |
| 1.203E-04 | 2.887 | 35.000 |
| 1.060E-04 | 3.300 | 40.000 |
| 9.459E-05 | 3.712 | 45.000 |
| 8.523E-05 | 4.125 | 50.000 |
| 7.742E-05 | 4.537 | 55.000 |
| 7.080E-05 | 4.950 | 60.000 |
| 6.512E-05 | 5.362 | 65.000 |
| 5.942E-05 | 5.775 | 70.000 |
| 4.917E-05 | 6.187 | 75.000 |
| 4.108E-05 | 6.599 | 80.000 |
| 3.185E-05 | 7.012 | 85.000 |
| 2.023E-05 | 7.424 | 90.000 |
| 3.039E-04 | 0.5 | 6.06 |

ANNUAL AVERAGE = 6.50E-06

K= 13 FIVEXQ(K)= 3.039E-04 FIVEPR(K)= 6.061

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1336 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Ground Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 10.1 meters

DELTA-T HEIGHTS: 10.1 45.7 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE ESE SECTOR.

| STABILITY | WINDSPEED | FREQUENCY | DISTANCE | TERRAIN | HT | EFF | PLUME | HT | SIGMA-Y | SIGMA-Z | MEANDER-SY | ** CHI/Q VALUES (SEC/CUBIC METER) | | |
|----------------|-----------|-----------|----------|---------|--------|--------|--------|--------|-----------|-----------|------------|-----------------------------------|-----------|------|
| CLASS | METER/SEC | PERCENT | METERS | METERS | METERS | METERS | METERS | METERS | METERS | METERS | METERS | MEANDER | BLDG WAKE | USED |
| AT 10.0 METERS | | | | | | | | | | | | CA=1292.SQ.METERS | | |
| A | 1.6 | 0.39 | 823. | 0. | 0. | 157.1 | 310.1 | 157.1 | 4.187E-06 | 4.152E-06 | 4.152E-06 | | | |
| A | 3.3 | 2.50 | 823. | 0. | 0. | 157.1 | 310.1 | 157.1 | 1.954E-06 | 1.937E-06 | 1.937E-06 | | | |
| A | 5.6 | 0.87 | 823. | 0. | 0. | 157.1 | 310.1 | 157.1 | 1.172E-06 | 1.162E-06 | 1.162E-06 | | | |
| A | 8.2 | 0.19 | 823. | 0. | 0. | 157.1 | 310.1 | 157.1 | 7.921E-07 | 7.854E-07 | 7.854E-07 | | | |
| B | 1.6 | 0.29 | 823. | 0. | 0. | 118.1 | 88.8 | 118.1 | 1.945E-05 | 1.871E-05 | 1.871E-05 | | | |
| B | 3.3 | 1.71 | 823. | 0. | 0. | 118.1 | 88.8 | 118.1 | 9.075E-06 | 8.732E-06 | 8.732E-06 | | | |
| B | 5.6 | 1.71 | 823. | 0. | 0. | 118.1 | 88.8 | 118.1 | 5.445E-06 | 5.239E-06 | 5.239E-06 | | | |
| B | 8.2 | 0.39 | 823. | 0. | 0. | 118.1 | 88.8 | 118.1 | 3.679E-06 | 3.540E-06 | 3.540E-06 | | | |
| B | 10.7 | 0.02 | 823. | 0. | 0. | 118.1 | 88.8 | 118.1 | 2.836E-06 | 2.729E-06 | 2.729E-06 | | | |
| C | 1.6 | 0.17 | 823. | 0. | 0. | 89.7 | 51.2 | 89.7 | 4.443E-05 | 4.078E-05 | 4.078E-05 | | | |
| C | 3.3 | 0.89 | 823. | 0. | 0. | 89.7 | 51.2 | 89.7 | 2.073E-05 | 1.903E-05 | 1.903E-05 | | | |
| C | 5.6 | 1.28 | 823. | 0. | 0. | 89.7 | 51.2 | 89.7 | 1.244E-05 | 1.142E-05 | 1.142E-05 | | | |
| C | 8.2 | 0.29 | 823. | 0. | 0. | 89.7 | 51.2 | 89.7 | 8.406E-06 | 7.714E-06 | 7.714E-06 | | | |
| D | 0.2 | 0.01 | 823. | 0. | 0. | 63.2 | 27.1 | 124.7 | 4.217E-04 | 6.716E-04 | 4.217E-04 | | | |
| D | 1.6 | 3.08 | 823. | 0. | 0. | 63.2 | 27.1 | 124.7 | 6.024E-05 | 9.594E-05 | 6.024E-05 | | | |
| D | 3.3 | 10.41 | 823. | 0. | 0. | 63.2 | 27.1 | 90.6 | 3.869E-05 | 4.477E-05 | 3.869E-05 | | | |
| D | 5.6 | 13.85 | 823. | 0. | 0. | 63.2 | 27.1 | 66.1 | 3.183E-05 | 2.686E-05 | 2.686E-05 | | | |
| D | 8.2 | 1.37 | 823. | 0. | 0. | 63.2 | 27.1 | 63.2 | 2.250E-05 | 1.815E-05 | 1.815E-05 | | | |
| D | 10.7 | 0.02 | 823. | 0. | 0. | 63.2 | 27.1 | 63.2 | 1.735E-05 | 1.399E-05 | 1.399E-05 | | | |
| E | 0.2 | 0.09 | 823. | 0. | 0. | 44.9 | 18.7 | 132.5 | 5.778E-04 | 1.144E-03 | 5.778E-04 | | | |
| E | 1.6 | 11.99 | 823. | 0. | 0. | 44.9 | 18.7 | 132.5 | 8.255E-05 | 1.634E-04 | 8.255E-05 | | | |
| E | 3.3 | 24.18 | 823. | 0. | 0. | 44.9 | 18.7 | 79.9 | 6.389E-05 | 7.627E-05 | 6.389E-05 | | | |
| E | 5.6 | 4.65 | 823. | 0. | 0. | 44.9 | 18.7 | 48.4 | 6.329E-05 | 4.576E-05 | 4.576E-05 | | | |
| E | 8.2 | 0.19 | 823. | 0. | 0. | 44.9 | 18.7 | 44.9 | 4.606E-05 | 3.092E-05 | 3.092E-05 | | | |
| F | 0.2 | 0.07 | 823. | 0. | 0. | 31.0 | 12.0 | 121.7 | 9.797E-04 | 1.827E-03 | 9.797E-04 | | | |
| F | 1.6 | 10.02 | 823. | 0. | 0. | 31.0 | 12.0 | 121.7 | 1.400E-04 | 2.609E-04 | 1.400E-04 | | | |
| F | 3.3 | 3.28 | 823. | 0. | 0. | 31.0 | 12.0 | 64.2 | 1.238E-04 | 1.218E-04 | 1.218E-04 | | | |
| F | 5.6 | 0.02 | 823. | 0. | 0. | 31.0 | 12.0 | 34.1 | 1.400E-04 | 7.306E-05 | 7.306E-05 | | | |
| G | 0.2 | 0.04 | 823. | 0. | 0. | 21.4 | 7.7 | 125.7 | 1.477E-03 | 2.891E-03 | 1.477E-03 | | | |
| G | 1.6 | 5.64 | 823. | 0. | 0. | 21.4 | 7.7 | 125.7 | 2.109E-04 | 4.129E-04 | 2.109E-04 | | | |
| G | 3.3 | 0.39 | 823. | 0. | 0. | 21.4 | 7.7 | 54.9 | 2.255E-04 | 1.927E-04 | 1.927E-04 | | | |

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J**Page 1337 of 1411**

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 10.1 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.1-45.7 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

ESE SECTOR BOUNDARY DISTANCE = 823.0 METERS

LATERAL PLUME MEANDER/BUILDING WAKE CREDIT ALLOWED

AS A FUNCTION OF DOWNWIND DISTANCE.

MEANDER CREDIT IS FOR WINDSPEEDS LESS THAN 6 MPS.

BUILDING WAKE CREDIT ALLOWED: C= 0.5 A= 2584. D= 54.3

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

| | | | | | | | | | |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 1.477E-03 | 9.797E-04 | 5.778E-04 | 4.217E-04 | 2.109E-04 | 1.927E-04 | 1.400E-04 | 1.218E-04 | 8.255E-05 | 7.306E-05 |
| 0.045 | 0.119 | 0.205 | 0.212 | 5.848 | 6.234 | 16.253 | 19.529 | 31.524 | 31.548 |
| 0.00433 | 0.01160 | 0.01990 | 0.02059 | 0.56765 | 0.60506 | 1.57761 | 1.89556 | 3.05982 | 3.06216 |
| 6.389E-05 | 6.024E-05 | 4.576E-05 | 4.078E-05 | 3.869E-05 | 3.092E-05 | 2.686E-05 | 1.903E-05 | 1.871E-05 | 1.815E-05 |
| 55.730 | 58.813 | 63.462 | 63.630 | 74.035 | 74.228 | 88.077 | 88.969 | 89.258 | 90.631 |
| 5.40938 | 5.70863 | 6.15983 | 6.17620 | 7.18616 | 7.20486 | 8.54914 | 8.63564 | 8.66369 | 8.79695 |
| 1.399E-05 | 1.142E-05 | 8.732E-06 | 7.714E-06 | 5.239E-06 | 4.152E-06 | 3.540E-06 | 2.729E-06 | 1.937E-06 | 1.162E-06 |
| 90.655 | 91.931 | 93.641 | 93.930 | 95.640 | 96.026 | 96.411 | 96.435 | 98.940 | 99.807 |
| 8.79929 | 8.92319 | 9.08918 | 9.11724 | 9.28323 | 9.32063 | 9.35804 | 9.36038 | 9.60352 | 9.68768 |
| 7.854E-07 | | | | | | | | | |
| 100.000 | | | | | | | | | |
| 9.70638 | | | | | | | | | |

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

| CHI/Q | WITH RESPECT TO | WHEN THE WIND BLOWS |
|-----------------|-----------------|-----------------------|
| SEC/CUBIC METER | THE TOTAL TIME | INTO THIS SECTOR ONLY |

| | | | |
|------------------|------------------------------------|-------------|-------|
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(2) = | 1.576 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(3) = | 5.406 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(4) = | 5.705 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(5) = | 7.182 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(6) = | 8.546 |

Calculation No. PM-1055 Revision 0

Attachment J

Page 1338 of 1411

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(7) = 8.793

| K | I | XQSAVE(K,I) | XQINT(K,I) | XQSLOP(K,I) |
|----|---|-------------|--------------|-------------|
| 14 | 1 | -6.51806 | -11.72884 | -1.32745 |
| 14 | 2 | -8.87417 | -11.97563 | -1.44222 |
| 14 | 3 | -9.65837 | -13.20141 | -2.20511 |
| 14 | 4 | -9.71722 | -15.65874 | -3.76034 |
| 14 | 5 | -10.15982 | -15.89438 | -3.92148 |
| 14 | 6 | -10.52476 | -44.72396 | -24.97599 |
| 14 | 7 | -10.91680 | NUMXQ(K) = 7 | |
| | | 4.932E-04 | 0.097 | 1.000 |
| | | 3.135E-04 | 0.291 | 3.000 |
| | | 2.497E-04 | 0.485 | 5.000 |
| | | 1.795E-04 | 0.971 | 10.000 |
| | | 1.460E-04 | 1.456 | 15.000 |
| | | 1.240E-04 | 1.941 | 20.000 |
| | | 1.084E-04 | 2.427 | 25.000 |
| | | 9.673E-05 | 2.912 | 30.000 |
| | | 8.762E-05 | 3.397 | 35.000 |
| | | 8.026E-05 | 3.883 | 40.000 |
| | | 7.414E-05 | 4.368 | 45.000 |
| | | 6.895E-05 | 4.853 | 50.000 |
| | | 6.449E-05 | 5.339 | 55.000 |
| | | 5.802E-05 | 5.824 | 60.000 |
| | | 4.984E-05 | 6.309 | 65.000 |
| | | 4.319E-05 | 6.794 | 70.000 |
| | | 3.768E-05 | 7.280 | 75.000 |
| | | 3.294E-05 | 7.765 | 80.000 |
| | | 2.898E-05 | 8.250 | 85.000 |
| | | 1.998E-05 | 8.736 | 90.000 |
| | | 2.463E-04 | 0.5 | 5.15 |

ANNUAL AVERAGE = 5.73E-06

K= 14 FIVEXQ(K) = 2.463E-04 FIVEPR(K) = 5.151

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 01/28/03

Page 1339 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Ground Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 10.1 meters

DELTA-T HEIGHTS: 10.1-45.7 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE SE SECTOR.

| STABILITY | WINDSPEED | FREQUENCY | DISTANCE | TERRAIN | HT | EFF | PLUME | HT | SIGMA-Y | SIGMA-Z | MEANDER-SY | ** CHI/Q VALUES (SEC/CUBIC METER) | | |
|----------------|-----------|-----------|----------|---------|--------|--------|--------|--------|---------|-----------|------------|-----------------------------------|-----------|------|
| CLASS | METER/SEC | PERCENT | METERS | METERS | METERS | METERS | METERS | METERS | METERS | METERS | METERS | MEANDER | BLDG WAKE | USED |
| AT 10.0 METERS | | | | | | | | | | | | CA=1292.SQ.METERS | | |
| A | 1.6 | 0.49 | 823. | 0. | 0. | 0. | 157.1 | 310.1 | 157.1 | 4.187E-06 | 4.152E-06 | 4.152E-06 | | |
| A | 3.3 | 1.58 | 823. | 0. | 0. | 0. | 157.1 | 310.1 | 157.1 | 1.954E-06 | 1.937E-06 | 1.937E-06 | | |
| A | 5.6 | 0.51 | 823. | 0. | 0. | 0. | 157.1 | 310.1 | 157.1 | 1.172E-06 | 1.162E-06 | 1.162E-06 | | |
| A | 8.2 | 0.06 | 823. | 0. | 0. | 0. | 157.1 | 310.1 | 157.1 | 7.921E-07 | 7.854E-07 | 7.854E-07 | | |
| B | 1.6 | 0.18 | 823. | 0. | 0. | 0. | 118.1 | 88.8 | 118.1 | 1.945E-05 | 1.871E-05 | 1.871E-05 | | |
| B | 3.3 | 1.40 | 823. | 0. | 0. | 0. | 118.1 | 88.8 | 118.1 | 9.075E-06 | 8.732E-06 | 8.732E-06 | | |
| B | 5.6 | 1.83 | 823. | 0. | 0. | 0. | 118.1 | 88.8 | 118.1 | 5.445E-06 | 5.239E-06 | 5.239E-06 | | |
| B | 8.2 | 0.43 | 823. | 0. | 0. | 0. | 118.1 | 88.8 | 118.1 | 3.679E-06 | 3.540E-06 | 3.540E-06 | | |
| C | 1.6 | 0.18 | 823. | 0. | 0. | 0. | 89.7 | 51.2 | 89.7 | 4.443E-05 | 4.078E-05 | 4.078E-05 | | |
| C | 3.3 | 0.94 | 823. | 0. | 0. | 0. | 89.7 | 51.2 | 89.7 | 2.073E-05 | 1.903E-05 | 1.903E-05 | | |
| C | 5.6 | 1.64 | 823. | 0. | 0. | 0. | 89.7 | 51.2 | 89.7 | 1.244E-05 | 1.142E-05 | 1.142E-05 | | |
| C | 8.2 | 0.41 | 823. | 0. | 0. | 0. | 89.7 | 51.2 | 89.7 | 8.406E-06 | 7.714E-06 | 7.714E-06 | | |
| D | 0.2 | 0.01 | 823. | 0. | 0. | 0. | 63.2 | 27.1 | 124.7 | 4.217E-04 | 6.716E-04 | 4.217E-04 | | |
| D | 1.6 | 3.94 | 823. | 0. | 0. | 0. | 63.2 | 27.1 | 124.7 | 6.024E-05 | 9.594E-05 | 6.024E-05 | | |
| D | 3.3 | 15.18 | 823. | 0. | 0. | 0. | 63.2 | 27.1 | 90.6 | 3.869E-05 | 4.477E-05 | 3.869E-05 | | |
| D | 5.6 | 18.92 | 823. | 0. | 0. | 0. | 63.2 | 27.1 | 66.1 | 3.183E-05 | 2.686E-05 | 2.686E-05 | | |
| D | 8.2 | 3.47 | 823. | 0. | 0. | 0. | 63.2 | 27.1 | 63.2 | 2.250E-05 | 1.815E-05 | 1.815E-05 | | |
| E | 0.2 | 0.09 | 823. | 0. | 0. | 0. | 44.9 | 18.7 | 132.5 | 5.778E-04 | 1.144E-03 | 5.778E-04 | | |
| E | 1.6 | 12.49 | 823. | 0. | 0. | 0. | 44.9 | 18.7 | 132.5 | 8.255E-05 | 1.634E-04 | 8.255E-05 | | |
| E | 3.3 | 19.45 | 823. | 0. | 0. | 0. | 44.9 | 18.7 | 79.9 | 6.389E-05 | 7.627E-05 | 6.389E-05 | | |
| E | 5.6 | 5.27 | 823. | 0. | 0. | 0. | 44.9 | 18.7 | 48.4 | 6.329E-05 | 4.576E-05 | 4.576E-05 | | |
| E | 8.2 | 0.18 | 823. | 0. | 0. | 0. | 44.9 | 18.7 | 44.9 | 4.606E-05 | 3.092E-05 | 3.092E-05 | | |
| F | 0.2 | 0.05 | 823. | 0. | 0. | 0. | 31.0 | 12.0 | 121.7 | 9.797E-04 | 1.827E-03 | 9.797E-04 | | |
| F | 1.6 | 6.79 | 823. | 0. | 0. | 0. | 31.0 | 12.0 | 121.7 | 1.400E-04 | 2.609E-04 | 1.400E-04 | | |
| F | 3.3 | 1.87 | 823. | 0. | 0. | 0. | 31.0 | 12.0 | 64.2 | 1.238E-04 | 1.218E-04 | 1.218E-04 | | |
| F | 5.6 | 0.02 | 823. | 0. | 0. | 0. | 31.0 | 12.0 | 34.1 | 1.400E-04 | 7.306E-05 | 7.306E-05 | | |
| G | 0.2 | 0.02 | 823. | 0. | 0. | 0. | 21.4 | 7.7 | 125.7 | 1.477E-03 | 2.891E-03 | 1.477E-03 | | |
| G | 1.6 | 2.44 | 823. | 0. | 0. | 0. | 21.4 | 7.7 | 125.7 | 2.109E-04 | 4.129E-04 | 2.109E-04 | | |
| G | 3.3 | 0.14 | 823. | 0. | 0. | 0. | 21.4 | 7.7 | 54.9 | 2.255E-04 | 1.927E-04 | 1.927E-04 | | |

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1340 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Ground Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 10.1 meters

DELTA-T HEIGHTS: 10.1-45.7 meters

SITE EXCLUSION BOUNDARY CALCULATIONS:

SE SECTOR BOUNDARY DISTANCE = 823.0 METERS

LATERAL PLUME MEANDER/BUILDING WAKE CREDIT ALLOWED

AS A FUNCTION OF DOWNWIND DISTANCE.

MEANDER CREDIT IS FOR WINDSPEEDS LESS THAN 6 MPS.

BUILDING WAKE CREDIT ALLOWED: C= 0.5 A= 2584. D= 54.3

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

| | | | | | | | | | |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 1.477E-03 | 9.797E-04 | 5.778E-04 | 4.217E-04 | 2.109E-04 | 1.927E-04 | 1.400E-04 | 1.218E-04 | 8.255E-05 | 7.306E-05 |
| 0.019 | 0.070 | 0.159 | 0.168 | 2.610 | 2.753 | 9.544 | 11.411 | 23.905 | 23.926 |
| 0.00220 | 0.00798 | 0.01814 | 0.01918 | 0.29738 | 0.31375 | 1.08758 | 1.30033 | 2.72409 | 2.72643 |
| 6.389E-05 | 6.024E-05 | 4.576E-05 | 4.078E-05 | 3.869E-05 | 3.092E-05 | 2.686E-05 | 1.903E-05 | 1.871E-05 | 1.815E-05 |
| 43.375 | 47.314 | 52.587 | 52.772 | 67.954 | 68.138 | 87.054 | 87.998 | 88.183 | 91.650 |
| 4.94273 | 5.39160 | 5.99243 | 6.01347 | 7.74349 | 7.76453 | 9.92005 | 10.02759 | 10.04863 | 10.44373 |
| 1.142E-05 | 8.732E-06 | 7.714E-06 | 5.239E-06 | 4.152E-06 | 3.540E-06 | 1.937E-06 | 1.162E-06 | 7.854E-07 | |
| 93.291 | 94.686 | 95.097 | 96.923 | 97.415 | 97.846 | 99.426 | 99.938 | 100.000 | |
| 10.63076 | 10.78974 | 10.83649 | 11.04456 | 11.10067 | 11.14977 | 11.32978 | 11.38823 | 11.39524 | |

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

| | | | |
|------------------|------------------------------------|------------|-------|
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(2)= | 1.086 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(3)= | 4.939 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(4)= | 5.388 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(5)= | 7.740 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(6)= | 9.917 |

| K | I | XQSAVE(K,I) | XQINT(K,I) | XQSLOP(K,I) |
|----|---|-------------|------------|-------------|
| 15 | 1 | -6.51806 | -11.89504 | -1.31622 |
| 15 | 2 | -8.87417 | -11.66752 | -1.21708 |

Calculation No. PM-1055 Revision 0

Attachment J

Page 1341 of 1411

| | | | | |
|----|-----------|-----------|--------------|----------|
| 15 | 3 | -9.65837 | -11.94803 | -1.38701 |
| 15 | 4 | -9.71722 | -13.55345 | -2.38518 |
| 15 | 5 | -10.15982 | -13.96383 | -2.67361 |
| 15 | 6 | -10.52476 | NUMXQ(K) = 6 | |
| | 3.788E-04 | 0.114 | | 1.000 |
| | 2.401E-04 | 0.342 | | 3.000 |
| | 1.909E-04 | 0.570 | | 5.000 |
| | 1.370E-04 | 1.140 | | 10.000 |
| | 1.129E-04 | 1.709 | | 15.000 |
| | 9.769E-05 | 2.279 | | 20.000 |
| | 8.694E-05 | 2.849 | | 25.000 |
| | 7.878E-05 | 3.419 | | 30.000 |
| | 7.230E-05 | 3.988 | | 35.000 |
| | 6.698E-05 | 4.558 | | 40.000 |
| | 6.233E-05 | 5.128 | | 45.000 |
| | 5.643E-05 | 5.698 | | 50.000 |
| | 5.033E-05 | 6.267 | | 55.000 |
| | 4.524E-05 | 6.837 | | 60.000 |
| | 4.094E-05 | 7.407 | | 65.000 |
| | 3.708E-05 | 7.977 | | 70.000 |
| | 3.355E-05 | 8.546 | | 75.000 |
| | 3.050E-05 | 9.116 | | 80.000 |
| | 2.785E-05 | 9.686 | | 85.000 |
| | 2.026E-04 | 0.5 | | 4.39 |

ANNUAL AVERAGE = 5.54E-06

K= 15 FIVEXQ(K)= 2.026E-04 FIVEPR(K)= 4.388

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1342 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Ground Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met. data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 10.1 meters

DELTA-T HEIGHTS: 10.1-45.7 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE SSE SECTOR.

| STABILITY CLASS | WINDSPEED
METER/SEC
AT 10.0 METERS | FREQUENCY
PERCENT | DISTANCE
METERS | TERRAIN
METERS | HT EFF
METERS | PLUME HT
METERS | SIGMA-Y
METERS | SIGMA-Z
METERS | MEANDER-SY
METERS | ** CHI/Q VALUES (SEC/CUBIC METER) | | |
|-----------------|--|----------------------|--------------------|-------------------|------------------|--------------------|-------------------|-------------------|----------------------|-----------------------------------|-----------|-----------|
| | | | | | | | | | | MEANDER | BLDG WAKE | USED |
| | | | | | | | | | | CA=1292.SQ.METERS | | |
| A | 1.6 | 0.84 | 823. | 0. | 0. | 0. | 157.1 | 310.1 | 157.1 | 4.187E-06 | 4.152E-06 | 4.152E-06 |
| A | 3.3 | 4.22 | 823. | 0. | 0. | 0. | 157.1 | 310.1 | 157.1 | 1.954E-06 | 1.937E-06 | 1.937E-06 |
| A | 5.6 | 1.88 | 823. | 0. | 0. | 0. | 157.1 | 310.1 | 157.1 | 1.172E-06 | 1.162E-06 | 1.162E-06 |
| A | 8.2 | 0.02 | 823. | 0. | 0. | 0. | 157.1 | 310.1 | 157.1 | 7.921E-07 | 7.854E-07 | 7.854E-07 |
| B | 1.6 | 0.79 | 823. | 0. | 0. | 0. | 118.1 | 88.8 | 118.1 | 1.945E-05 | 1.871E-05 | 1.871E-05 |
| B | 3.3 | 3.47 | 823. | 0. | 0. | 0. | 118.1 | 88.8 | 118.1 | 9.075E-06 | 8.732E-06 | 8.732E-06 |
| B | 5.6 | 3.51 | 823. | 0. | 0. | 0. | 118.1 | 88.8 | 118.1 | 5.445E-06 | 5.239E-06 | 5.239E-06 |
| B | 8.2 | 0.19 | 823. | 0. | 0. | 0. | 118.1 | 88.8 | 118.1 | 3.679E-06 | 3.540E-06 | 3.540E-06 |
| C | 1.6 | 0.69 | 823. | 0. | 0. | 0. | 89.7 | 51.2 | 89.7 | 4.443E-05 | 4.078E-05 | 4.078E-05 |
| C | 3.3 | 2.61 | 823. | 0. | 0. | 0. | 89.7 | 51.2 | 89.7 | 2.073E-05 | 1.903E-05 | 1.903E-05 |
| C | 5.6 | 2.61 | 823. | 0. | 0. | 0. | 89.7 | 51.2 | 89.7 | 1.244E-05 | 1.142E-05 | 1.142E-05 |
| C | 8.2 | 0.33 | 823. | 0. | 0. | 0. | 89.7 | 51.2 | 89.7 | 8.406E-06 | 7.714E-06 | 7.714E-06 |
| D | 0.2 | 0.01 | 823. | 0. | 0. | 0. | 63.2 | 27.1 | 124.7 | 4.217E-04 | 6.716E-04 | 4.217E-04 |
| D | 1.6 | 4.97 | 823. | 0. | 0. | 0. | 63.2 | 27.1 | 124.7 | 6.024E-05 | 9.594E-05 | 6.024E-05 |
| D | 3.3 | 19.27 | 823. | 0. | 0. | 0. | 63.2 | 27.1 | 90.6 | 3.869E-05 | 4.477E-05 | 3.869E-05 |
| D | 5.6 | 16.55 | 823. | 0. | 0. | 0. | 63.2 | 27.1 | 66.1 | 3.183E-05 | 2.686E-05 | 2.686E-05 |
| D | 8.2 | 2.76 | 823. | 0. | 0. | 0. | 63.2 | 27.1 | 63.2 | 2.250E-05 | 1.815E-05 | 1.815E-05 |
| D | 24.5 | 0.06 | 823. | 0. | 0. | 0. | 63.2 | 27.1 | 63.2 | 7.570E-06 | 6.105E-06 | 6.105E-06 |
| E | 0.2 | 0.06 | 823. | 0. | 0. | 0. | 44.9 | 18.7 | 132.5 | 5.778E-04 | 1.144E-03 | 5.778E-04 |
| E | 1.6 | 8.92 | 823. | 0. | 0. | 0. | 44.9 | 18.7 | 132.5 | 8.255E-05 | 1.634E-04 | 8.255E-05 |
| E | 3.3 | 15.90 | 823. | 0. | 0. | 0. | 44.9 | 18.7 | 79.9 | 6.389E-05 | 7.627E-05 | 6.389E-05 |
| E | 5.6 | 4.41 | 823. | 0. | 0. | 0. | 44.9 | 18.7 | 48.4 | 6.329E-05 | 4.576E-05 | 4.576E-05 |
| E | 8.2 | 0.21 | 823. | 0. | 0. | 0. | 44.9 | 18.7 | 44.9 | 4.606E-05 | 3.092E-05 | 3.092E-05 |
| E | 10.7 | 0.02 | 823. | 0. | 0. | 0. | 44.9 | 18.7 | 44.9 | 3.551E-05 | 2.383E-05 | 2.383E-05 |
| E | 24.5 | 0.13 | 823. | 0. | 0. | 0. | 44.9 | 18.7 | 44.9 | 1.549E-05 | 1.040E-05 | 1.040E-05 |
| F | 0.2 | 0.03 | 823. | 0. | 0. | 0. | 31.0 | 12.0 | 121.7 | 9.797E-04 | 1.827E-03 | 9.797E-04 |
| F | 1.6 | 3.39 | 823. | 0. | 0. | 0. | 31.0 | 12.0 | 121.7 | 1.400E-04 | 2.609E-04 | 1.400E-04 |
| F | 3.3 | 0.79 | 823. | 0. | 0. | 0. | 31.0 | 12.0 | 64.2 | 1.238E-04 | 1.218E-04 | 1.218E-04 |
| F | 5.6 | 0.04 | 823. | 0. | 0. | 0. | 31.0 | 12.0 | 34.1 | 1.400E-04 | 7.306E-05 | 7.306E-05 |
| G | 0.2 | 0.01 | 823. | 0. | 0. | 0. | 21.4 | 7.7 | 125.7 | 1.477E-03 | 2.891E-03 | 1.477E-03 |
| G | 1.6 | 1.21 | 823. | 0. | 0. | 0. | 21.4 | 7.7 | 125.7 | 2.109E-04 | 4.129E-04 | 2.109E-04 |
| G | 3.3 | 0.06 | 823. | 0. | 0. | 0. | 21.4 | 7.7 | 54.9 | 2.255E-04 | 1.927E-04 | 1.927E-04 |
| G | 5.6 | 0.02 | 823. | 0. | 0. | 0. | 21.4 | 7.7 | 24.2 | 3.073E-04 | 1.156E-04 | 1.156E-04 |

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1343 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Ground Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 10.1 meters

DELTA-T HEIGHTS: 10.1-45.7 meters

SITE EXCLUSION BOUNDARY CALCULATIONS:

SSE SECTOR BOUNDARY DISTANCE = 823.0 METERS

LATERAL PLUME MEANDER/BUILDING WAKE CREDIT ALLOWED

AS A FUNCTION OF DOWNWIND DISTANCE.

MEANDER CREDIT IS FOR WINDSPEEDS LESS THAN 6 MPS.

BUILDING WAKE CREDIT ALLOWED: C= 0.5 A= 2584. D= 54.3

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

| | | | | | | | | | |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 1.477E-03 | 9.797E-04 | 5.778E-04 | 4.217E-04 | 2.109E-04 | 1.927E-04 | 1.400E-04 | 1.218E-04 | 1.156E-04 | 8.255E-05 |
| 0.010 | 0.035 | 0.099 | 0.110 | 1.322 | 1.385 | 4.770 | 5.564 | 5.585 | 14.508 |
| 0.00107 | 0.00390 | 0.01102 | 0.01231 | 0.14790 | 0.15492 | 0.53365 | 0.62249 | 0.62483 | 1.62310 |
| 7.306E-05 | 6.389E-05 | 6.024E-05 | 4.576E-05 | 4.078E-05 | 3.869E-05 | 3.092E-05 | 2.686E-05 | 2.383E-05 | 1.903E-05 |
| 14.550 | 30.453 | 35.427 | 39.836 | 40.526 | 59.793 | 60.002 | 76.553 | 76.574 | 79.186 |
| 1.62777 | 3.40689 | 3.96331 | 4.45660 | 4.53375 | 6.68926 | 6.71264 | 8.56423 | 8.56657 | 8.85880 |
| 1.871E-05 | 1.815E-05 | 1.142E-05 | 1.040E-05 | 8.732E-06 | 7.714E-06 | 6.105E-06 | 5.239E-06 | 4.152E-06 | 3.540E-06 |
| 79.980 | 82.739 | 85.351 | 85.476 | 88.945 | 89.280 | 89.342 | 92.853 | 93.689 | 93.877 |
| 8.94764 | 9.25624 | 9.54847 | 9.56250 | 9.95059 | 9.98799 | 9.99501 | 10.38777 | 10.48128 | 10.50232 |
| 1.937E-06 | 1.162E-06 | 7.854E-07 | | | | | | | |
| 98.098 | 99.979 | 100.000 | | | | | | | |
| 10.97457 | 11.18498 | 11.18732 | | | | | | | |

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (2)= 1.621
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (5)= 6.685
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (6)= 8.561
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (7)= 9.253

Calculation No. PM-1055 Revision 0

Attachment J

Page 1344 of 1411

| K | I | XQSAVE(K,I) | XQINT(K,I) | XQSLOP(K,I) |
|----|---|-------------|--------------|-------------|
| 16 | 1 | -6.51806 | -12.32618 | -1.36693 |
| 16 | 2 | -9.40215 | -11.14419 | -0.81437 |
| 16 | 3 | -9.65837 | -11.21124 | -0.85112 |
| 16 | 4 | -9.71722 | -12.75544 | -1.73083 |
| 16 | 5 | -10.15982 | -14.32732 | -2.77900 |
| 16 | 6 | -10.52476 | -23.00779 | -9.12290 |
| 16 | 7 | -10.91680 | NUMXQ(K) = 7 | |
| | | 2.895E-04 | 0.112 | 1.000 |
| | | 1.804E-04 | 0.336 | 3.000 |
| | | 1.422E-04 | 0.559 | 5.000 |
| | | 1.007E-04 | 1.119 | 10.000 |
| | | 8.165E-05 | 1.678 | 15.000 |
| | | 7.415E-05 | 2.237 | 20.000 |
| | | 6.860E-05 | 2.797 | 25.000 |
| | | 6.424E-05 | 3.356 | 30.000 |
| | | 6.053E-05 | 3.916 | 35.000 |
| | | 5.458E-05 | 4.475 | 40.000 |
| | | 4.950E-05 | 5.034 | 45.000 |
| | | 4.526E-05 | 5.594 | 50.000 |
| | | 4.166E-05 | 6.153 | 55.000 |
| | | 3.850E-05 | 6.712 | 60.000 |
| | | 3.429E-05 | 7.272 | 65.000 |
| | | 3.074E-05 | 7.831 | 70.000 |
| | | 2.771E-05 | 8.390 | 75.000 |
| | | 2.153E-05 | 8.950 | 80.000 |
| | | 1.500E-04 | 0.5 | 4.47 |

ANNUAL AVERAGE = 4.28E-06

K= 16 FIVEXQ(K)= 1.500E-04 FIVEPR(K)= 4.469

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1345 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 10.1 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.1-45.7 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE ALL SECTOR.

| STABILITY | WINDSPEED | FREQUENCY | DISTANCE | TERRAIN | HT | EFF | PLUME | HT | SIGMA-Y | SIGMA-Z | MEANDER-SY | ** CHI/Q VALUES (SEC/CUBIC METER) | | |
|----------------|-----------|-----------|----------|---------|--------|--------|--------|--------|-----------|-----------|------------|-----------------------------------|-----------|------|
| CLASS | METER/SEC | PERCENT | METERS | METERS | METERS | METERS | METERS | METERS | METERS | METERS | METERS | MEANDER | BLDG WAKE | USED |
| AT 10.0 METERS | | | | | | | | | | | | CA=1292.SQ.METERS | | |
| A | 1.6 | 2.07 | 823. | 0. | 0. | 157.1 | 310.1 | 157.1 | 4.187E-06 | 4.152E-06 | 4.152E-06 | | | |
| A | 3.3 | 3.09 | 823. | 0. | 0. | 157.1 | 310.1 | 157.1 | 1.954E-06 | 1.937E-06 | 1.937E-06 | | | |
| A | 5.6 | 1.12 | 823. | 0. | 0. | 157.1 | 310.1 | 157.1 | 1.172E-06 | 1.162E-06 | 1.162E-06 | | | |
| A | 8.2 | 0.09 | 823. | 0. | 0. | 157.1 | 310.1 | 157.1 | 7.921E-07 | 7.854E-07 | 7.854E-07 | | | |
| A | 24.5 | 0.01 | 823. | 0. | 0. | 157.1 | 310.1 | 157.1 | 2.664E-07 | 2.642E-07 | 2.642E-07 | | | |
| B | 1.6 | 1.14 | 823. | 0. | 0. | 118.1 | 88.8 | 118.1 | 1.945E-05 | 1.871E-05 | 1.871E-05 | | | |
| B | 3.3 | 2.32 | 823. | 0. | 0. | 118.1 | 88.8 | 118.1 | 9.075E-06 | 8.732E-06 | 8.732E-06 | | | |
| B | 5.6 | 1.66 | 823. | 0. | 0. | 118.1 | 88.8 | 118.1 | 5.445E-06 | 5.239E-06 | 5.239E-06 | | | |
| B | 8.2 | 0.19 | 823. | 0. | 0. | 118.1 | 88.8 | 118.1 | 3.679E-06 | 3.540E-06 | 3.540E-06 | | | |
| B | 10.7 | 0.00 | 823. | 0. | 0. | 118.1 | 88.8 | 118.1 | 2.836E-06 | 2.729E-06 | 2.729E-06 | | | |
| B | 24.5 | 0.00 | 823. | 0. | 0. | 118.1 | 88.8 | 118.1 | 1.237E-06 | 1.191E-06 | 1.191E-06 | | | |
| C | 1.6 | 0.70 | 823. | 0. | 0. | 89.7 | 51.2 | 89.7 | 4.443E-05 | 4.078E-05 | 4.078E-05 | | | |
| C | 3.3 | 1.33 | 823. | 0. | 0. | 89.7 | 51.2 | 89.7 | 2.073E-05 | 1.903E-05 | 1.903E-05 | | | |
| C | 5.6 | 1.13 | 823. | 0. | 0. | 89.7 | 51.2 | 89.7 | 1.244E-05 | 1.142E-05 | 1.142E-05 | | | |
| C | 8.2 | 0.15 | 823. | 0. | 0. | 89.7 | 51.2 | 89.7 | 8.406E-06 | 7.714E-06 | 7.714E-06 | | | |
| C | 10.7 | 0.00 | 823. | 0. | 0. | 89.7 | 51.2 | 89.7 | 6.479E-06 | 5.947E-06 | 5.947E-06 | | | |
| D | 0.2 | 0.02 | 823. | 0. | 0. | 63.2 | 27.1 | 63.2 | 8.327E-04 | 6.716E-04 | 6.716E-04 | | | |
| D | 1.6 | 8.11 | 823. | 0. | 0. | 63.2 | 27.1 | 63.2 | 1.190E-04 | 9.594E-05 | 9.594E-05 | | | |
| D | 3.3 | 12.97 | 823. | 0. | 0. | 63.2 | 27.1 | 63.2 | 5.551E-05 | 4.477E-05 | 4.477E-05 | | | |
| D | 5.6 | 8.31 | 823. | 0. | 0. | 63.2 | 27.1 | 63.2 | 3.331E-05 | 2.686E-05 | 2.686E-05 | | | |
| D | 8.2 | 1.17 | 823. | 0. | 0. | 63.2 | 27.1 | 63.2 | 2.250E-05 | 1.815E-05 | 1.815E-05 | | | |
| D | 10.7 | 0.01 | 823. | 0. | 0. | 63.2 | 27.1 | 63.2 | 1.735E-05 | 1.399E-05 | 1.399E-05 | | | |
| D | 24.5 | 0.01 | 823. | 0. | 0. | 63.2 | 27.1 | 63.2 | 7.570E-06 | 6.105E-06 | 6.105E-06 | | | |
| E | 0.2 | 0.13 | 823. | 0. | 0. | 44.9 | 18.7 | 44.9 | 1.704E-03 | 1.144E-03 | 1.144E-03 | | | |
| E | 1.6 | 17.70 | 823. | 0. | 0. | 44.9 | 18.7 | 44.9 | 2.435E-04 | 1.634E-04 | 1.634E-04 | | | |
| E | 3.3 | 17.17 | 823. | 0. | 0. | 44.9 | 18.7 | 44.9 | 1.136E-04 | 7.627E-05 | 7.627E-05 | | | |
| E | 5.6 | 3.18 | 823. | 0. | 0. | 44.9 | 18.7 | 44.9 | 6.817E-05 | 4.576E-05 | 4.576E-05 | | | |
| E | 8.2 | 0.17 | 823. | 0. | 0. | 44.9 | 18.7 | 44.9 | 4.606E-05 | 3.092E-05 | 3.092E-05 | | | |
| E | 10.7 | 0.00 | 823. | 0. | 0. | 44.9 | 18.7 | 44.9 | 3.551E-05 | 2.383E-05 | 2.383E-05 | | | |
| E | 24.5 | 0.02 | 823. | 0. | 0. | 44.9 | 18.7 | 44.9 | 1.549E-05 | 1.040E-05 | 1.040E-05 | | | |
| F | 0.2 | 0.06 | 823. | 0. | 0. | 31.0 | 12.0 | 31.0 | 3.845E-03 | 1.827E-03 | 1.827E-03 | | | |
| F | 1.6 | 8.14 | 823. | 0. | 0. | 31.0 | 12.0 | 31.0 | 5.492E-04 | 2.609E-04 | 2.609E-04 | | | |
| F | 3.3 | 2.33 | 823. | 0. | 0. | 31.0 | 12.0 | 31.0 | 2.563E-04 | 1.218E-04 | 1.218E-04 | | | |
| F | 5.6 | 0.02 | 823. | 0. | 0. | 31.0 | 12.0 | 31.0 | 1.538E-04 | 7.306E-05 | 7.306E-05 | | | |

| | | | | | | | | | | | |
|---|-----|------|------|----|----|------|-----|------|-----------|-----------|-----------|
| G | 0.2 | 0.04 | 823. | 0. | 0. | 21.4 | 7.7 | 21.4 | 8.673E-03 | 2.891E-03 | 2.891E-03 |
| G | 1.6 | 4.43 | 823. | 0. | 0. | 21.4 | 7.7 | 21.4 | 1.239E-03 | 4.129E-04 | 4.129E-04 |
| G | 3.3 | 1.01 | 823. | 0. | 0. | 21.4 | 7.7 | 21.4 | 5.782E-04 | 1.927E-04 | 1.927E-04 |
| G | 5.6 | 0.00 | 823. | 0. | 0. | 21.4 | 7.7 | 21.4 | 3.469E-04 | 1.156E-04 | 1.156E-04 |

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1347 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 10.1 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.1-45.7 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

DIRECTION-INDEPENDENT (S.R.P 2.3.4) MODEL.

MINIMUM BOUNDARY DISTANCE = 823.0 METERS.

BUILDING WAKE CREDIT ALLOWED: C= 0.5 A= 2584. D= 54.3

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

| | | | | | | | | | |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 2.891E-03 | 1.827E-03 | 1.144E-03 | 6.716E-04 | 4.129E-04 | 2.609E-04 | 1.927E-04 | 1.634E-04 | 1.218E-04 | 1.156E-04 |
| 0.035 | 0.096 | 0.222 | 0.241 | 4.671 | 12.807 | 13.817 | 31.514 | 33.841 | 33.845 |
| 0.03507 | 0.09585 | 0.22210 | 0.24080 | 4.67106 | 12.80684 | 13.81680 | 31.51447 | 33.84065 | 33.84533 |
| 9.594E-05 | 7.627E-05 | 7.306E-05 | 4.576E-05 | 4.477E-05 | 4.078E-05 | 3.092E-05 | 2.686E-05 | 2.383E-05 | 1.903E-05 |
| 41.953 | 59.127 | 59.146 | 62.328 | 75.293 | 75.995 | 76.165 | 84.472 | 84.477 | 85.807 |
| 41.95306 | 59.12704 | 59.14574 | 62.32758 | 75.29340 | 75.99477 | 76.16543 | 84.47188 | 84.47655 | 85.80680 |
| 1.871E-05 | 1.815E-05 | 1.399E-05 | 1.142E-05 | 1.040E-05 | 8.732E-06 | 7.714E-06 | 6.105E-06 | 5.947E-06 | 5.239E-06 |
| 86.948 | 88.121 | 88.128 | 89.260 | 89.276 | 91.595 | 91.745 | 91.757 | 91.759 | 93.424 |
| 86.94768 | 88.12128 | 88.12830 | 89.25983 | 89.27619 | 91.59535 | 91.74497 | 91.75666 | 91.75900 | 93.42356 |
| 4.152E-06 | 3.540E-06 | 2.729E-06 | 1.937E-06 | 1.191E-06 | 1.162E-06 | 7.854E-07 | 2.642E-07 | | |
| 95.495 | 95.689 | 95.691 | 98.777 | 98.780 | 99.897 | 99.991 | 100.000 | | |
| 95.49491 | 95.68896 | 95.69129 | 98.77728 | 98.77962 | 99.89712 | 99.99063 | 99.99998 | | |

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

| CHI/Q | WITH RESPECT TO | WHEN THE WIND BLOWS |
|-----------------|-----------------|-----------------------|
| SEC/CUBIC METER | THE TOTAL TIME | INTO THIS SECTOR ONLY |

| | | |
|-----------|--------|--------|
| 1.012E-03 | 1.000 | 1.000 |
| 6.517E-04 | 3.000 | 3.000 |
| 5.162E-04 | 5.000 | 5.000 |
| 3.605E-04 | 10.000 | 10.000 |
| 2.829E-04 | 15.000 | 15.000 |
| 2.333E-04 | 20.000 | 20.000 |
| 1.978E-04 | 25.000 | 25.000 |
| 1.705E-04 | 30.000 | 30.000 |
| 1.475E-04 | 35.000 | 35.000 |

| | | |
|-----------|--------|--------|
| 1.280E-04 | 40.000 | 40.000 |
| 1.117E-04 | 45.000 | 45.000 |
| 9.762E-05 | 50.000 | 50.000 |
| 8.535E-05 | 55.000 | 55.000 |
| 7.427E-05 | 60.000 | 60.000 |
| 6.360E-05 | 65.000 | 65.000 |
| 5.400E-05 | 70.000 | 70.000 |
| 4.526E-05 | 75.000 | 75.000 |
| 3.507E-05 | 80.000 | 80.000 |
| 2.549E-05 | 85.000 | 85.000 |
| 1.604E-05 | 90.000 | 90.000 |

| | | |
|-----------|-----|------|
| 5.162E-04 | 5.0 | 5.00 |
|-----------|-----|------|

K= 17 FIVEXQ(K)= 5.162E-04 FIVEPR(K)= 5.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1349 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 10.1 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.1-45.7 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

SITE EXCLUSION BOUNDARY CALCULATIONS:

FIVE PERCENT OVERALL SITE LIMIT

BUILDING WAKE CREDIT ALLOWED: C= 0.5 A= 2584 D= 54.3

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

| | | | | | | | | | |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 1.477E-03 | 9.797E-04 | 5.778E-04 | 4.217E-04 | 2.109E-04 | 1.927E-04 | 1.400E-04 | 1.218E-04 | 1.156E-04 | 8.255E-05 |
| 0.035 | 0.096 | 0.222 | 0.241 | 4.671 | 5.681 | 13.817 | 16.143 | 16.148 | 33.845 |
| 0.03507 | 0.09585 | 0.22210 | 0.24080 | 4.67106 | 5.68102 | 13.81680 | 16.14298 | 16.14766 | 33.84532 |
| 7.306E-05 | 6.389E-05 | 6.024E-05 | 4.576E-05 | 4.078E-05 | 3.869E-05 | 3.092E-05 | 2.686E-05 | 2.383E-05 | 1.903E-05 |
| 33.864 | 51.038 | 59.146 | 62.328 | 63.029 | 75.995 | 76.165 | 84.472 | 84.477 | 85.807 |
| 33.86403 | 51.03802 | 59.14575 | 62.32759 | 63.02894 | 75.99476 | 76.16543 | 84.47186 | 84.47653 | 85.80677 |
| 1.871E-05 | 1.815E-05 | 1.399E-05 | 1.142E-05 | 1.040E-05 | 8.732E-06 | 7.714E-06 | 6.105E-06 | 5.947E-06 | 5.239E-06 |
| 86.948 | 88.121 | 88.128 | 89.260 | 89.276 | 91.595 | 91.745 | 91.757 | 91.759 | 93.424 |
| 86.94765 | 88.12126 | 88.12827 | 89.25978 | 89.27615 | 91.59528 | 91.74490 | 91.75658 | 91.75892 | 93.42348 |
| 4.152E-06 | 3.540E-06 | 2.729E-06 | 1.937E-06 | 1.191E-06 | 1.162E-06 | 7.854E-07 | 2.642E-07 | | |
| 95.495 | 95.689 | 95.691 | 98.777 | 98.780 | 99.897 | 99.991 | 100.000 | | |
| 95.49483 | 95.68887 | 95.69120 | 98.77720 | 98.77953 | 99.89703 | 99.99052 | 99.99987 | | |

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

| K | I | XQSAVE(K,I) | XQINT(K,I) | XQSLQP(K,I) |
|----|---|-------------|--------------|-------------|
| 18 | 1 | -6.51806 | -9.80595 | -0.97009 |
| 18 | 2 | -9.40215 | -9.60481 | -0.48686 |
| 18 | 3 | -9.71722 | -9.50206 | -0.93185 |
| 18 | 4 | -10.15982 | -9.32390 | -1.18425 |
| 18 | 5 | -10.52476 | -8.14652 | -2.34535 |
| 18 | 6 | -10.91680 | -9.46307 | -1.23075 |
| 18 | 7 | -14.05704 | NUMXQ(K) = 7 | |

| | | |
|-----------|--------|--------|
| 5.268E-04 | 1.000 | 1.000 |
| 3.419E-04 | 3.000 | 3.000 |
| 2.719E-04 | 5.000 | 5.000 |
| 1.911E-04 | 10.000 | 10.000 |
| 1.507E-04 | 15.000 | 15.000 |
| 1.247E-04 | 20.000 | 20.000 |
| 1.060E-04 | 25.000 | 25.000 |
| 9.164E-05 | 30.000 | 30.000 |
| 8.129E-05 | 35.000 | 35.000 |
| 7.624E-05 | 40.000 | 40.000 |
| 7.165E-05 | 45.000 | 45.000 |
| 6.740E-05 | 50.000 | 50.000 |
| 6.341E-05 | 55.000 | 55.000 |
| 5.901E-05 | 60.000 | 60.000 |
| 5.219E-05 | 65.000 | 65.000 |
| 4.584E-05 | 70.000 | 70.000 |
| 3.985E-05 | 75.000 | 75.000 |
| 3.295E-05 | 80.000 | 80.000 |
| 2.549E-05 | 85.000 | 85.000 |
| 1.604E-05 | 90.000 | 90.000 |

| | | |
|-----------|-----|------|
| 2.719E-04 | 5.0 | 5.00 |
|-----------|-----|------|

K= 18 FIVEXQ(K)= 2.719E-04 FIVEPR(K)= 5.000

| K | HIGHPR | PR | GRNDVT(K) |
|----|----------|---------|-----------|
| 1 | -3.19248 | 0.07054 | 7.16050 |
| 2 | -1.89452 | 2.90780 | 3.52922 |
| 3 | -3.30045 | 0.04827 | 3.23970 |
| 4 | -3.26009 | 0.05569 | 2.96101 |
| 5 | -3.11367 | 0.09239 | 3.59423 |
| 6 | -3.13272 | 0.08661 | 3.74028 |
| 7 | -3.22275 | 0.06349 | 4.91057 |
| 8 | -3.21567 | 0.06508 | 6.63198 |
| 9 | -3.18699 | 0.07189 | 8.27142 |
| 10 | -3.19007 | 0.07113 | 4.16751 |
| 11 | -2.92509 | 0.17219 | 4.48639 |
| 12 | -2.57624 | 0.49942 | 6.76889 |
| 13 | -2.67575 | 0.37282 | 8.24935 |
| 14 | -2.83305 | 0.23054 | 9.70638 |
| 15 | -2.98351 | 0.14248 | 11.39525 |
| 16 | -3.18823 | 0.07158 | 11.18732 |

| K | HOURS(K) | TOTHR |
|---|-----------|-----------|
| 1 | 6.17897 | 6.17897 |
| 2 | 254.72330 | 260.90230 |
| 3 | 4.22826 | 265.13060 |
| 4 | 4.87885 | 270.00940 |
| 5 | 8.09364 | 278.10300 |
| 6 | 7.58665 | 285.68970 |
| 7 | 5.56180 | 291.25150 |
| 8 | 5.70069 | 296.95210 |
| 9 | 6.29749 | 303.24960 |

Calculation No. PM-1055 Revision 0

Attachment J

Page 1351 of 1411

| | | |
|----|----------|-----------|
| 10 | 6.23066 | 309.48030 |
| 11 | 15.08348 | 324.56380 |
| 12 | 43.74879 | 368.31260 |
| 13 | 32.65860 | 400.97120 |
| 14 | 20.19520 | 421.16640 |
| 15 | 12.48168 | 433.64800 |
| 16 | 6.27034 | 439.91840 |

| K | FIVEXQ | SVANN | SLTIME | TIMINT | I | TIME | XQT |
|---|-----------|-----------|---------|---------|---|-------|-----------|
| 1 | 1.596E-04 | 3.660E-06 | -0.4502 | -8.4310 | 1 | 8.0 | -9.36720 |
| | | | | | 2 | 16.0 | -9.67927 |
| | | | | | 3 | 72.0 | -10.35644 |
| | | | | | 4 | 624.0 | -11.32868 |
| 2 | 1.296E-04 | 2.400E-06 | -0.4757 | -8.6213 | 1 | 8.0 | -9.61057 |
| | | | | | 2 | 16.0 | -9.94032 |
| | | | | | 3 | 72.0 | -10.65584 |
| | | | | | 4 | 624.0 | -11.68316 |
| 3 | 1.335E-04 | 2.444E-06 | -0.4771 | -8.5909 | 1 | 8.0 | -9.58300 |
| | | | | | 2 | 16.0 | -9.91369 |
| | | | | | 3 | 72.0 | -10.63127 |
| | | | | | 4 | 624.0 | -11.66153 |
| 4 | 1.318E-04 | 2.308E-06 | -0.4824 | -8.5997 | 1 | 8.0 | -9.60279 |
| | | | | | 2 | 16.0 | -9.93716 |
| | | | | | 3 | 72.0 | -10.66271 |
| | | | | | 4 | 624.0 | -11.70443 |
| 5 | 1.638E-04 | 3.105E-06 | -0.4729 | -8.3888 | 1 | 8.0 | -9.37231 |
| | | | | | 2 | 16.0 | -9.70014 |
| | | | | | 3 | 72.0 | -10.41148 |
| | | | | | 4 | 624.0 | -11.43281 |
| 6 | 1.620E-04 | 2.863E-06 | -0.4813 | -8.3945 | 1 | 8.0 | -9.39530 |
| | | | | | 2 | 16.0 | -9.72889 |
| | | | | | 3 | 72.0 | -10.45275 |
| | | | | | 4 | 624.0 | -11.49202 |
| 7 | 1.499E-04 | 2.932E-06 | -0.4692 | -8.4806 | 1 | 8.0 | -9.45616 |
| | | | | | 2 | 16.0 | -9.78136 |
| | | | | | 3 | 72.0 | -10.48702 |
| | | | | | 4 | 624.0 | -11.50018 |
| 8 | 1.601E-04 | 3.492E-06 | -0.4562 | -8.4235 | 1 | 8.0 | -9.37217 |
| | | | | | 2 | 16.0 | -9.68838 |
| | | | | | 3 | 72.0 | -10.37454 |
| | | | | | 4 | 624.0 | -11.35969 |
| 9 | 1.662E-04 | 3.785E-06 | -0.4511 | -8.3896 | 1 | 8.0 | -9.32757 |
| | | | | | 2 | 16.0 | -9.64022 |
| | | | | | 3 | 72.0 | -10.31864 |

| | | | | | | | |
|----|-----------|-----------|---------|---------|---|-------|-----------|
| 10 | 1.483E-04 | 2.548E-06 | -0.4846 | -8.4806 | 4 | 624.0 | -11.29270 |
| | | | | | 1 | 8.0 | -9.48837 |
| | | | | | 2 | 16.0 | -9.82430 |
| | | | | | 3 | 72.0 | -10.55325 |
| | | | | | 4 | 624.0 | -11.59984 |
| 11 | 2.170E-04 | 3.470E-06 | -0.4932 | -8.0936 | 1 | 8.0 | -9.11931 |
| | | | | | 2 | 16.0 | -9.46119 |
| | | | | | 3 | 72.0 | -10.20306 |
| | | | | | 4 | 624.0 | -11.26821 |
| | | | | | | | |
| 12 | 3.463E-04 | 6.487E-06 | -0.4744 | -7.6393 | 1 | 8.0 | -8.62570 |
| | | | | | 2 | 16.0 | -8.95451 |
| | | | | | 3 | 72.0 | -9.66800 |
| | | | | | 4 | 624.0 | -10.69239 |
| | | | | | | | |
| 13 | 3.039E-04 | 6.501E-06 | -0.4585 | -7.7810 | 1 | 8.0 | -8.73448 |
| | | | | | 2 | 16.0 | -9.05229 |
| | | | | | 3 | 72.0 | -9.74193 |
| | | | | | 4 | 624.0 | -10.73208 |
| | | | | | | | |
| 14 | 2.463E-04 | 5.732E-06 | -0.4485 | -7.9981 | 1 | 8.0 | -8.93071 |
| | | | | | 2 | 16.0 | -9.24157 |
| | | | | | 3 | 72.0 | -9.91610 |
| | | | | | 4 | 624.0 | -10.88456 |
| | | | | | | | |
| 15 | 2.026E-04 | 5.538E-06 | -0.4293 | -8.2066 | 1 | 8.0 | -9.09929 |
| | | | | | 2 | 16.0 | -9.39686 |
| | | | | | 3 | 72.0 | -10.04255 |
| | | | | | 4 | 624.0 | -10.96962 |
| | | | | | | | |
| 16 | 1.500E-04 | 4.285E-06 | -0.4241 | -8.5107 | 1 | 8.0 | -9.39252 |
| | | | | | 2 | 16.0 | -9.68646 |
| | | | | | 3 | 72.0 | -10.32428 |
| | | | | | 4 | 624.0 | -11.24004 |
| | | | | | | | |
| 17 | 5.162E-04 | 6.501E-06 | -0.5217 | -7.2074 | 1 | 8.0 | -8.29226 |
| | | | | | 2 | 16.0 | -8.65387 |
| | | | | | 3 | 72.0 | -9.43855 |
| | | | | | 4 | 624.0 | -10.56514 |
| | | | | | | | |
| 18 | 2.719E-04 | 6.501E-06 | -0.4453 | -7.9013 | 1 | 8.0 | -8.82721 |
| | | | | | 2 | 16.0 | -9.13584 |
| | | | | | 3 | 72.0 | -9.80555 |
| | | | | | 4 | 624.0 | -10.76709 |
| | | | | | | | |

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1353 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 10.1 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.1 45.7 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

RELATIVE CONCENTRATION (X/Q) VALUES (SEC/CUBIC METER)

VERSUS

AVERAGING TIME

HOURS PER YEAR MAX

0-2 HR X/Q IS

EXCEEDED

| DOWNWIND DISTANCE
SECTOR (METERS) | 0-2 HOURS | 0-8 HOURS | 8-24 HOURS | 1-4 DAYS | 4-30 DAYS | ANNUAL AVERAGE | IN SECTOR | DOWNWIND
SECTOR |
|--------------------------------------|-----------|-----------|------------|----------|-----------|--------------------------|-----------|--------------------|
| S 823. | 1.60E-04 | 8.55E-05 | 6.26E-05 | 3.18E-05 | 1.20E-05 | 3.66E-06 | 6.2 | S |
| SSW 823. | 1.30E-04 | 6.70E-05 | 4.82E-05 | 2.36E-05 | 8.43E-06 | 2.40E-06 | 254.7 | SSW |
| SW 823. | 1.33E-04 | 6.89E-05 | 4.95E-05 | 2.41E-05 | 8.62E-06 | 2.44E-06 | 4.2 | SW |
| WSW 823. | 1.32E-04 | 6.75E-05 | 4.83E-05 | 2.34E-05 | 8.26E-06 | 2.31E-06 | 4.9 | WSW |
| W 823. | 1.64E-04 | 8.50E-05 | 6.13E-05 | 3.01E-05 | 1.08E-05 | 3.11E-06 | 8.1 | W |
| WNW 823. | 1.62E-04 | 8.31E-05 | 5.95E-05 | 2.89E-05 | 1.02E-05 | 2.86E-06 | 7.6 | WNW |
| NW 823. | 1.50E-04 | 7.82E-05 | 5.65E-05 | 2.79E-05 | 1.01E-05 | 2.93E-06 | 5.6 | NW |
| NNW 823. | 1.60E-04 | 8.51E-05 | 6.20E-05 | 3.12E-05 | 1.17E-05 | 3.49E-06 | 5.7 | NNW |
| N 823. | 1.66E-04 | 8.89E-05 | 6.51E-05 | 3.30E-05 | 1.25E-05 | 3.79E-06 | 6.3 | N |
| NNE 823. | 1.48E-04 | 7.57E-05 | 5.41E-05 | 2.61E-05 | 9.17E-06 | 2.55E-06 | 6.2 | NNE |
| NE 823. | 2.17E-04 | 1.10E-04 | 7.78E-05 | 3.71E-05 | 1.28E-05 | 3.47E-06 | 15.1 | NE |
| ENE 823. | 3.46E-04 | 1.79E-04 | 1.29E-04 | 6.33E-05 | 2.27E-05 | 6.49E-06 | 43.7 | ENE |
| E 823. | 3.04E-04 | 1.61E-04 | 1.17E-04 | 5.88E-05 | 2.18E-05 | 6.50E-06 | 32.7 | E |
| ESE 823. | 2.46E-04 | 1.32E-04 | 9.69E-05 | 4.94E-05 | 1.87E-05 | 5.73E-06 | 20.2 | ESE |
| SE 823. | 2.03E-04 | 1.12E-04 | 8.30E-05 | 4.35E-05 | 1.72E-05 | 5.54E-06 | 12.5 | SE |
| SSE 823. | 1.50E-04 | 8.33E-05 | 6.21E-05 | 3.28E-05 | 1.31E-05 | 4.28E-06 | 6.3 | SSE |
| MAX X/Q | 3.46E-04 | | | | | TOTAL HOURS AROUND SITE: | 439.9 | |
| SRP 2.3.4 823. | 5.16E-04 | 2.50E-04 | 1.74E-04 | 7.96E-05 | 2.58E-05 | 6.50E-06 | | |
| SITE LIMIT | 2.72E-04 | 1.47E-04 | 1.08E-04 | 5.51E-05 | 2.11E-05 | 6.50E-06 | | |

0.5 PERCENT X/Q TO AN INDIVIDUAL IS LIMITING.

****NOTE**:** VALUES ON THIS PAGE ARE APPROXIMATIONS ONLY.
 CHECK THE REASONABLENESS OF THE ENVELOPES
 COMPUTED FOR THE 0-2 HOUR VALUES. FOR ANY
 FAULTY ENVELOPES, ADJUST THE ABOVE VALUES.

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1354 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Ground Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 10.1 meters

DELTA-T HEIGHTS: 10.1-45.7 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE S SECTOR.

| STABILITY | WINDSPEED | FREQUENCY | DISTANCE | TERRAIN | HT | EFF | PLUME | HT | SIGMA-Y | SIGMA-Z | MEANDER-SY | ** CHI/Q VALUES (SEC/CUBIC METER) | | |
|----------------|-----------|-----------|----------|---------|--------|--------|--------|--------|---------|-----------|------------|-----------------------------------|-----------|------|
| CLASS | METER/SEC | PERCENT | METERS | METERS | METERS | METERS | METERS | METERS | METERS | METERS | METERS | MEANDER | BLDG WAKE | USED |
| AT 10.0 METERS | | | | | | | | | | | | CA=1292.SQ.METERS | | |
| A | 1.6 | 2.87 | 7300. | 0. | 0. | 0. | 1000.0 | 1000.0 | 1000.0 | 2.039E-07 | 2.039E-07 | 2.039E-07 | | |
| A | 3.3 | 5.49 | 7300. | 0. | 0. | 0. | 1000.0 | 1000.0 | 1000.0 | 9.517E-08 | 9.514E-08 | 9.514E-08 | | |
| A | 5.6 | 0.91 | 7300. | 0. | 0. | 0. | 1000.0 | 1000.0 | 1000.0 | 5.710E-08 | 5.708E-08 | 5.708E-08 | | |
| A | 8.2 | 0.03 | 7300. | 0. | 0. | 0. | 1000.0 | 1000.0 | 1000.0 | 3.858E-08 | 3.857E-08 | 3.857E-08 | | |
| B | 1.6 | 1.96 | 7300. | 0. | 0. | 0. | 848.1 | 962.0 | 848.1 | 2.500E-07 | 2.498E-07 | 2.498E-07 | | |
| B | 3.3 | 4.70 | 7300. | 0. | 0. | 0. | 848.1 | 962.0 | 848.1 | 1.166E-07 | 1.166E-07 | 1.166E-07 | | |
| B | 5.6 | 1.24 | 7300. | 0. | 0. | 0. | 848.1 | 962.0 | 848.1 | 6.999E-08 | 6.995E-08 | 6.995E-08 | | |
| B | 8.2 | 0.07 | 7300. | 0. | 0. | 0. | 848.1 | 962.0 | 848.1 | 4.729E-08 | 4.727E-08 | 4.727E-08 | | |
| C | 1.6 | 1.04 | 7300. | 0. | 0. | 0. | 644.0 | 373.7 | 644.0 | 8.473E-07 | 8.459E-07 | 8.459E-07 | | |
| C | 3.3 | 1.89 | 7300. | 0. | 0. | 0. | 644.0 | 373.7 | 644.0 | 3.954E-07 | 3.947E-07 | 3.947E-07 | | |
| C | 5.6 | 0.52 | 7300. | 0. | 0. | 0. | 644.0 | 373.7 | 644.0 | 2.372E-07 | 2.368E-07 | 2.368E-07 | | |
| C | 8.2 | 0.03 | 7300. | 0. | 0. | 0. | 644.0 | 373.7 | 644.0 | 1.603E-07 | 1.600E-07 | 1.600E-07 | | |
| D | 0.2 | 0.03 | 7300. | 0. | 0. | 0. | 453.5 | 111.1 | 515.1 | 2.494E-05 | 2.810E-05 | 2.494E-05 | | |
| D | 1.6 | 12.70 | 7300. | 0. | 0. | 0. | 453.5 | 111.1 | 515.1 | 3.563E-06 | 4.014E-06 | 3.563E-06 | | |
| D | 3.3 | 18.64 | 7300. | 0. | 0. | 0. | 453.5 | 111.1 | 481.0 | 1.781E-06 | 1.873E-06 | 1.781E-06 | | |
| D | 5.6 | 7.18 | 7300. | 0. | 0. | 0. | 453.5 | 111.1 | 456.4 | 1.126E-06 | 1.124E-06 | 1.124E-06 | | |
| D | 8.2 | 0.75 | 7300. | 0. | 0. | 0. | 453.5 | 111.1 | 453.5 | 7.657E-07 | 7.595E-07 | 7.595E-07 | | |
| D | 24.5 | 0.07 | 7300. | 0. | 0. | 0. | 453.5 | 111.1 | 453.5 | 2.575E-07 | 2.555E-07 | 2.555E-07 | | |
| E | 0.2 | 0.12 | 7300. | 0. | 0. | 0. | 322.5 | 67.5 | 410.0 | 5.173E-05 | 6.456E-05 | 5.173E-05 | | |
| E | 1.6 | 16.88 | 7300. | 0. | 0. | 0. | 322.5 | 67.5 | 410.0 | 7.390E-06 | 9.223E-06 | 7.390E-06 | | |
| E | 3.3 | 14.63 | 7300. | 0. | 0. | 0. | 322.5 | 67.5 | 357.4 | 3.956E-06 | 4.304E-06 | 3.956E-06 | | |
| E | 5.6 | 2.38 | 7300. | 0. | 0. | 0. | 322.5 | 67.5 | 325.9 | 2.603E-06 | 2.582E-06 | 2.582E-06 | | |
| E | 8.2 | 0.13 | 7300. | 0. | 0. | 0. | 322.5 | 67.5 | 322.5 | 1.778E-06 | 1.745E-06 | 1.745E-06 | | |
| E | 24.5 | 0.03 | 7300. | 0. | 0. | 0. | 322.5 | 67.5 | 322.5 | 5.980E-07 | 5.869E-07 | 5.869E-07 | | |
| F | 0.2 | 0.03 | 7300. | 0. | 0. | 0. | 222.6 | 40.9 | 313.3 | 1.117E-04 | 1.504E-04 | 1.117E-04 | | |
| F | 1.6 | 4.24 | 7300. | 0. | 0. | 0. | 222.6 | 40.9 | 313.3 | 1.595E-05 | 2.148E-05 | 1.595E-05 | | |
| F | 3.3 | 0.23 | 7300. | 0. | 0. | 0. | 222.6 | 40.9 | 255.8 | 9.119E-06 | 1.002E-05 | 9.119E-06 | | |
| G | 0.2 | 0.01 | 7300. | 0. | 0. | 0. | 153.6 | 24.8 | 257.9 | 2.237E-04 | 3.389E-04 | 2.237E-04 | | |
| G | 1.6 | 1.14 | 7300. | 0. | 0. | 0. | 153.6 | 24.8 | 257.9 | 3.195E-05 | 4.842E-05 | 3.195E-05 | | |
| G | 3.3 | 0.03 | 7300. | 0. | 0. | 0. | 153.6 | 24.8 | 187.1 | 2.056E-05 | 2.260E-05 | 2.056E-05 | | |

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1355 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Ground Release

SOURCE OF DATA:

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 10.1 meters

DELTA-T HEIGHTS: 10.1-45.7 meters

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

S SECTOR BOUNDARY DISTANCE = 7300.0 METERS

LATERAL PLUME MEANDER/BUILDING WAKE CREDIT ALLOWED

AS A FUNCTION OF DOWNWIND DISTANCE.

MEANDER CREDIT IS FOR WINDSPEEDS LESS THAN 6 MPS.

BUILDING WAKE CREDIT ALLOWED: C= 0.5 A= 2584. D= 54.3

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

| | | | | | | | | | |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 2.237E-04 | 1.117E-04 | 5.173E-05 | 3.195E-05 | 2.494E-05 | 2.056E-05 | 1.595E-05 | 9.119E-06 | 7.390E-06 | 3.956E-06 |
| 0.009 | 0.041 | 0.161 | 1.304 | 1.333 | 1.366 | 5.610 | 5.839 | 22.719 | 37.346 |
| 0.00065 | 0.00292 | 0.01154 | 0.09337 | 0.09546 | 0.09780 | 0.40172 | 0.41809 | 1.62677 | 2.67413 |
| 3.563E-06 | 2.582E-06 | 1.781E-06 | 1.745E-06 | 1.124E-06 | 8.459E-07 | 7.595E-07 | 5.869E-07 | 3.947E-07 | 2.555E-07 |
| 50.046 | 52.430 | 71.073 | 71.203 | 78.386 | 79.431 | 80.182 | 80.214 | 82.108 | 82.173 |
| 3.58356 | 3.75423 | 5.08915 | 5.09850 | 5.61283 | 5.68765 | 5.74142 | 5.74375 | 5.87935 | 5.88403 |
| 2.498E-07 | 2.368E-07 | 2.039E-07 | 1.600E-07 | 1.166E-07 | 9.514E-08 | 6.995E-08 | 5.708E-08 | 4.727E-08 | 3.857E-08 |
| 84.132 | 84.655 | 87.528 | 87.561 | 92.262 | 97.747 | 98.988 | 99.902 | 99.967 | 100.000 |
| 6.02430 | 6.06171 | 6.26744 | 6.26977 | 6.60643 | 6.99919 | 7.08803 | 7.15349 | 7.15817 | 7.16050 |

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

| | | | |
|------------------|------------------------------------|--------------|-------|
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE (2) = | 1.625 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE (3) = | 3.580 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE (4) = | 5.085 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE (5) = | 5.609 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE (6) = | 6.264 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE (7) = | 6.995 |

K I XQSAVE(K,I) XQINT(K,I) XQSLOP(K,I)

1 1 -8.40538 -15.09581 -1.53422

| | | | | |
|---|---|-----------|--------------|-----------|
| 1 | 2 | -11.81533 | -16.44928 | -2.16721 |
| 1 | 3 | -12.54483 | -20.11912 | -4.20419 |
| 1 | 4 | -13.23843 | -28.87754 | -9.55570 |
| 1 | 5 | -13.69861 | -62.60479 | -30.78827 |
| 1 | 6 | -15.40582 | -35.94715 | -13.39928 |
| 1 | 7 | -16.16796 | NUMXQ(K) = 7 | |
| | | 3.702E-05 | 0.072 | 1.000 |
| | | 2.223E-05 | 0.215 | 3.000 |
| | | 1.722E-05 | 0.358 | 5.000 |
| | | 1.192E-05 | 0.716 | 10.000 |
| | | 9.470E-06 | 1.074 | 15.000 |
| | | 7.987E-06 | 1.432 | 20.000 |
| | | 6.797E-06 | 1.790 | 25.000 |
| | | 5.776E-06 | 2.148 | 30.000 |
| | | 5.015E-06 | 2.506 | 35.000 |
| | | 4.425E-06 | 2.864 | 40.000 |
| | | 3.953E-06 | 3.222 | 45.000 |
| | | 3.567E-06 | 3.580 | 50.000 |
| | | 2.970E-06 | 3.938 | 55.000 |
| | | 2.504E-06 | 4.296 | 60.000 |
| | | 2.134E-06 | 4.654 | 65.000 |
| | | 1.837E-06 | 5.012 | 70.000 |
| | | 1.385E-06 | 5.370 | 75.000 |
| | | 8.224E-07 | 5.728 | 80.000 |
| | | 3.221E-07 | 6.086 | 85.000 |
| | | 1.685E-07 | 6.444 | 90.000 |
| | | 1.447E-05 | 0.5 | 6.98 |

ANNUAL AVERAGE = 1.50E-07

K= 1 FIVEXQ(K) = 1.447E-05 FIVEPR(K) = 6.983

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 01/28/03

Page 1357 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Ground Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 10.1 meters

DELTA-T HEIGHTS: 10.1-45.7 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE SSW SECTOR.

| STABILITY WINDSPEED FREQUENCY DISTANCE TERRAIN HT EFF PLUME HT | | | | | | | | | | ** CHI/Q VALUES (SEC/CUBIC METER) | | |
|--|-----------|---------|--------|--------|--------|--------|--------|--------|--------|-----------------------------------|-----------|-----------|
| CLASS | METER/SEC | PERCENT | METERS | METERS | METERS | METERS | METERS | METERS | METERS | MEANDER | BLDG WAKE | USED |
| AT 10.0 METERS | | | | | | | | | | CA=1292.SQ.METERS | | |
| A | 1.6 | 8.88 | 7300. | 0. | 0. | 1000.0 | 1000.0 | 1000.0 | 1000.0 | 2.039E-07 | 2.039E-07 | 2.039E-07 |
| A | 3.3 | 5.37 | 7300. | 0. | 0. | 1000.0 | 1000.0 | 1000.0 | 1000.0 | 9.517E-08 | 9.514E-08 | 9.514E-08 |
| A | 5.6 | 0.07 | 7300. | 0. | 0. | 1000.0 | 1000.0 | 1000.0 | 1000.0 | 5.710E-08 | 5.708E-08 | 5.708E-08 |
| A | 24.5 | 0.07 | 7300. | 0. | 0. | 1000.0 | 1000.0 | 1000.0 | 1000.0 | 1.298E-08 | 1.297E-08 | 1.297E-08 |
| B | 1.6 | 3.71 | 7300. | 0. | 0. | 848.1 | 962.0 | 848.1 | 848.1 | 2.500E-07 | 2.498E-07 | 2.498E-07 |
| B | 3.3 | 2.65 | 7300. | 0. | 0. | 848.1 | 962.0 | 848.1 | 848.1 | 1.166E-07 | 1.166E-07 | 1.166E-07 |
| B | 5.6 | 0.13 | 7300. | 0. | 0. | 848.1 | 962.0 | 848.1 | 848.1 | 6.999E-08 | 6.995E-08 | 6.995E-08 |
| C | 1.6 | 3.05 | 7300. | 0. | 0. | 644.0 | 373.7 | 644.0 | 644.0 | 8.473E-07 | 8.459E-07 | 8.459E-07 |
| C | 3.3 | 0.66 | 7300. | 0. | 0. | 644.0 | 373.7 | 644.0 | 644.0 | 3.954E-07 | 3.947E-07 | 3.947E-07 |
| C | 5.6 | 0.07 | 7300. | 0. | 0. | 644.0 | 373.7 | 644.0 | 644.0 | 2.372E-07 | 2.368E-07 | 2.368E-07 |
| D | 0.2 | 0.05 | 7300. | 0. | 0. | 453.5 | 111.1 | 515.1 | 515.1 | 2.494E-05 | 2.810E-05 | 2.494E-05 |
| D | 1.6 | 22.39 | 7300. | 0. | 0. | 453.5 | 111.1 | 515.1 | 515.1 | 3.563E-06 | 4.014E-06 | 3.563E-06 |
| D | 3.3 | 10.60 | 7300. | 0. | 0. | 453.5 | 111.1 | 481.0 | 481.0 | 1.781E-06 | 1.873E-06 | 1.781E-06 |
| D | 5.6 | 0.53 | 7300. | 0. | 0. | 453.5 | 111.1 | 456.4 | 456.4 | 1.126E-06 | 1.124E-06 | 1.124E-06 |
| E | 0.2 | 0.20 | 7300. | 0. | 0. | 322.5 | 67.5 | 410.0 | 410.0 | 5.173E-05 | 6.456E-05 | 5.173E-05 |
| E | 1.6 | 27.56 | 7300. | 0. | 0. | 322.5 | 67.5 | 410.0 | 410.0 | 7.390E-06 | 9.223E-06 | 7.390E-06 |
| E | 3.3 | 6.09 | 7300. | 0. | 0. | 322.5 | 67.5 | 357.4 | 357.4 | 3.956E-06 | 4.304E-06 | 3.956E-06 |
| E | 5.6 | 0.26 | 7300. | 0. | 0. | 322.5 | 67.5 | 325.9 | 325.9 | 2.603E-06 | 2.582E-06 | 2.582E-06 |
| F | 0.2 | 0.04 | 7300. | 0. | 0. | 222.6 | 40.9 | 313.3 | 313.3 | 1.117E-04 | 1.504E-04 | 1.117E-04 |
| F | 1.6 | 5.37 | 7300. | 0. | 0. | 222.6 | 40.9 | 313.3 | 313.3 | 1.595E-05 | 2.148E-05 | 1.595E-05 |
| G | 0.2 | 0.02 | 7300. | 0. | 0. | 153.6 | 24.8 | 257.9 | 257.9 | 2.237E-04 | 3.389E-04 | 2.237E-04 |
| G | 1.6 | 1.99 | 7300. | 0. | 0. | 153.6 | 24.8 | 257.9 | 257.9 | 3.195E-05 | 4.842E-05 | 3.195E-05 |
| G | 3.3 | 0.26 | 7300. | 0. | 0. | 153.6 | 24.8 | 187.1 | 187.1 | 2.056E-05 | 2.260E-05 | 2.056E-05 |

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1358 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 10.1 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.1 45.7 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

SSW SECTOR BOUNDARY DISTANCE = 7300.0 METERS

LATERAL PLUME MEANDER/BUILDING WAKE CREDIT ALLOWED

AS A FUNCTION OF DOWNWIND DISTANCE.

MEANDER CREDIT IS FOR WINDSPEEDS LESS THAN 6 MPS.

BUILDING WAKE CREDIT ALLOWED: C= 0.5 A= 2584. D= 54.3

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

| | | | | | | | | | |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 2.237E-04 | 1.117E-04 | 5.173E-05 | 3.195E-05 | 2.494E-05 | 2.056E-05 | 1.595E-05 | 7.390E-06 | 3.956E-06 | 3.563E-06 |
| 0.016 | 0.056 | 0.252 | 2.240 | 2.291 | 2.556 | 7.922 | 35.479 | 41.574 | 63.964 |
| 0.00056 | 0.00197 | 0.00891 | 0.07904 | 0.08087 | 0.09022 | 0.27959 | 1.25214 | 1.46722 | 2.25742 |
| 2.582E-06 | 1.781E-06 | 1.124E-06 | 8.459E-07 | 3.947E-07 | 2.498E-07 | 2.368E-07 | 2.039E-07 | 1.166E-07 | 9.514E-08 |
| 64.229 | 74.828 | 75.358 | 78.405 | 79.067 | 82.777 | 82.843 | 91.720 | 94.369 | 99.735 |
| 2.26677 | 2.64083 | 2.65954 | 2.76708 | 2.79046 | 2.92138 | 2.92371 | 3.23699 | 3.33050 | 3.51987 |
| 6.995E-08 | 5.708E-08 | 1.297E-08 | | | | | | | |
| 99.868 | 99.934 | 100.000 | | | | | | | |
| 3.52455 | 3.52689 | 3.52922 | | | | | | | |

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

| CHI/Q | WITH RESPECT TO | WHEN THE WIND BLOWS |
|-----------------|-----------------|-----------------------|
| SEC/CUBIC METER | THE TOTAL TIME | INTO THIS SECTOR ONLY |

| | | | |
|------------------|------------------------------------|------------|-------|
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(2)= | 0.079 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(3)= | 1.251 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(4)= | 2.255 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(5)= | 2.638 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(6)= | 3.517 |

| K | I | XQSAVE(K,I) | XQINT(K,I) | XQSLOP(K,I) |
|---|---|-------------|------------|-------------|
| 2 | 1 | -8.40538 | -15.33090 | -1.57598 |
| 2 | 2 | -10.35129 | -15.38766 | -1.59395 |

Calculation No. PM-1055 Revision 0

Attachment J

Page 1359 of 1411

2 3 -11.81533 -18.69992 -3.07185
 2 4 -12.54483 -33.33123 -10.37398
 2 5 -13.23843 -57.88254 -23.04991
 2 6 -16.16796 NUMXQ(K)= 6

| | | |
|-----------|-------|--------|
| 4.575E-05 | 0.035 | 1.000 |
| 2.785E-05 | 0.106 | 3.000 |
| 2.173E-05 | 0.176 | 5.000 |
| 1.522E-05 | 0.353 | 10.000 |
| 1.222E-05 | 0.529 | 15.000 |
| 1.039E-05 | 0.706 | 20.000 |
| 9.124E-06 | 0.882 | 25.000 |
| 8.185E-06 | 1.059 | 30.000 |
| 7.452E-06 | 1.235 | 35.000 |
| 6.402E-06 | 1.412 | 40.000 |
| 5.548E-06 | 1.588 | 45.000 |
| 4.870E-06 | 1.765 | 50.000 |
| 4.322E-06 | 1.941 | 55.000 |
| 3.869E-06 | 2.118 | 60.000 |
| 3.321E-06 | 2.294 | 65.000 |
| 2.397E-06 | 2.470 | 70.000 |
| 1.740E-06 | 2.647 | 75.000 |
| 9.124E-07 | 2.823 | 80.000 |
| 4.943E-07 | 3.000 | 85.000 |
| 2.757E-07 | 3.176 | 90.000 |
| 1.261E-05 | 0.5 | 14.17 |

ANNUAL AVERAGE = 9.86E-08

K= 2 FIVEXQ(K)= 1.261E-05 FIVEPR(K)=14.167

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1360 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Ground Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 10.1 meters

DELTA-T HEIGHTS: 10.1-45.7 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE SW SECTOR

| STABILITY | WINDSPEED | FREQUENCY | DISTANCE | TERRAIN HT | EFF PLUME HT | SIGMA-Y | SIGMA-Z | MEANDER-SY | CHI/Q VALUES (SEC/CUBIC METER) | BLDG WAKE | USED |
|----------------|-----------|-----------|----------|------------|--------------|---------|---------|------------|--------------------------------|-------------------|-----------|
| CLASS | METER/SEC | PERCENT | METERS | METERS | METERS | METERS | METERS | METERS | MEANDER | CA=1292.SQ.METERS | |
| AT 10.0 METERS | | | | | | | | | | | |
| A | 1.6 | 10.17 | 7300. | 0. | 0. | 1000.0 | 1000.0 | 1000.0 | 2.039E-07 | 2.039E-07 | 2.039E-07 |
| A | 3.3 | 2.24 | 7300. | 0. | 0. | 1000.0 | 1000.0 | 1000.0 | 9.517E-08 | 9.514E-08 | 9.514E-08 |
| A | 5.6 | 0.07 | 7300. | 0. | 0. | 1000.0 | 1000.0 | 1000.0 | 5.710E-08 | 5.708E-08 | 5.708E-08 |
| A | 24.5 | 0.07 | 7300. | 0. | 0. | 1000.0 | 1000.0 | 1000.0 | 1.298E-08 | 1.297E-08 | 1.297E-08 |
| B | 1.6 | 4.62 | 7300. | 0. | 0. | 848.1 | 962.0 | 848.1 | 2.500E-07 | 2.498E-07 | 2.498E-07 |
| B | 3.3 | 0.79 | 7300. | 0. | 0. | 848.1 | 962.0 | 848.1 | 1.166E-07 | 1.166E-07 | 1.166E-07 |
| C | 1.6 | 1.88 | 7300. | 0. | 0. | 644.0 | 373.7 | 644.0 | 8.473E-07 | 8.459E-07 | 8.459E-07 |
| C | 3.3 | 0.22 | 7300. | 0. | 0. | 644.0 | 373.7 | 644.0 | 3.954E-07 | 3.947E-07 | 3.947E-07 |
| D | 0.2 | 0.07 | 7300. | 0. | 0. | 453.5 | 111.1 | 515.1 | 2.494E-05 | 2.810E-05 | 2.494E-05 |
| D | 1.6 | 31.54 | 7300. | 0. | 0. | 453.5 | 111.1 | 515.1 | 3.563E-06 | 4.014E-06 | 3.563E-06 |
| D | 3.3 | 4.76 | 7300. | 0. | 0. | 453.5 | 111.1 | 481.0 | 1.781E-06 | 1.873E-06 | 1.781E-06 |
| E | 0.2 | 0.21 | 7300. | 0. | 0. | 322.5 | 67.5 | 410.0 | 5.173E-05 | 6.456E-05 | 5.173E-05 |
| E | 1.6 | 29.95 | 7300. | 0. | 0. | 322.5 | 67.5 | 410.0 | 7.390E-06 | 9.223E-06 | 7.390E-06 |
| E | 3.3 | 5.48 | 7300. | 0. | 0. | 322.5 | 67.5 | 357.4 | 3.956E-06 | 4.304E-06 | 3.956E-06 |
| E | 5.6 | 0.07 | 7300. | 0. | 0. | 322.5 | 67.5 | 325.9 | 2.603E-06 | 2.582E-06 | 2.582E-06 |
| F | 0.2 | 0.04 | 7300. | 0. | 0. | 222.6 | 40.9 | 313.3 | 1.117E-04 | 1.504E-04 | 1.117E-04 |
| F | 1.6 | 5.34 | 7300. | 0. | 0. | 222.6 | 40.9 | 313.3 | 1.595E-05 | 2.148E-05 | 1.595E-05 |
| F | 3.3 | 0.36 | 7300. | 0. | 0. | 222.6 | 40.9 | 255.8 | 9.119E-06 | 1.002E-05 | 9.119E-06 |
| G | 0.2 | 0.02 | 7300. | 0. | 0. | 153.6 | 24.8 | 257.9 | 2.237E-04 | 3.389E-04 | 2.237E-04 |
| G | 1.6 | 2.09 | 7300. | 0. | 0. | 153.6 | 24.8 | 257.9 | 3.195E-05 | 4.842E-05 | 3.195E-05 |

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1361 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 10.1 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.1-45.7 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

SW SECTOR BOUNDARY DISTANCE = 7300.0 METERS

LATERAL PLUME MEANDER/BUILDING WAKE CREDIT ALLOWED

AS A FUNCTION OF DOWNWIND DISTANCE.

MEANDER CREDIT IS FOR WINDSPEEDS LESS THAN 6 MPS.

BUILDING WAKE CREDIT ALLOWED: C= 0.5 A= 2584. D= 54.3

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

| | | | | | | | | | |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 2.237E-04 | 1.117E-04 | 5.173E-05 | 3.195E-05 | 2.494E-05 | 1.595E-05 | 9.119E-06 | 7.390E-06 | 3.956E-06 | 3.563E-06 |
| 0.017 | 0.056 | 0.270 | 2.363 | 2.436 | 7.776 | 8.136 | 38.084 | 43.568 | 75.104 |
| 0.00054 | 0.00183 | 0.00875 | 0.07655 | 0.07891 | 0.25191 | 0.26360 | 1.23381 | 1.41149 | 2.43314 |
| 2.582E-06 | 1.781E-06 | 8.459E-07 | 3.947E-07 | 2.498E-07 | 2.039E-07 | 1.166E-07 | 9.514E-08 | 5.708E-08 | 1.297E-08 |
| 75.176 | 79.939 | 81.815 | 82.031 | 86.650 | 96.825 | 97.619 | 99.856 | 99.928 | 100.000 |
| 2.43548 | 2.58978 | 2.65056 | 2.65757 | 2.80720 | 3.13684 | 3.16255 | 3.23503 | 3.23737 | 3.23970 |

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE

ORDERED X/Q-FREQUENCY VALUES, AND AS

PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

| CHI/Q | WITH RESPECT TO | WHEN THE WIND BLOWS |
|-----------------|-----------------|-----------------------|
| SEC/CUBIC METER | THE TOTAL TIME | INTO THIS SECTOR ONLY |

| | | | |
|------------------|------------------------------------|-------------|-------|
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(2) = | 0.076 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(3) = | 1.232 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(4) = | 2.431 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(5) = | 3.134 |

| K | I | XQSAVE(K,I) | XQINT(K,I) | XQSLOP(K,I) |
|---|---|-------------|--------------|-------------|
| 3 | 1 | -8.40538 | -15.35362 | -1.57851 |
| 3 | 2 | -10.35129 | -15.38259 | -1.58765 |
| 3 | 3 | -11.81533 | -17.77768 | -2.65362 |
| 3 | 4 | -12.54483 | -63.60229 | -25.89164 |
| 3 | 5 | -15.40582 | NUMXQ(K) = 5 | |
| | | 4.681E-05 | 0.032 | 1.000 |
| | | 2.859E-05 | 0.097 | 3.000 |

| | | |
|-----------|-------|--------|
| 2.237E-05 | 0.162 | 5.000 |
| 1.573E-05 | 0.324 | 10.000 |
| 1.266E-05 | 0.486 | 15.000 |
| 1.079E-05 | 0.648 | 20.000 |
| 9.497E-06 | 0.810 | 25.000 |
| 8.533E-06 | 0.972 | 30.000 |
| 7.780E-06 | 1.134 | 35.000 |
| 7.027E-06 | 1.296 | 40.000 |
| 6.218E-06 | 1.458 | 45.000 |
| 5.564E-06 | 1.620 | 50.000 |
| 5.025E-06 | 1.782 | 55.000 |
| 4.572E-06 | 1.944 | 60.000 |
| 4.188E-06 | 2.106 | 65.000 |
| 3.857E-06 | 2.268 | 70.000 |
| 3.569E-06 | 2.430 | 75.000 |
| 1.769E-06 | 2.592 | 80.000 |
| 8.974E-07 | 2.754 | 85.000 |
| 4.702E-07 | 2.916 | 90.000 |

| | | |
|-----------|-----|-------|
| 1.247E-05 | 0.5 | 15.43 |
|-----------|-----|-------|

ANNUAL AVERAGE = 1.00E-07

K= 3 FIVEXQ(K)= 1.247E-05 FIVEPR(K)=15.434

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1363 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 10.1 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.1-45.7 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE WSW SECTOR.

| STABILITY | WINDSPEED | FREQUENCY | DISTANCE | TERRAIN | HT | EFF | PLUME | HT | SIGMA-Y | SIGMA-Z | MEANDER-SY | ** CHI/Q VALUES (SEC/CUBIC METER) | | |
|-----------|----------------|-----------|----------|---------|--------|--------|--------|--------|---------|-----------|------------|-----------------------------------|-----------|------|
| CLASS | METER/SEC | PERCENT | METERS | METERS | METERS | METERS | METERS | METERS | METERS | METERS | METERS | MEANDER | BLDG WAKE | USED |
| | AT 10.0 METERS | | | | | | | | | | | CA=1292.SQ.METERS | | |
| A | 1.6 | 11.29 | 7300. | 0. | 0. | 0. | 1000.0 | 1000.0 | 1000.0 | 2.039E-07 | 2.039E-07 | 2.039E-07 | | |
| A | 3.3 | 2.21 | 7300. | 0. | 0. | 0. | 1000.0 | 1000.0 | 1000.0 | 9.517E-08 | 9.514E-08 | 9.514E-08 | | |
| B | 1.6 | 5.29 | 7300. | 0. | 0. | 0. | 848.1 | 962.0 | 848.1 | 2.500E-07 | 2.498E-07 | 2.498E-07 | | |
| B | 3.3 | 1.18 | 7300. | 0. | 0. | 0. | 848.1 | 962.0 | 848.1 | 1.166E-07 | 1.166E-07 | 1.166E-07 | | |
| C | 1.6 | 3.79 | 7300. | 0. | 0. | 0. | 644.0 | 373.7 | 644.0 | 8.473E-07 | 8.459E-07 | 8.459E-07 | | |
| C | 3.3 | 0.63 | 7300. | 0. | 0. | 0. | 644.0 | 373.7 | 644.0 | 3.954E-07 | 3.947E-07 | 3.947E-07 | | |
| D | 0.2 | 0.06 | 7300. | 0. | 0. | 0. | 453.5 | 111.1 | 515.1 | 2.494E-05 | 2.810E-05 | 2.494E-05 | | |
| D | 1.6 | 25.11 | 7300. | 0. | 0. | 0. | 453.5 | 111.1 | 515.1 | 3.563E-06 | 4.014E-06 | 3.563E-06 | | |
| D | 3.3 | 2.76 | 7300. | 0. | 0. | 0. | 453.5 | 111.1 | 481.0 | 1.781E-06 | 1.873E-06 | 1.781E-06 | | |
| E | 0.2 | 0.22 | 7300. | 0. | 0. | 0. | 322.5 | 67.5 | 410.0 | 5.173E-05 | 6.456E-05 | 5.173E-05 | | |
| E | 1.6 | 30.24 | 7300. | 0. | 0. | 0. | 322.5 | 67.5 | 410.0 | 7.390E-06 | 9.223E-06 | 7.390E-06 | | |
| E | 3.3 | 5.84 | 7300. | 0. | 0. | 0. | 322.5 | 67.5 | 357.4 | 3.956E-06 | 4.304E-06 | 3.956E-06 | | |
| F | 0.2 | 0.05 | 7300. | 0. | 0. | 0. | 222.6 | 40.9 | 313.3 | 1.117E-04 | 1.504E-04 | 1.117E-04 | | |
| F | 1.6 | 7.26 | 7300. | 0. | 0. | 0. | 222.6 | 40.9 | 313.3 | 1.595E-05 | 2.148E-05 | 1.595E-05 | | |
| F | 3.3 | 0.16 | 7300. | 0. | 0. | 0. | 222.6 | 40.9 | 255.8 | 9.119E-06 | 1.002E-05 | 9.119E-06 | | |
| G | 0.2 | 0.03 | 7300. | 0. | 0. | 0. | 153.6 | 24.8 | 257.9 | 2.237E-04 | 3.389E-04 | 2.237E-04 | | |
| G | 1.6 | 3.87 | 7300. | 0. | 0. | 0. | 153.6 | 24.8 | 257.9 | 3.195E-05 | 4.842E-05 | 3.195E-05 | | |

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1364 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 10.1 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.1-45.7 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

WSW SECTOR BOUNDARY DISTANCE = 7300.0 METERS

LATERAL PLUME MEANDER/BUILDING WAKE CREDIT ALLOWED

AS A FUNCTION OF DOWNWIND DISTANCE.

MEANDER CREDIT IS FOR WINDSPEEDS LESS THAN 6 MPS.

BUILDING WAKE CREDIT ALLOWED: C= 0.5 A= 2584. D= 54.3

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

| | | | | | | | | | |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 2.237E-04 | 1.117E-04 | 5.173E-05 | 3.195E-05 | 2.494E-05 | 1.595E-05 | 9.119E-06 | 7.390E-06 | 3.956E-06 | 3.563E-06 |
| 0.031 | 0.085 | 0.301 | 4.169 | 4.227 | 11.491 | 11.649 | 41.889 | 47.732 | 72.839 |
| 0.00091 | 0.00251 | 0.00890 | 0.12346 | 0.12517 | 0.34026 | 0.34493 | 1.24033 | 1.41334 | 2.15678 |
| 1.781E-06 | 8.459E-07 | 3.947E-07 | 2.498E-07 | 2.039E-07 | 1.166E-07 | 9.514E-08 | | | |
| 75.603 | 79.393 | 80.024 | 85.314 | 96.605 | 97.789 | 100.000 | | | |
| 2.23861 | 2.35082 | 2.36953 | 2.52616 | 2.86048 | 2.89555 | 2.96101 | | | |

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE

ORDERED X/Q-FREQUENCY VALUES, AND AS

PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 0.123
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(3)= 1.239
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(4)= 2.155

K I XQSAVE(K,I) XQINT(K,I) XQSLOP(K,I)

4 1 -8.40538 -15.02958 -1.54531

4 2 -10.35129 -16.01503 -1.87082

4 3 -11.81533 -19.19168 -3.28591

4 4 -12.54483 NUMXQ(K)= 4

6.002E-05 0.030 1.000

3.718E-05 0.089 3.000

2.881E-05 0.148 5.000

1.910E-05 0.296 10.000

Calculation No. PM-1055 Revision 0**Attachment J****Page 1365 of 1411**

| | | |
|-----------|-------|--------|
| 1.482E-05 | 0.444 | 15.000 |
| 1.230E-05 | 0.592 | 20.000 |
| 1.060E-05 | 0.740 | 25.000 |
| 9.356E-06 | 0.888 | 30.000 |
| 8.401E-06 | 1.036 | 35.000 |
| 7.640E-06 | 1.184 | 40.000 |
| 6.746E-06 | 1.332 | 45.000 |
| 5.889E-06 | 1.481 | 50.000 |
| 5.198E-06 | 1.629 | 55.000 |
| 4.632E-06 | 1.777 | 60.000 |
| 4.161E-06 | 1.925 | 65.000 |
| 3.763E-06 | 2.073 | 70.000 |
| 1.374E-05 | 0.5 | 16.89 |

ANNUAL AVERAGE = 9.60E-08

K= 4 FIVEXQ(K)= 1.374E-05 FIVEPR(K)=16.886

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 01/28/03

Page 1366 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Ground Release

SOURCE OF DATA:

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 10.1 meters

DELTA-T HEIGHTS: 10.1-45.7 meters

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE W SECTOR.

| STABILITY | WINDSPEED | FREQUENCY | DISTANCE | TERRAIN HT | EFF PLUME HT | SIGMA-Y | SIGMA-Z | MEANDER-SY | ** CHI/Q VALUES (SEC/CUBIC METER) | MEANDER | BLDG WAKE | USED |
|-------------------|-----------|-----------|----------|------------|--------------|---------|---------|------------|-----------------------------------|-----------|-----------|------|
| CLASS | METER/SEC | PERCENT | METERS | METERS | METERS | METERS | METERS | METERS | MEANDER | BLDG WAKE | USED | |
| AT 10.0 METERS | | | | | | | | | | | | |
| CA=1292.SQ.METERS | | | | | | | | | | | | |
| A | 1.6 | 6.63 | 7300. | 0. | 0. | 1000.0 | 1000.0 | 1000.0 | 2.039E-07 | 2.039E-07 | 2.039E-07 | |
| A | 3.3 | 2.86 | 7300. | 0. | 0. | 1000.0 | 1000.0 | 1000.0 | 9.517E-08 | 9.514E-08 | 9.514E-08 | |
| A | 24.5 | 0.13 | 7300. | 0. | 0. | 1000.0 | 1000.0 | 1000.0 | 1.298E-08 | 1.297E-08 | 1.297E-08 | |
| B | 1.6 | 3.97 | 7300. | 0. | 0. | 848.1 | 962.0 | 848.1 | 2.500E-07 | 2.498E-07 | 2.498E-07 | |
| B | 3.3 | 0.78 | 7300. | 0. | 0. | 848.1 | 962.0 | 848.1 | 1.166E-07 | 1.166E-07 | 1.166E-07 | |
| B | 5.6 | 0.07 | 7300. | 0. | 0. | 848.1 | 962.0 | 848.1 | 6.999E-08 | 6.995E-08 | 6.995E-08 | |
| C | 1.6 | 2.28 | 7300. | 0. | 0. | 644.0 | 373.7 | 644.0 | 8.473E-07 | 8.459E-07 | 8.459E-07 | |
| C | 3.3 | 0.59 | 7300. | 0. | 0. | 644.0 | 373.7 | 644.0 | 3.954E-07 | 3.947E-07 | 3.947E-07 | |
| C | 5.6 | 0.07 | 7300. | 0. | 0. | 644.0 | 373.7 | 644.0 | 2.372E-07 | 2.368E-07 | 2.368E-07 | |
| D | 0.2 | 0.04 | 7300. | 0. | 0. | 453.5 | 111.1 | 515.1 | 2.494E-05 | 2.810E-05 | 2.494E-05 | |
| D | 1.6 | 19.25 | 7300. | 0. | 0. | 453.5 | 111.1 | 515.1 | 3.563E-06 | 4.014E-06 | 3.563E-06 | |
| D | 3.3 | 4.23 | 7300. | 0. | 0. | 453.5 | 111.1 | 481.0 | 1.781E-06 | 1.873E-06 | 1.781E-06 | |
| D | 5.6 | 0.13 | 7300. | 0. | 0. | 453.5 | 111.1 | 456.4 | 1.126E-06 | 1.124E-06 | 1.124E-06 | |
| E | 0.2 | 0.24 | 7300. | 0. | 0. | 322.5 | 67.5 | 410.0 | 5.173E-05 | 6.456E-05 | 5.173E-05 | |
| E | 1.6 | 33.50 | 7300. | 0. | 0. | 322.5 | 67.5 | 410.0 | 7.390E-06 | 9.223E-06 | 7.390E-06 | |
| E | 3.3 | 6.89 | 7300. | 0. | 0. | 322.5 | 67.5 | 357.4 | 3.956E-06 | 4.304E-06 | 3.956E-06 | |
| E | 5.6 | 0.39 | 7300. | 0. | 0. | 322.5 | 67.5 | 325.9 | 2.603E-06 | 2.582E-06 | 2.582E-06 | |
| F | 0.2 | 0.09 | 7300. | 0. | 0. | 222.6 | 40.9 | 313.3 | 1.117E-04 | 1.504E-04 | 1.117E-04 | |
| F | 1.6 | 11.71 | 7300. | 0. | 0. | 222.6 | 40.9 | 313.3 | 1.595E-05 | 2.148E-05 | 1.595E-05 | |
| F | 3.3 | 0.20 | 7300. | 0. | 0. | 222.6 | 40.9 | 255.8 | 9.119E-06 | 1.002E-05 | 9.119E-06 | |
| G | 0.2 | 0.05 | 7300. | 0. | 0. | 153.6 | 24.8 | 257.9 | 2.237E-04 | 3.389E-04 | 2.237E-04 | |
| G | 1.6 | 5.72 | 7300. | 0. | 0. | 153.6 | 24.8 | 257.9 | 3.195E-05 | 4.842E-05 | 3.195E-05 | |
| G | 3.3 | 0.20 | 7300. | 0. | 0. | 153.6 | 24.8 | 187.1 | 2.056E-05 | 2.260E-05 | 2.056E-05 | |

Calculation No. PM-1055 Revision 0

Attachment J

Page 1367 of 1411

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 10.1 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.1-45.7 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

W SECTOR BOUNDARY DISTANCE = 7300.0 METERS

LATERAL PLUME MEANDER/BUILDING WAKE CREDIT ALLOWED

AS A FUNCTION OF DOWNWIND DISTANCE.

MEANDER CREDIT IS FOR WINDSPEEDS LESS THAN 6 MPS.

BUILDING WAKE CREDIT ALLOWED: C= 0.5 A= 2584. D= 54.3

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

| | | | | | | | | | |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 2.237E-04 | 1.117E-04 | 5.173E-05 | 3.195E-05 | 2.494E-05 | 2.056E-05 | 1.595E-05 | 9.119E-06 | 7.390E-06 | 3.956E-06 |
| 0.045 | 0.133 | 0.372 | 6.096 | 6.140 | 6.335 | 18.043 | 18.238 | 51.737 | 58.631 |
| 0.00163 | 0.00477 | 0.01336 | 0.21909 | 0.22069 | 0.22770 | 0.64852 | 0.65553 | 1.85954 | 2.10735 |
| 3.563E-06 | 2.582E-06 | 1.781E-06 | 1.124E-06 | 8.459E-07 | 3.947E-07 | 2.498E-07 | 2.368E-07 | 2.039E-07 | 1.166E-07 |
| 77.885 | 78.275 | 82.503 | 82.633 | 84.910 | 85.495 | 89.463 | 89.528 | 96.162 | 96.943 |
| 2.79936 | 2.81339 | 2.96535 | 2.97002 | 3.05185 | 3.07289 | 3.21550 | 3.21784 | 3.45630 | 3.48435 |
| 9.514E-08 | 6.995E-08 | 1.297E-08 | | | | | | | |
| 99.805 | 99.870 | 100.000 | | | | | | | |
| 3.58722 | 3.58956 | 3.59423 | | | | | | | |

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE
ORDERED X/Q-FREQUENCY VALUES, AND AS
PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

| CHI/Q | WITH RESPECT TO | WHEN THE WIND BLOWS |
|-----------------|-----------------|-----------------------|
| SEC/CUBIC METER | THE TOTAL TIME | INTO THIS SECTOR ONLY |

| | | | |
|------------------|------------------------------------|-------------|-------|
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(2) = | 0.219 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(3) = | 0.648 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(4) = | 1.858 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(5) = | 2.797 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(6) = | 2.963 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(7) = | 3.453 |

| K | I | XQSAVE(K,I) | XQINT(K,I) | XQSLOP(K,I) |
|---|---|-------------|------------|-------------|
| 5 | 1 | -8.40538 | -14.60021 | -1.49104 |

| | | | | |
|---|---|-----------|--------------|-----------|
| 5 | 2 | -10.35129 | -15.77918 | -1.90477 |
| 5 | 3 | -11.04582 | -15.81571 | -1.91947 |
| 5 | 4 | -11.81533 | -20.62666 | -4.22787 |
| 5 | 5 | -12.54483 | -65.09892 | -27.49278 |
| 5 | 6 | -13.23843 | -73.07284 | -31.71999 |
| 5 | 7 | -15.40582 | NUMXQ(K) = 7 | |
| | | 7.072E-05 | 0.036 | 1.000 |
| | | 4.425E-05 | 0.108 | 3.000 |
| | | 3.507E-05 | 0.180 | 5.000 |
| | | 2.350E-05 | 0.359 | 10.000 |
| | | 1.806E-05 | 0.539 | 15.000 |
| | | 1.486E-05 | 0.719 | 20.000 |
| | | 1.271E-05 | 0.899 | 25.000 |
| | | 1.115E-05 | 1.078 | 30.000 |
| | | 9.957E-06 | 1.258 | 35.000 |
| | | 9.009E-06 | 1.438 | 40.000 |
| | | 8.236E-06 | 1.617 | 45.000 |
| | | 7.590E-06 | 1.797 | 50.000 |
| | | 6.646E-06 | 1.977 | 55.000 |
| | | 5.705E-06 | 2.157 | 60.000 |
| | | 4.948E-06 | 2.336 | 65.000 |
| | | 4.330E-06 | 2.516 | 70.000 |
| | | 3.819E-06 | 2.696 | 75.000 |
| | | 2.583E-06 | 2.875 | 80.000 |
| | | 1.173E-06 | 3.055 | 85.000 |
| | | 5.240E-07 | 3.235 | 90.000 |
| | | 1.898E-05 | 0.5 | 13.91 |

ANNUAL AVERAGE = 1.35E-07

K= 5 FIVEXQ(K) = 1.898E-05 FIVEPR(K) = 13.911

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1369 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 10.1 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.1-45.7 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE WNW SECTOR.

| STABILITY | WINDSPEED | FREQUENCY | DISTANCE | TERRAIN | HT | EFF | PLUME | HT | SIGMA-Y | SIGMA-Z | MEANDER-SY | ** CHI/Q VALUES (SEC/CUBIC METER) | | |
|----------------|-----------|-----------|----------|---------|--------|--------|--------|--------|-----------|-----------|------------|-----------------------------------|-----------|------|
| CLASS | METER/SEC | PERCENT | METERS | METERS | METERS | METERS | METERS | METERS | METERS | METERS | METERS | MEANDER | BLDG WAKE | USED |
| AT 10.0 METERS | | | | | | | | | | | | CA=1292.SQ.METERS | | |
| A | 1.6 | 4.94 | 7300. | 0. | 0. | 1000.0 | 1000.0 | 1000.0 | 2.039E-07 | 2.039E-07 | 2.039E-07 | | | |
| A | 3.3 | 6.06 | 7300. | 0. | 0. | 1000.0 | 1000.0 | 1000.0 | 9.517E-08 | 9.514E-08 | 9.514E-08 | | | |
| A | 5.6 | 0.50 | 7300. | 0. | 0. | 1000.0 | 1000.0 | 1000.0 | 5.710E-08 | 5.708E-08 | 5.708E-08 | | | |
| B | 1.6 | 2.75 | 7300. | 0. | 0. | 848.1 | 962.0 | 848.1 | 2.500E-07 | 2.498E-07 | 2.498E-07 | | | |
| B | 3.3 | 1.94 | 7300. | 0. | 0. | 848.1 | 962.0 | 848.1 | 1.166E-07 | 1.166E-07 | 1.166E-07 | | | |
| B | 5.6 | 0.38 | 7300. | 0. | 0. | 848.1 | 962.0 | 848.1 | 6.999E-08 | 6.995E-08 | 6.995E-08 | | | |
| C | 1.6 | 1.69 | 7300. | 0. | 0. | 644.0 | 373.7 | 644.0 | 8.473E-07 | 8.459E-07 | 8.459E-07 | | | |
| C | 3.3 | 0.63 | 7300. | 0. | 0. | 644.0 | 373.7 | 644.0 | 3.954E-07 | 3.947E-07 | 3.947E-07 | | | |
| C | 5.6 | 0.06 | 7300. | 0. | 0. | 644.0 | 373.7 | 644.0 | 2.372E-07 | 2.368E-07 | 2.368E-07 | | | |
| C | 8.2 | 0.06 | 7300. | 0. | 0. | 644.0 | 373.7 | 644.0 | 1.603E-07 | 1.600E-07 | 1.600E-07 | | | |
| D | 0.2 | 0.03 | 7300. | 0. | 0. | 453.5 | 111.1 | 515.1 | 2.494E-05 | 2.810E-05 | 2.494E-05 | | | |
| D | 1.6 | 10.94 | 7300. | 0. | 0. | 453.5 | 111.1 | 515.1 | 3.563E-06 | 4.014E-06 | 3.563E-06 | | | |
| D | 3.3 | 9.06 | 7300. | 0. | 0. | 453.5 | 111.1 | 481.0 | 1.781E-06 | 1.873E-06 | 1.781E-06 | | | |
| D | 5.6 | 0.50 | 7300. | 0. | 0. | 453.5 | 111.1 | 456.4 | 1.126E-06 | 1.124E-06 | 1.124E-06 | | | |
| E | 0.2 | 0.21 | 7300. | 0. | 0. | 322.5 | 67.5 | 410.0 | 5.173E-05 | 6.456E-05 | 5.173E-05 | | | |
| E | 1.6 | 29.38 | 7300. | 0. | 0. | 322.5 | 67.5 | 410.0 | 7.390E-06 | 9.223E-06 | 7.390E-06 | | | |
| E | 3.3 | 11.06 | 7300. | 0. | 0. | 322.5 | 67.5 | 357.4 | 3.956E-06 | 4.304E-06 | 3.956E-06 | | | |
| E | 5.6 | 1.06 | 7300. | 0. | 0. | 322.5 | 67.5 | 325.9 | 2.603E-06 | 2.582E-06 | 2.582E-06 | | | |
| F | 0.2 | 0.10 | 7300. | 0. | 0. | 222.6 | 40.9 | 313.3 | 1.117E-04 | 1.504E-04 | 1.117E-04 | | | |
| F | 1.6 | 14.00 | 7300. | 0. | 0. | 222.6 | 40.9 | 313.3 | 1.595E-05 | 2.148E-05 | 1.595E-05 | | | |
| F | 3.3 | 0.88 | 7300. | 0. | 0. | 222.6 | 40.9 | 255.8 | 9.119E-06 | 1.002E-05 | 9.119E-06 | | | |
| G | 0.2 | 0.03 | 7300. | 0. | 0. | 153.6 | 24.8 | 257.9 | 2.237E-04 | 3.389E-04 | 2.237E-04 | | | |
| G | 1.6 | 3.44 | 7300. | 0. | 0. | 153.6 | 24.8 | 257.9 | 3.195E-05 | 4.842E-05 | 3.195E-05 | | | |
| G | 3.3 | 0.31 | 7300. | 0. | 0. | 153.6 | 24.8 | 187.1 | 2.056E-05 | 2.260E-05 | 2.056E-05 | | | |

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1370 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 10.1 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.1-45.7 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

WNW SECTOR BOUNDARY DISTANCE = 7300.0 METERS

LATERAL PLUME MEANDER/BUILDING WAKE CREDIT ALLOWED

AS A FUNCTION OF DOWNWIND DISTANCE.

MEANDER CREDIT IS FOR WINDSPEEDS LESS THAN 6 MPS.

BUILDING WAKE CREDIT ALLOWED: C= 0.5 A= 2584. D= 54.3

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

| | | | | | | | | | |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 2.237E-04 | 1.117E-04 | 5.173E-05 | 3.195E-05 | 2.494E-05 | 2.056E-05 | 1.595E-05 | 9.119E-06 | 7.390E-06 | 3.956E-06 |
| 0.027 | 0.132 | 0.341 | 3.779 | 3.804 | 4.117 | 18.118 | 18.993 | 48.371 | 59.434 |
| 0.00102 | 0.00493 | 0.01277 | 0.14135 | 0.14230 | 0.15398 | 0.67767 | 0.71040 | 1.80920 | 2.22300 |
| 3.563E-06 | 2.582E-06 | 1.781E-06 | 1.124E-06 | 8.459E-07 | 3.947E-07 | 2.498E-07 | 2.368E-07 | 2.039E-07 | 1.600E-07 |
| 70.373 | 71.435 | 80.498 | 80.998 | 82.686 | 83.311 | 86.061 | 86.124 | 91.062 | 91.124 |
| 2.63213 | 2.67187 | 3.01086 | 3.02956 | 3.09269 | 3.11606 | 3.21893 | 3.22127 | 3.40596 | 3.40830 |
| 1.166E-07 | 9.514E-08 | 6.995E-08 | 5.708E-08 | | | | | | |
| 93.062 | 99.125 | 99.500 | 100.000 | | | | | | |
| 3.48077 | 3.70755 | 3.72157 | 3.74028 | | | | | | |

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

| CHI/Q | WITH RESPECT TO | WHEN THE WIND BLOWS |
|-----------------|-----------------|-----------------------|
| SEC/CUBIC METER | THE TOTAL TIME | INTO THIS SECTOR ONLY |

| | | | |
|------------------|------------------------------------|------------|-------|
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(2)= | 0.677 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(3)= | 1.807 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(4)= | 2.630 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(5)= | 3.008 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(6)= | 3.704 |

| K | I | XQSAVE(K,I) | XQINT(K,I) | XQSLOP(K,I) |
|---|---|-------------|------------|-------------|
| 6 | 1 | -8.40538 | -14.68508 | -1.47380 |
| 6 | 2 | -11.04582 | -16.12625 | -2.05743 |

Calculation No. PM-1055 Revision 0

Attachment J

Page 1371 of 1411

6 3 -11.81533 -21.54951 -4.64573
 6 4 -12.54483 -35.46656 -11.82587
 6 5 -13.23843 -72.10627 -31.31903
 6 6 -16.16796 NUMXQ(K)= 6

| | | |
|-----------|-------|--------|
| 6.030E-05 | 0.037 | 1.000 |
| 3.789E-05 | 0.112 | 3.000 |
| 3.008E-05 | 0.187 | 5.000 |
| 2.160E-05 | 0.374 | 10.000 |
| 1.761E-05 | 0.561 | 15.000 |
| 1.483E-05 | 0.748 | 20.000 |
| 1.253E-05 | 0.935 | 25.000 |
| 1.088E-05 | 1.122 | 30.000 |
| 9.630E-06 | 1.309 | 35.000 |
| 8.646E-06 | 1.496 | 40.000 |
| 7.849E-06 | 1.683 | 45.000 |
| 6.941E-06 | 1.870 | 50.000 |
| 5.784E-06 | 2.057 | 55.000 |
| 4.885E-06 | 2.244 | 60.000 |
| 4.174E-06 | 2.431 | 65.000 |
| 3.601E-06 | 2.618 | 70.000 |
| 2.570E-06 | 2.805 | 75.000 |
| 1.839E-06 | 2.992 | 80.000 |
| 8.366E-07 | 3.179 | 85.000 |
| 3.754E-07 | 3.366 | 90.000 |

| | | |
|-----------|-----|-------|
| 1.868E-05 | 0.5 | 13.37 |
|-----------|-----|-------|

ANNUAL AVERAGE = 1.27E-07

K= 6 FIVEXQ(K)= 1.868E-05 FIVEPR(K)=13.368

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1372 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Ground Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 10.1 meters

DELTA-T HEIGHTS: 10.1 45.7 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE NW SECTOR.

| STABILITY | WINDSPEED | FREQUENCY | DISTANCE | TERRAIN | HT | EFF | PLUME | HT | SIGMA-Y | SIGMA-Z | MEANDER-SY | ** CHI/Q VALUES (SEC/CUBIC METER) | | |
|----------------|-----------|-----------|----------|---------|--------|--------|--------|--------|---------|-----------|------------|-----------------------------------|-----------|------|
| CLASS | METER/SEC | PERCENT | METERS | METERS | METERS | METERS | METERS | METERS | METERS | METERS | METERS | MEANDER | BLDG WAKE | USED |
| AT 10.0 METERS | | | | | | | | | | | | CA=1292.SQ.METERS | | |
| A | 1.6 | 2.38 | 7300. | 0. | 0. | 0. | 1000.0 | 1000.0 | 1000.0 | 2.039E-07 | 2.039E-07 | 2.039E-07 | | |
| A | 3.3 | 5.19 | 7300. | 0. | 0. | 0. | 1000.0 | 1000.0 | 1000.0 | 9.517E-08 | 9.514E-08 | 9.514E-08 | | |
| A | 5.6 | 0.29 | 7300. | 0. | 0. | 0. | 1000.0 | 1000.0 | 1000.0 | 5.710E-08 | 5.708E-08 | 5.708E-08 | | |
| B | 1.6 | 1.10 | 7300. | 0. | 0. | 0. | 848.1 | 962.0 | 848.1 | 2.500E-07 | 2.498E-07 | 2.498E-07 | | |
| B | 3.3 | 2.67 | 7300. | 0. | 0. | 0. | 848.1 | 962.0 | 848.1 | 1.166E-07 | 1.166E-07 | 1.166E-07 | | |
| B | 5.6 | 0.43 | 7300. | 0. | 0. | 0. | 848.1 | 962.0 | 848.1 | 6.999E-08 | 6.995E-08 | 6.995E-08 | | |
| B | 24.5 | 0.05 | 7300. | 0. | 0. | 0. | 848.1 | 962.0 | 848.1 | 1.591E-08 | 1.590E-08 | 1.590E-08 | | |
| C | 1.6 | 0.52 | 7300. | 0. | 0. | 0. | 644.0 | 373.7 | 644.0 | 8.473E-07 | 8.459E-07 | 8.459E-07 | | |
| C | 3.3 | 1.57 | 7300. | 0. | 0. | 0. | 644.0 | 373.7 | 644.0 | 3.954E-07 | 3.947E-07 | 3.947E-07 | | |
| C | 5.6 | 0.24 | 7300. | 0. | 0. | 0. | 644.0 | 373.7 | 644.0 | 2.372E-07 | 2.368E-07 | 2.368E-07 | | |
| D | 0.2 | 0.02 | 7300. | 0. | 0. | 0. | 453.5 | 111.1 | 515.1 | 2.494E-05 | 2.810E-05 | 2.494E-05 | | |
| D | 1.6 | 7.33 | 7300. | 0. | 0. | 0. | 453.5 | 111.1 | 515.1 | 3.563E-06 | 4.014E-06 | 3.563E-06 | | |
| D | 3.3 | 18.14 | 7300. | 0. | 0. | 0. | 453.5 | 111.1 | 481.0 | 1.781E-06 | 1.873E-06 | 1.781E-06 | | |
| D | 5.6 | 3.67 | 7300. | 0. | 0. | 0. | 453.5 | 111.1 | 456.4 | 1.126E-06 | 1.124E-06 | 1.124E-06 | | |
| D | 8.2 | 0.10 | 7300. | 0. | 0. | 0. | 453.5 | 111.1 | 453.5 | 7.657E-07 | 7.595E-07 | 7.595E-07 | | |
| E | 0.2 | 0.18 | 7300. | 0. | 0. | 0. | 322.5 | 67.5 | 410.0 | 5.173E-05 | 6.456E-05 | 5.173E-05 | | |
| E | 1.6 | 25.85 | 7300. | 0. | 0. | 0. | 322.5 | 67.5 | 410.0 | 7.390E-06 | 9.223E-06 | 7.390E-06 | | |
| E | 3.3 | 18.81 | 7300. | 0. | 0. | 0. | 322.5 | 67.5 | 357.4 | 3.956E-06 | 4.304E-06 | 3.956E-06 | | |
| E | 5.6 | 2.48 | 7300. | 0. | 0. | 0. | 322.5 | 67.5 | 325.9 | 2.603E-06 | 2.582E-06 | 2.582E-06 | | |
| E | 8.2 | 0.05 | 7300. | 0. | 0. | 0. | 322.5 | 67.5 | 322.5 | 1.778E-06 | 1.745E-06 | 1.745E-06 | | |
| F | 0.2 | 0.05 | 7300. | 0. | 0. | 0. | 222.6 | 40.9 | 313.3 | 1.117E-04 | 1.504E-04 | 1.117E-04 | | |
| F | 1.6 | 6.14 | 7300. | 0. | 0. | 0. | 222.6 | 40.9 | 313.3 | 1.595E-05 | 2.148E-05 | 1.595E-05 | | |
| F | 3.3 | 1.14 | 7300. | 0. | 0. | 0. | 222.6 | 40.9 | 255.8 | 9.119E-06 | 1.002E-05 | 9.119E-06 | | |
| G | 0.2 | 0.01 | 7300. | 0. | 0. | 0. | 153.6 | 24.8 | 257.9 | 2.237E-04 | 3.389E-04 | 2.237E-04 | | |
| G | 1.6 | 1.52 | 7300. | 0. | 0. | 0. | 153.6 | 24.8 | 257.9 | 3.195E-05 | 4.842E-05 | 3.195E-05 | | |
| G | 3.3 | 0.10 | 7300. | 0. | 0. | 0. | 153.6 | 24.8 | 187.1 | 2.056E-05 | 2.260E-05 | 2.056E-05 | | |

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1373 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 10.1 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.1-45.7 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

NW SECTOR BOUNDARY DISTANCE = 7300.0 METERS

LATERAL PLUME MEANDER/BUILDING WAKE CREDIT ALLOWED

AS A FUNCTION OF DOWNWIND DISTANCE.

MEANDER CREDIT IS FOR WINDSPEEDS LESS THAN 6 MPS.

BUILDING WAKE CREDIT ALLOWED: C= 0.5 A= 2584. D= 54.3

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

| | | | | | | | | | |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 2.237E-04 | 1.117E-04 | 5.173E-05 | 3.195E-05 | 2.494E-05 | 2.056E-05 | 1.595E-05 | 9.119E-06 | 7.390E-06 | 3.956E-06 |
| 0.012 | 0.058 | 0.242 | 1.766 | 1.783 | 1.878 | 8.020 | 9.162 | 35.014 | 53.819 |
| 0.00059 | 0.00285 | 0.01190 | 0.08671 | 0.08754 | 0.09222 | 0.39380 | 0.44991 | 1.71938 | 2.64283 |
| 3.563E-06 | 2.582E-06 | 1.781E-06 | 1.745E-06 | 1.124E-06 | 8.459E-07 | 7.595E-07 | 3.947E-07 | 2.498E-07 | 2.368E-07 |
| 61.151 | 63.627 | 81.766 | 81.813 | 85.479 | 86.003 | 86.098 | 87.669 | 88.764 | 89.002 |
| 3.00287 | 3.12443 | 4.01516 | 4.01750 | 4.19752 | 4.22323 | 4.22791 | 4.30506 | 4.35883 | 4.37052 |
| 2.039E-07 | 1.166E-07 | 9.514E-08 | 6.995E-08 | 5.708E-08 | 1.590E-08 | | | | |
| 91.383 | 94.049 | 99.238 | 99.667 | 99.952 | 100.000 | | | | |
| 4.48741 | 4.61833 | 4.87316 | 4.89420 | 4.90823 | 4.91057 | | | | |

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

| CHI/Q | WITH RESPECT TO | WHEN THE WIND BLOWS |
|-----------------|-----------------|-----------------------|
| SEC/CUBIC METER | THE TOTAL TIME | INTO THIS SECTOR ONLY |

| | | | |
|------------------|------------------------------------|------------|-------|
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(2)= | 1.717 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(3)= | 3.000 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(4)= | 4.012 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(5)= | 4.194 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(6)= | 4.870 |

| K | I | XQSAVE(K,I) | XQINT(K,I) | XQSLOP(K,I) |
|---|---|-------------|------------|-------------|
| 7 | 1 | -8.40538 | -15.00167 | -1.50587 |
| 7 | 2 | -11.81533 | -18.37962 | -3.10230 |

7 3 -12.54483 -22.46722 -5.27565
7 4 -13.23843 -52.08302 -22.20554
7 5 -13.69861 -73.85634 -34.80150
7 6 -16.16796 NUMXQ(K) = 6

| | | |
|-----------|-------|--------|
| 4.368E-05 | 0.049 | 1.000 |
| 2.689E-05 | 0.147 | 3.000 |
| 2.112E-05 | 0.246 | 5.000 |
| 1.492E-05 | 0.491 | 10.000 |
| 1.203E-05 | 0.737 | 15.000 |
| 1.026E-05 | 0.982 | 20.000 |
| 9.027E-06 | 1.228 | 25.000 |
| 8.110E-06 | 1.473 | 30.000 |
| 7.392E-06 | 1.719 | 35.000 |
| 6.245E-06 | 1.964 | 40.000 |
| 5.365E-06 | 2.210 | 45.000 |
| 4.672E-06 | 2.455 | 50.000 |
| 4.114E-06 | 2.701 | 55.000 |
| 3.657E-06 | 2.946 | 60.000 |
| 3.089E-06 | 3.192 | 65.000 |
| 2.592E-06 | 3.437 | 70.000 |
| 2.197E-06 | 3.683 | 75.000 |
| 1.879E-06 | 3.928 | 80.000 |
| 1.192E-06 | 4.174 | 85.000 |
| 4.830E-07 | 4.420 | 90.000 |

1.478E-05 0.5 10.18

ANNUAL AVERAGE = 1.27E-07

K= 7 FIVEXQ(K) = 1.478E-05 FIVEPR(K) = 10.182

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 01/28/03

Page 1375 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Ground Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 10.1 meters

DELTA-T HEIGHTS: 10.1-45.7 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE NNW SECTOR.

| STABILITY | WINDSPEED | FREQUENCY | DISTANCE | TERRAIN | HT | EFF | PLUME | HT | SIGMA-Y | SIGMA-Z | MEANDER-SY | ** CHI/Q VALUES (SEC/CUBIC METER) | | |
|----------------|-----------|-----------|----------|---------|--------|--------|--------|--------|-----------|-----------|------------|-----------------------------------|-----------|------|
| CLASS | METER/SEC | PERCENT | METERS | METERS | METERS | METERS | METERS | METERS | METERS | METERS | METERS | MEANDER | BLDG WAKE | USED |
| AT 10.0 METERS | | | | | | | | | | | | CA=1292.SQ.METERS | | |
| A | 1.6 | 1.13 | 7300. | 0. | 0. | 1000.0 | 1000.0 | 1000.0 | 2.039E-07 | 2.039E-07 | 2.039E-07 | | | |
| A | 3.3 | 2.78 | 7300. | 0. | 0. | 1000.0 | 1000.0 | 1000.0 | 9.517E-08 | 9.514E-08 | 9.514E-08 | | | |
| A | 5.6 | 1.02 | 7300. | 0. | 0. | 1000.0 | 1000.0 | 1000.0 | 5.710E-08 | 5.708E-08 | 5.708E-08 | | | |
| A | 8.2 | 0.18 | 7300. | 0. | 0. | 1000.0 | 1000.0 | 1000.0 | 3.858E-08 | 3.857E-08 | 3.857E-08 | | | |
| B | 1.6 | 0.46 | 7300. | 0. | 0. | 848.1 | 962.0 | 848.1 | 2.500E-07 | 2.498E-07 | 2.498E-07 | | | |
| B | 3.3 | 2.54 | 7300. | 0. | 0. | 848.1 | 962.0 | 848.1 | 1.166E-07 | 1.166E-07 | 1.166E-07 | | | |
| B | 5.6 | 1.20 | 7300. | 0. | 0. | 848.1 | 962.0 | 848.1 | 6.999E-08 | 6.995E-08 | 6.995E-08 | | | |
| B | 8.2 | 0.25 | 7300. | 0. | 0. | 848.1 | 962.0 | 848.1 | 4.729E-08 | 4.727E-08 | 4.727E-08 | | | |
| C | 1.6 | 0.18 | 7300. | 0. | 0. | 644.0 | 373.7 | 644.0 | 8.473E-07 | 8.459E-07 | 8.459E-07 | | | |
| C | 3.3 | 1.87 | 7300. | 0. | 0. | 644.0 | 373.7 | 644.0 | 3.954E-07 | 3.947E-07 | 3.947E-07 | | | |
| C | 5.6 | 0.60 | 7300. | 0. | 0. | 644.0 | 373.7 | 644.0 | 2.372E-07 | 2.368E-07 | 2.368E-07 | | | |
| C | 8.2 | 0.11 | 7300. | 0. | 0. | 644.0 | 373.7 | 644.0 | 1.603E-07 | 1.600E-07 | 1.600E-07 | | | |
| C | 10.7 | 0.04 | 7300. | 0. | 0. | 644.0 | 373.7 | 644.0 | 1.236E-07 | 1.234E-07 | 1.234E-07 | | | |
| D | 0.2 | 0.02 | 7300. | 0. | 0. | 453.5 | 111.1 | 515.1 | 2.494E-05 | 2.810E-05 | 2.494E-05 | | | |
| D | 1.6 | 8.07 | 7300. | 0. | 0. | 453.5 | 111.1 | 515.1 | 3.563E-06 | 4.014E-06 | 3.563E-06 | | | |
| D | 3.3 | 20.87 | 7300. | 0. | 0. | 453.5 | 111.1 | 481.0 | 1.781E-06 | 1.873E-06 | 1.781E-06 | | | |
| D | 5.6 | 5.29 | 7300. | 0. | 0. | 453.5 | 111.1 | 456.4 | 1.126E-06 | 1.124E-06 | 1.124E-06 | | | |
| D | 8.2 | 0.42 | 7300. | 0. | 0. | 453.5 | 111.1 | 453.5 | 7.657E-07 | 7.595E-07 | 7.595E-07 | | | |
| E | 0.2 | 0.15 | 7300. | 0. | 0. | 322.5 | 67.5 | 410.0 | 5.173E-05 | 6.456E-05 | 5.173E-05 | | | |
| E | 1.6 | 21.15 | 7300. | 0. | 0. | 322.5 | 67.5 | 410.0 | 7.390E-06 | 9.223E-06 | 7.390E-06 | | | |
| E | 3.3 | 23.87 | 7300. | 0. | 0. | 322.5 | 67.5 | 357.4 | 3.956E-06 | 4.304E-06 | 3.956E-06 | | | |
| E | 5.6 | 2.50 | 7300. | 0. | 0. | 322.5 | 67.5 | 325.9 | 2.603E-06 | 2.582E-06 | 2.582E-06 | | | |
| E | 8.2 | 0.21 | 7300. | 0. | 0. | 322.5 | 67.5 | 322.5 | 1.778E-06 | 1.745E-06 | 1.745E-06 | | | |
| F | 0.2 | 0.03 | 7300. | 0. | 0. | 222.6 | 40.9 | 313.3 | 1.117E-04 | 1.504E-04 | 1.117E-04 | | | |
| F | 1.6 | 3.49 | 7300. | 0. | 0. | 222.6 | 40.9 | 313.3 | 1.595E-05 | 2.148E-05 | 1.595E-05 | | | |
| F | 3.3 | 0.63 | 7300. | 0. | 0. | 222.6 | 40.9 | 255.8 | 9.119E-06 | 1.002E-05 | 9.119E-06 | | | |
| G | 0.2 | 0.01 | 7300. | 0. | 0. | 153.6 | 24.8 | 257.9 | 2.237E-04 | 3.389E-04 | 2.237E-04 | | | |
| G | 1.6 | 0.95 | 7300. | 0. | 0. | 153.6 | 24.8 | 257.9 | 3.195E-05 | 4.842E-05 | 3.195E-05 | | | |

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1376 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 10.1 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.1 45.7 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

NNW SECTOR BOUNDARY DISTANCE = 7300.0 METERS

LATERAL PLUME MEANDER/BUILDING WAKE CREDIT ALLOWED

AS A FUNCTION OF DOWNWIND DISTANCE.

MEANDER CREDIT IS FOR WINDSPEEDS LESS THAN 6 MPS.

BUILDING WAKE CREDIT ALLOWED: C= 0.5 A= 2584. D= 54.3

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

| | | | | | | | | | |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 2.237E-04 | 1.117E-04 | 5.173E-05 | 3.195E-05 | 2.494E-05 | 1.595E-05 | 9.119E-06 | 7.390E-06 | 3.956E-06 | 3.563E-06 |
| 0.008 | 0.034 | 0.184 | 1.136 | 1.155 | 4.645 | 5.279 | 26.430 | 50.295 | 58.368 |
| 0.00050 | 0.00223 | 0.01224 | 0.07536 | 0.07659 | 0.30804 | 0.35012 | 1.75284 | 3.33558 | 3.87095 |
| 2.582E-06 | 1.781E-06 | 1.745E-06 | 1.124E-06 | 8.459E-07 | 7.595E-07 | 3.947E-07 | 2.498E-07 | 2.368E-07 | 2.039E-07 |
| 60.871 | 81.740 | 81.951 | 87.239 | 87.415 | 87.838 | 89.707 | 90.165 | 90.764 | 91.892 |
| 4.03694 | 5.42096 | 5.43499 | 5.78567 | 5.79736 | 5.82541 | 5.94932 | 5.97971 | 6.01945 | 6.09427 |
| 1.600E-07 | 1.234E-07 | 1.166E-07 | 9.514E-08 | 6.995E-08 | 5.708E-08 | 4.727E-08 | 3.857E-08 | | |
| 91.998 | 92.033 | 94.571 | 97.356 | 98.555 | 99.577 | 99.824 | 100.000 | | |
| 6.10128 | 6.10362 | 6.27194 | 6.45663 | 6.53612 | 6.60392 | 6.62029 | 6.63197 | | |

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

| CHI/Q | WITH RESPECT TO | WHEN THE WIND BLOWS |
|-----------------|-----------------|-----------------------|
| SEC/CUBIC METER | THE TOTAL TIME | INTO THIS SECTOR ONLY |

| | | | |
|------------------|------------------------------------|------------|-------|
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(2)= | 1.751 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(3)= | 3.868 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(4)= | 5.417 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(5)= | 5.782 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(6)= | 6.268 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(7)= | 6.453 |

| K | I | XQSAVE(K,I) | XQINT(K,I) | XQSLOP(K,I) |
|---|---|-------------|------------|-------------|
| 8 | 1 | -8.40538 | -14.92852 | -1.47675 |

Calculation No. PM-1055 Revision 0

Attachment J

Page 1377 of 1411

8 2 -11.81533 -16.31359 -2.13376
 8 3 -12.54483 -20.17421 -4.31952
 8 4 -13.23843 -36.09462 -14.23456
 8 5 -13.69861 -101.29270 -55.67347
 8 6 -15.96463 -37.00098 -13.72546
 8 7 -16.16796 NUMXQ(K) = 7

| | | |
|-----------|-------|--------|
| 3.764E-05 | 0.066 | 1.000 |
| 2.311E-05 | 0.199 | 3.000 |
| 1.811E-05 | 0.332 | 5.000 |
| 1.274E-05 | 0.663 | 10.000 |
| 1.024E-05 | 0.995 | 15.000 |
| 8.703E-06 | 1.326 | 20.000 |
| 7.639E-06 | 1.658 | 25.000 |
| 6.617E-06 | 1.990 | 30.000 |
| 5.768E-06 | 2.321 | 35.000 |
| 5.106E-06 | 2.653 | 40.000 |
| 4.576E-06 | 2.984 | 45.000 |
| 4.141E-06 | 3.316 | 50.000 |
| 3.777E-06 | 3.648 | 55.000 |
| 3.372E-06 | 3.979 | 60.000 |
| 2.869E-06 | 4.311 | 65.000 |
| 2.465E-06 | 4.642 | 70.000 |
| 2.136E-06 | 4.974 | 75.000 |
| 1.864E-06 | 5.306 | 80.000 |
| 1.352E-06 | 5.637 | 85.000 |
| 4.708E-07 | 5.969 | 90.000 |

1.475E-05 0.5 7.54

ANNUAL AVERAGE = 1.49E-07

K= 8 FIVEXQ(K) = 1.475E-05 FIVEPR(K) = 7.539

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 01/28/03

Page 1378 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Ground Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 10.1 meters

DELTA-T HEIGHTS: 10.1-45.7 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE N SECTOR.

| STABILITY | WINDSPEED | FREQUENCY | DISTANCE | TERRAIN | HT | EFF | PLUME | HT | SIGMA-Y | SIGMA-Z | MEANDER-SY | ** CHI/Q VALUES (SEC/CUBIC METER) | | |
|----------------|-----------|-----------|----------|---------|--------|--------|--------|--------|---------|-----------|------------|-----------------------------------|-----------|------|
| CLASS | METER/SEC | PERCENT | METERS | METERS | METERS | METERS | METERS | METERS | METERS | METERS | METERS | MEANDER | BLDG WAKE | USED |
| AT 10.0 METERS | | | | | | | | | | | | CA=1292.SQ.METERS | | |
| A | 1.6 | 0.23 | 7300. | 0. | 0. | 0. | 1000.0 | 1000.0 | 1000.0 | 2.039E-07 | 2.039E-07 | 2.039E-07 | | |
| A | 3.3 | 2.01 | 7300. | 0. | 0. | 0. | 1000.0 | 1000.0 | 1000.0 | 9.517E-08 | 9.514E-08 | 9.514E-08 | | |
| A | 5.6 | 2.77 | 7300. | 0. | 0. | 0. | 1000.0 | 1000.0 | 1000.0 | 5.710E-08 | 5.708E-08 | 5.708E-08 | | |
| A | 8.2 | 0.37 | 7300. | 0. | 0. | 0. | 1000.0 | 1000.0 | 1000.0 | 3.858E-08 | 3.857E-08 | 3.857E-08 | | |
| B | 1.6 | 0.34 | 7300. | 0. | 0. | 0. | 848.1 | 962.0 | 848.1 | 2.500E-07 | 2.498E-07 | 2.498E-07 | | |
| B | 3.3 | 2.57 | 7300. | 0. | 0. | 0. | 848.1 | 962.0 | 848.1 | 1.166E-07 | 1.166E-07 | 1.166E-07 | | |
| B | 5.6 | 4.10 | 7300. | 0. | 0. | 0. | 848.1 | 962.0 | 848.1 | 6.999E-08 | 6.995E-08 | 6.995E-08 | | |
| B | 8.2 | 0.62 | 7300. | 0. | 0. | 0. | 848.1 | 962.0 | 848.1 | 4.729E-08 | 4.727E-08 | 4.727E-08 | | |
| C | 1.6 | 0.17 | 7300. | 0. | 0. | 0. | 644.0 | 373.7 | 644.0 | 8.473E-07 | 8.459E-07 | 8.459E-07 | | |
| C | 3.3 | 1.87 | 7300. | 0. | 0. | 0. | 644.0 | 373.7 | 644.0 | 3.954E-07 | 3.947E-07 | 3.947E-07 | | |
| C | 5.6 | 2.12 | 7300. | 0. | 0. | 0. | 644.0 | 373.7 | 644.0 | 2.372E-07 | 2.368E-07 | 2.368E-07 | | |
| C | 8.2 | 0.23 | 7300. | 0. | 0. | 0. | 644.0 | 373.7 | 644.0 | 1.603E-07 | 1.600E-07 | 1.600E-07 | | |
| D | 0.2 | 0.01 | 7300. | 0. | 0. | 0. | 453.5 | 111.1 | 515.1 | 2.494E-05 | 2.810E-05 | 2.494E-05 | | |
| D | 1.6 | 5.00 | 7300. | 0. | 0. | 0. | 453.5 | 111.1 | 515.1 | 3.563E-06 | 4.014E-06 | 3.563E-06 | | |
| D | 3.3 | 15.38 | 7300. | 0. | 0. | 0. | 453.5 | 111.1 | 481.0 | 1.781E-06 | 1.873E-06 | 1.781E-06 | | |
| D | 5.6 | 9.19 | 7300. | 0. | 0. | 0. | 453.5 | 111.1 | 456.4 | 1.126E-06 | 1.124E-06 | 1.124E-06 | | |
| D | 8.2 | 1.27 | 7300. | 0. | 0. | 0. | 453.5 | 111.1 | 453.5 | 7.657E-07 | 7.595E-07 | 7.595E-07 | | |
| E | 0.2 | 0.13 | 7300. | 0. | 0. | 0. | 322.5 | 67.5 | 410.0 | 5.173E-05 | 6.456E-05 | 5.173E-05 | | |
| E | 1.6 | 17.92 | 7300. | 0. | 0. | 0. | 322.5 | 67.5 | 410.0 | 7.390E-06 | 9.223E-06 | 7.390E-06 | | |
| E | 3.3 | 21.79 | 7300. | 0. | 0. | 0. | 322.5 | 67.5 | 357.4 | 3.956E-06 | 4.304E-06 | 3.956E-06 | | |
| E | 5.6 | 5.71 | 7300. | 0. | 0. | 0. | 322.5 | 67.5 | 325.9 | 2.603E-06 | 2.582E-06 | 2.582E-06 | | |
| E | 8.2 | 0.71 | 7300. | 0. | 0. | 0. | 322.5 | 67.5 | 322.5 | 1.778E-06 | 1.745E-06 | 1.745E-06 | | |
| E | 10.7 | 0.03 | 7300. | 0. | 0. | 0. | 322.5 | 67.5 | 322.5 | 1.370E-06 | 1.345E-06 | 1.345E-06 | | |
| F | 0.2 | 0.03 | 7300. | 0. | 0. | 0. | 222.6 | 40.9 | 313.3 | 1.117E-04 | 1.504E-04 | 1.117E-04 | | |
| F | 1.6 | 3.42 | 7300. | 0. | 0. | 0. | 222.6 | 40.9 | 313.3 | 1.595E-05 | 2.148E-05 | 1.595E-05 | | |
| F | 3.3 | 1.38 | 7300. | 0. | 0. | 0. | 222.6 | 40.9 | 255.8 | 9.119E-06 | 1.002E-05 | 9.119E-06 | | |
| G | 0.2 | 0.01 | 7300. | 0. | 0. | 0. | 153.6 | 24.8 | 257.9 | 2.237E-04 | 3.389E-04 | 2.237E-04 | | |
| G | 1.6 | 0.65 | 7300. | 0. | 0. | 0. | 153.6 | 24.8 | 257.9 | 3.195E-05 | 4.842E-05 | 3.195E-05 | | |

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1379 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 10.1 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.1-45.7 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

N SECTOR BOUNDARY DISTANCE = 7300.0 METERS

LATERAL PLUME MEANDER/BUILDING WAKE CREDIT ALLOWED

AS A FUNCTION OF DOWNWIND DISTANCE.

MEANDER CREDIT IS FOR WINDSPEEDS LESS THAN 6 MPS.

BUILDING WAKE CREDIT ALLOWED: C= 0.5 A= 2584. D= 54.3

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

| | | | | | | | | | |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 2.237E-04 | 1.117E-04 | 5.173E-05 | 3.195E-05 | 2.494E-05 | 1.595E-05 | 9.119E-06 | 7.390E-06 | 3.956E-06 | 3.563E-06 |
| 0.005 | 0.031 | 0.159 | 0.809 | 0.820 | 4.240 | 5.625 | 23.545 | 45.337 | 50.339 |
| 0.00043 | 0.00254 | 0.01311 | 0.06688 | 0.06784 | 0.35072 | 0.46528 | 1.94748 | 3.74998 | 4.16378 |
| 2.582E-06 | 1.781E-06 | 1.745E-06 | 1.345E-06 | 1.124E-06 | 8.459E-07 | 7.595E-07 | 3.947E-07 | 2.498E-07 | 2.368E-07 |
| 56.049 | 71.425 | 72.131 | 72.160 | 81.345 | 81.515 | 82.787 | 84.652 | 84.992 | 87.111 |
| 4.63603 | 5.90783 | 5.96628 | 5.96862 | 6.72843 | 6.74245 | 6.84766 | 7.00196 | 7.03001 | 7.20535 |
| 2.039E-07 | 1.600E-07 | 1.166E-07 | 9.514E-08 | 6.995E-08 | 5.708E-08 | 4.727E-08 | 3.857E-08 | | |
| 87.338 | 87.564 | 90.136 | 92.143 | 96.241 | 99.011 | 99.633 | 100.000 | | |
| 7.22405 | 7.24276 | 7.45550 | 7.62149 | 7.96048 | 8.18959 | 8.24103 | 8.27142 | | |

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

| CHI/Q | WITH RESPECT TO | WHEN THE WIND BLOWS |
|-----------------|-----------------|-----------------------|
| SEC/CUBIC METER | THE TOTAL TIME | INTO THIS SECTOR ONLY |

| | | | |
|------------------|------------------------------------|------------|-------|
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(2)= | 1.945 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(3)= | 4.160 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(4)= | 5.904 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(5)= | 5.962 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(6)= | 6.725 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(7)= | 8.186 |

| K | I | XQSAVE(K,I) | XQINT(K,I) | XQSLOP(K,I) |
|---|---|-------------|------------|-------------|
| 9 | 1 | -8.40538 | -14.76598 | -1.42878 |

9 2 -11.81533 -16.34240 -2.19212
 9 3 -12.54483 -19.63423 -4.09230
 9 4 -13.23843 -19.67864 -4.12072
 9 5 -13.25883 -24.43392 -7.17302
 9 6 -13.69861 -56.60621 -28.66959
 9 7 -16.67879 NUMXQ(K) = 7

| | | |
|-----------|-------|--------|
| 3.464E-05 | 0.083 | 1.000 |
| 2.142E-05 | 0.248 | 3.000 |
| 1.683E-05 | 0.414 | 5.000 |
| 1.188E-05 | 0.827 | 10.000 |
| 9.552E-06 | 1.241 | 15.000 |
| 8.125E-06 | 1.654 | 20.000 |
| 7.000E-06 | 2.068 | 25.000 |
| 5.915E-06 | 2.481 | 30.000 |
| 5.110E-06 | 2.895 | 35.000 |
| 4.488E-06 | 3.309 | 40.000 |
| 3.993E-06 | 3.722 | 45.000 |
| 3.588E-06 | 4.136 | 50.000 |
| 3.003E-06 | 4.549 | 55.000 |
| 2.531E-06 | 4.963 | 60.000 |
| 2.157E-06 | 5.376 | 65.000 |
| 1.856E-06 | 5.790 | 70.000 |
| 1.515E-06 | 6.204 | 75.000 |
| 1.196E-06 | 6.617 | 80.000 |
| 5.841E-07 | 7.031 | 85.000 |
| 2.469E-07 | 7.444 | 90.000 |
| 1.534E-05 | 0.5 | 6.04 |

ANNUAL AVERAGE = 1.62E-07

K= 9 FIVEXQ(K) = 1.534E-05 FIVEPR(K) = 6.045

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1381 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Ground Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 10.1 meters

DELTA-T HEIGHTS: 10.1-45.7 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE NNE SECTOR.

| STABILITY | WINDSPEED | FREQUENCY | DISTANCE | TERRAIN | HT | EFF | PLUME | HT | SIGMA-Y | SIGMA-Z | MEANDER-SY | ** CHI/Q VALUES (SEC/CUBIC METER) | | |
|----------------|-----------|-----------|----------|---------|--------|--------|--------|--------|---------|-----------|------------|-----------------------------------|-----------|------|
| CLASS | METER/SEC | PERCENT | METERS | METERS | METERS | METERS | METERS | METERS | METERS | METERS | METERS | MEANDER | BLDG WAKE | USED |
| AT 10.0 METERS | | | | | | | | | | | | CA=1292.SQ.METERS | | |
| A | 1.6 | 0.17 | 7300. | 0. | 0. | 0. | 1000.0 | 1000.0 | 1000.0 | 2.039E-07 | 2.039E-07 | 2.039E-07 | | |
| A | 3.3 | 2.41 | 7300. | 0. | 0. | 0. | 1000.0 | 1000.0 | 1000.0 | 9.517E-08 | 9.514E-08 | 9.514E-08 | | |
| A | 5.6 | 1.74 | 7300. | 0. | 0. | 0. | 1000.0 | 1000.0 | 1000.0 | 5.710E-08 | 5.708E-08 | 5.708E-08 | | |
| A | 8.2 | 0.06 | 7300. | 0. | 0. | 0. | 1000.0 | 1000.0 | 1000.0 | 3.858E-08 | 3.857E-08 | 3.857E-08 | | |
| B | 1.6 | 0.11 | 7300. | 0. | 0. | 0. | 848.1 | 962.0 | 848.1 | 2.500E-07 | 2.498E-07 | 2.498E-07 | | |
| B | 3.3 | 2.52 | 7300. | 0. | 0. | 0. | 848.1 | 962.0 | 848.1 | 1.166E-07 | 1.166E-07 | 1.166E-07 | | |
| B | 5.6 | 2.58 | 7300. | 0. | 0. | 0. | 848.1 | 962.0 | 848.1 | 6.999E-08 | 6.995E-08 | 6.995E-08 | | |
| B | 8.2 | 0.06 | 7300. | 0. | 0. | 0. | 848.1 | 962.0 | 848.1 | 4.729E-08 | 4.727E-08 | 4.727E-08 | | |
| C | 3.3 | 1.35 | 7300. | 0. | 0. | 0. | 644.0 | 373.7 | 644.0 | 3.954E-07 | 3.947E-07 | 3.947E-07 | | |
| C | 5.6 | 1.74 | 7300. | 0. | 0. | 0. | 644.0 | 373.7 | 644.0 | 2.372E-07 | 2.368E-07 | 2.368E-07 | | |
| D | 0.2 | 0.01 | 7300. | 0. | 0. | 0. | 453.5 | 111.1 | 515.1 | 2.494E-05 | 2.810E-05 | 2.494E-05 | | |
| D | 1.6 | 5.16 | 7300. | 0. | 0. | 0. | 453.5 | 111.1 | 515.1 | 3.563E-06 | 4.014E-06 | 3.563E-06 | | |
| D | 3.3 | 13.07 | 7300. | 0. | 0. | 0. | 453.5 | 111.1 | 481.0 | 1.781E-06 | 1.873E-06 | 1.781E-06 | | |
| D | 5.6 | 6.06 | 7300. | 0. | 0. | 0. | 453.5 | 111.1 | 456.4 | 1.126E-06 | 1.124E-06 | 1.124E-06 | | |
| D | 8.2 | 0.56 | 7300. | 0. | 0. | 0. | 453.5 | 111.1 | 453.5 | 7.657E-07 | 7.595E-07 | 7.595E-07 | | |
| D | 10.7 | 0.11 | 7300. | 0. | 0. | 0. | 453.5 | 111.1 | 453.5 | 5.902E-07 | 5.854E-07 | 5.854E-07 | | |
| E | 0.2 | 0.15 | 7300. | 0. | 0. | 0. | 322.5 | 67.5 | 410.0 | 5.173E-05 | 6.456E-05 | 5.173E-05 | | |
| E | 1.6 | 21.04 | 7300. | 0. | 0. | 0. | 322.5 | 67.5 | 410.0 | 7.390E-06 | 9.223E-06 | 7.390E-06 | | |
| E | 3.3 | 21.93 | 7300. | 0. | 0. | 0. | 322.5 | 67.5 | 357.4 | 3.956E-06 | 4.304E-06 | 3.956E-06 | | |
| E | 5.6 | 3.03 | 7300. | 0. | 0. | 0. | 322.5 | 67.5 | 325.9 | 2.603E-06 | 2.582E-06 | 2.582E-06 | | |
| E | 8.2 | 0.22 | 7300. | 0. | 0. | 0. | 322.5 | 67.5 | 322.5 | 1.778E-06 | 1.745E-06 | 1.745E-06 | | |
| F | 0.2 | 0.08 | 7300. | 0. | 0. | 0. | 222.6 | 40.9 | 313.3 | 1.117E-04 | 1.504E-04 | 1.117E-04 | | |
| F | 1.6 | 11.00 | 7300. | 0. | 0. | 0. | 222.6 | 40.9 | 313.3 | 1.595E-05 | 2.148E-05 | 1.595E-05 | | |
| F | 3.3 | 2.58 | 7300. | 0. | 0. | 0. | 222.6 | 40.9 | 255.8 | 9.119E-06 | 1.002E-05 | 9.119E-06 | | |
| G | 0.2 | 0.01 | 7300. | 0. | 0. | 0. | 153.6 | 24.8 | 257.9 | 2.237E-04 | 3.389E-04 | 2.237E-04 | | |
| G | 1.6 | 1.85 | 7300. | 0. | 0. | 0. | 153.6 | 24.8 | 257.9 | 3.195E-05 | 4.842E-05 | 3.195E-05 | | |
| G | 3.3 | 0.39 | 7300. | 0. | 0. | 0. | 153.6 | 24.8 | 187.1 | 2.056E-05 | 2.260E-05 | 2.056E-05 | | |

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1382 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 10.1 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.1-45.7 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

NNE SECTOR BOUNDARY DISTANCE = 7300.0 METERS

LATERAL PLUME MEANDER/BUILDING WAKE CREDIT ALLOWED

AS A FUNCTION OF DOWNWIND DISTANCE.

MEANDER CREDIT IS FOR WINDSPEEDS LESS THAN 6 MPS.

BUILDING WAKE CREDIT ALLOWED: C= 0.5 A= 2584. D= 54.3

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

| | | | | | | | | | |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 2.237E-04 | 1.117E-04 | 5.173E-05 | 3.195E-05 | 2.494E-05 | 2.056E-05 | 1.595E-05 | 9.119E-06 | 7.390E-06 | 3.956E-06 |
| 0.015 | 0.097 | 0.247 | 2.098 | 2.110 | 2.503 | 13.498 | 16.078 | 37.115 | 59.049 |
| 0.00061 | 0.00403 | 0.01029 | 0.08744 | 0.08793 | 0.10430 | 0.56252 | 0.67006 | 1.54676 | 2.46087 |
| 3.563E-06 | 2.582E-06 | 1.781E-06 | 1.745E-06 | 1.124E-06 | 7.595E-07 | 5.854E-07 | 3.947E-07 | 2.498E-07 | 2.368E-07 |
| 64.210 | 67.239 | 80.310 | 80.534 | 86.593 | 87.154 | 87.266 | 88.612 | 88.724 | 90.463 |
| 2.67595 | 2.80220 | 3.34692 | 3.35627 | 3.60876 | 3.63214 | 3.63682 | 3.69293 | 3.69760 | 3.77008 |
| 2.039E-07 | 1.166E-07 | 9.514E-08 | 6.995E-08 | 5.708E-08 | 4.727E-08 | 3.857E-08 | | | |
| 90.632 | 93.156 | 95.568 | 98.149 | 99.888 | 99.944 | 100.000 | | | |
| 3.77709 | 3.88230 | 3.98282 | 4.09037 | 4.16284 | 4.16518 | 4.16752 | | | |

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

| CHI/Q | WITH RESPECT TO | WHEN THE WIND BLOWS |
|-----------------|-----------------|-----------------------|
| SEC/CUBIC METER | THE TOTAL TIME | INTO THIS SECTOR ONLY |

| | | | |
|------------------|------------------------------------|-------------|-------|
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(2) = | 0.562 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(3) = | 1.545 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(4) = | 2.673 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(5) = | 3.344 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(6) = | 3.606 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(7) = | 4.159 |

| K | I | XQSAVE(K,I) | XQINT(K,I) | XQSLOP(K,I) |
|----|---|-------------|------------|-------------|
| 10 | 1 | -8.40538 | -14.68705 | -1.43625 |

Calculation No. PM-1055 Revision 0

Attachment J

Page 1383 of 1411

10 2 -11.04582 -16.22211 -2.04174
 10 3 -11.81533 -18.74508 -3.21067
 10 4 -12.54483 -26.12405 -7.03173
 10 5 -13.23843 -37.97973 -13.50141
 10 6 -13.69861 -94.98652 -45.19980
 10 7 -16.67879 NUMXQ(K)= 7

| | | |
|-----------|-------|--------|
| 5.080E-05 | 0.042 | 1.000 |
| 3.217E-05 | 0.125 | 3.000 |
| 2.564E-05 | 0.208 | 5.000 |
| 1.851E-05 | 0.417 | 10.000 |
| 1.479E-05 | 0.625 | 15.000 |
| 1.197E-05 | 0.834 | 20.000 |
| 1.010E-05 | 1.042 | 25.000 |
| 8.763E-06 | 1.250 | 30.000 |
| 7.750E-06 | 1.459 | 35.000 |
| 6.713E-06 | 1.667 | 40.000 |
| 5.758E-06 | 1.875 | 45.000 |
| 5.009E-06 | 2.084 | 50.000 |
| 4.406E-06 | 2.292 | 55.000 |
| 3.913E-06 | 2.501 | 60.000 |
| 3.433E-06 | 2.709 | 65.000 |
| 2.735E-06 | 2.917 | 70.000 |
| 2.208E-06 | 3.126 | 75.000 |
| 1.803E-06 | 3.334 | 80.000 |
| 1.260E-06 | 3.542 | 85.000 |
| 5.063E-07 | 3.751 | 90.000 |
| 1.692E-05 | 0.5 | 12.00 |

ANNUAL AVERAGE = 1.14E-07

K= 10 FIVEXQ(K)= 1.692E-05 FIVEPR(K)=11.998

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 01/28/03

Page 1384 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Ground Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 10.1 meters

DELTA-T HEIGHTS: 10.1-45.7 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE NE SECTOR.

| STABILITY | WINDSPEED | FREQUENCY | DISTANCE | TERRAIN | HT | EFF | PLUME | HT | SIGMA-Y | SIGMA-Z | MEANDER-SY | ** | CHI/Q | VALUES | (SEC/CUBIC METER) |
|----------------|-----------|-----------|----------|---------|----|-----|--------|----|---------|---------|------------|-------------------|-----------|-----------|-------------------|
| CLASS | METER/SEC | PERCENT | METERS | METERS | | | METERS | | METERS | METERS | METERS | | MEANDER | BLDG | WAKE |
| AT 10.0 METERS | | | | | | | | | | | | CA=1292.SQ.METERS | | | |
| A | 1.6 | 0.21 | 7300. | 0. | | | 0. | | 1000.0 | 1000.0 | 1000.0 | | 2.039E-07 | 2.039E-07 | 2.039E-07 |
| A | 3.3 | 2.81 | 7300. | 0. | | | 0. | | 1000.0 | 1000.0 | 1000.0 | | 9.517E-08 | 9.514E-08 | 9.514E-08 |
| A | 5.6 | 2.03 | 7300. | 0. | | | 0. | | 1000.0 | 1000.0 | 1000.0 | | 5.710E-08 | 5.708E-08 | 5.708E-08 |
| A | 8.2 | 0.16 | 7300. | 0. | | | 0. | | 1000.0 | 1000.0 | 1000.0 | | 3.858E-08 | 3.857E-08 | 3.857E-08 |
| B | 1.6 | 0.31 | 7300. | 0. | | | 0. | | 848.1 | 962.0 | 848.1 | | 2.500E-07 | 2.498E-07 | 2.498E-07 |
| B | 3.3 | 3.34 | 7300. | 0. | | | 0. | | 848.1 | 962.0 | 848.1 | | 1.166E-07 | 1.166E-07 | 1.166E-07 |
| B | 5.6 | 1.46 | 7300. | 0. | | | 0. | | 848.1 | 962.0 | 848.1 | | 6.999E-08 | 6.995E-08 | 6.995E-08 |
| B | 8.2 | 0.16 | 7300. | 0. | | | 0. | | 848.1 | 962.0 | 848.1 | | 4.729E-08 | 4.727E-08 | 4.727E-08 |
| C | 1.6 | 0.26 | 7300. | 0. | | | 0. | | 644.0 | 373.7 | 644.0 | | 8.473E-07 | 8.459E-07 | 8.459E-07 |
| C | 3.3 | 1.25 | 7300. | 0. | | | 0. | | 644.0 | 373.7 | 644.0 | | 3.954E-07 | 3.947E-07 | 3.947E-07 |
| C | 5.6 | 1.15 | 7300. | 0. | | | 0. | | 644.0 | 373.7 | 644.0 | | 2.372E-07 | 2.368E-07 | 2.368E-07 |
| D | 0.2 | 0.01 | 7300. | 0. | | | 0. | | 453.5 | 111.1 | 515.1 | | 2.494E-05 | 2.810E-05 | 2.494E-05 |
| D | 1.6 | 4.06 | 7300. | 0. | | | 0. | | 453.5 | 111.1 | 515.1 | | 3.563E-06 | 4.014E-06 | 3.563E-06 |
| D | 3.3 | 9.80 | 7300. | 0. | | | 0. | | 453.5 | 111.1 | 481.0 | | 1.781E-06 | 1.873E-06 | 1.781E-06 |
| D | 5.6 | 4.06 | 7300. | 0. | | | 0. | | 453.5 | 111.1 | 456.4 | | 1.126E-06 | 1.124E-06 | 1.124E-06 |
| D | 8.2 | 0.26 | 7300. | 0. | | | 0. | | 453.5 | 111.1 | 453.5 | | 7.657E-07 | 7.595E-07 | 7.595E-07 |
| E | 0.2 | 0.12 | 7300. | 0. | | | 0. | | 322.5 | 67.5 | 410.0 | | 5.173E-05 | 6.456E-05 | 5.173E-05 |
| E | 1.6 | 16.94 | 7300. | 0. | | | 0. | | 322.5 | 67.5 | 410.0 | | 7.390E-06 | 9.223E-06 | 7.390E-06 |
| E | 3.3 | 16.88 | 7300. | 0. | | | 0. | | 322.5 | 67.5 | 357.4 | | 3.956E-06 | 4.304E-06 | 3.956E-06 |
| E | 5.6 | 2.40 | 7300. | 0. | | | 0. | | 322.5 | 67.5 | 325.9 | | 2.603E-06 | 2.582E-06 | 2.582E-06 |
| F | 0.2 | 0.11 | 7300. | 0. | | | 0. | | 222.6 | 40.9 | 313.3 | | 1.117E-04 | 1.504E-04 | 1.117E-04 |
| F | 1.6 | 15.32 | 7300. | 0. | | | 0. | | 222.6 | 40.9 | 313.3 | | 1.595E-05 | 2.148E-05 | 1.595E-05 |
| F | 3.3 | 5.05 | 7300. | 0. | | | 0. | | 222.6 | 40.9 | 255.8 | | 9.119E-06 | 1.002E-05 | 9.119E-06 |
| F | 5.6 | 0.05 | 7300. | 0. | | | 0. | | 222.6 | 40.9 | 225.6 | | 6.202E-06 | 6.015E-06 | 6.015E-06 |
| G | 0.2 | 0.07 | 7300. | 0. | | | 0. | | 153.6 | 24.8 | 257.9 | | 2.237E-04 | 3.389E-04 | 2.237E-04 |
| G | 1.6 | 8.65 | 7300. | 0. | | | 0. | | 153.6 | 24.8 | 257.9 | | 3.195E-05 | 4.842E-05 | 3.195E-05 |
| G | 3.3 | 3.07 | 7300. | 0. | | | 0. | | 153.6 | 24.8 | 187.1 | | 2.056E-05 | 2.260E-05 | 2.056E-05 |

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1385 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 10.1 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.1-45.7 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

NE SECTOR BOUNDARY DISTANCE = 7300.0 METERS

LATERAL PLUME MEANDER/BUILDING WAKE CREDIT ALLOWED

AS A FUNCTION OF DOWNWIND DISTANCE.

MEANDER CREDIT IS FOR WINDSPEEDS LESS THAN 6 MPS.

BUILDING WAKE CREDIT ALLOWED: C= 0.5 A= 2584. D= 54.3

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

| | | | | | | | | | |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 2.237E-04 | 1.117E-04 | 5.173E-05 | 3.195E-05 | 2.494E-05 | 2.056E-05 | 1.595E-05 | 9.119E-06 | 7.390E-06 | 6.015E-06 |
| 0.068 | 0.183 | 0.304 | 8.954 | 8.963 | 12.038 | 27.358 | 32.413 | 49.349 | 49.401 |
| 0.00307 | 0.00821 | 0.01363 | 0.40171 | 0.40213 | 0.54007 | 1.22740 | 1.45418 | 2.21398 | 2.21632 |
| 3.956E-06 | 3.563E-06 | 2.582E-06 | 1.781E-06 | 1.124E-06 | 8.459E-07 | 7.595E-07 | 3.947E-07 | 2.498E-07 | 2.368E-07 |
| 66.285 | 70.349 | 72.746 | 82.543 | 86.608 | 86.868 | 87.129 | 88.379 | 88.692 | 89.838 |
| 2.97379 | 3.15614 | 3.26369 | 3.70321 | 3.88556 | 3.89725 | 3.90894 | 3.96505 | 3.97907 | 4.03051 |
| 2.039E-07 | 1.166E-07 | 9.514E-08 | 6.995E-08 | 5.708E-08 | 4.727E-08 | 3.857E-08 | | | |
| 90.047 | 93.382 | 96.196 | 97.655 | 99.687 | 99.844 | 100.000 | | | |
| 4.03986 | 4.18948 | 4.31573 | 4.38119 | 4.47236 | 4.47938 | 4.48639 | | | |

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

| | | | |
|------------------|------------------------------------|------------|-------|
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(2)= | 0.401 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(3)= | 1.226 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(4)= | 2.212 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(5)= | 3.153 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(6)= | 3.700 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(7)= | 3.882 |

| | | | | |
|----|---|-------------|------------|-------------|
| K | I | XQSAVE(K,I) | XQINT(K,I) | XQSLOP(K,I) |
| 11 | 1 | -8.40538 | -14.15498 | -1.43480 |

| | | | | |
|----|---|-----------|--------------|-----------|
| 11 | 2 | -10.35129 | -14.92988 | -1.72710 |
| 11 | 3 | -11.04582 | -18.34724 | -3.24669 |
| 11 | 4 | -11.81533 | -21.39976 | -4.76394 |
| 11 | 5 | -12.54483 | -30.42010 | -9.61687 |
| 11 | 6 | -13.23843 | -50.44180 | -20.82336 |
| 11 | 7 | -13.69861 | NUMXQ(K) = 7 | |
| | | 8.357E-05 | 0.045 | 1.000 |
| | | 5.281E-05 | 0.135 | 3.000 |
| | | 4.203E-05 | 0.224 | 5.000 |
| | | 2.995E-05 | 0.449 | 10.000 |
| | | 2.345E-05 | 0.673 | 15.000 |
| | | 1.957E-05 | 0.897 | 20.000 |
| | | 1.693E-05 | 1.122 | 25.000 |
| | | 1.421E-05 | 1.346 | 30.000 |
| | | 1.166E-05 | 1.570 | 35.000 |
| | | 9.794E-06 | 1.795 | 40.000 |
| | | 8.373E-06 | 2.019 | 45.000 |
| | | 7.199E-06 | 2.243 | 50.000 |
| | | 5.939E-06 | 2.468 | 55.000 |
| | | 4.970E-06 | 2.692 | 60.000 |
| | | 4.209E-06 | 2.916 | 65.000 |
| | | 3.601E-06 | 3.140 | 70.000 |
| | | 2.705E-06 | 3.365 | 75.000 |
| | | 2.043E-06 | 3.589 | 80.000 |
| | | 1.345E-06 | 3.813 | 85.000 |
| | | 2.808E-05 | 0.5 | 11.14 |

ANNUAL AVERAGE = 1.59E-07

K= 11 FIVEXQ(K)= 2.808E-05 FIVEPR(K)=11.145

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1387 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Ground Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 10.1 meters

DELTA-T HEIGHTS: 10.1-45.7 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE ENE SECTOR.

| STABILITY | WINDSPEED | FREQUENCY | DISTANCE | TERRAIN | HT | EFF | PLUME | HT | SIGMA-Y | SIGMA-Z | MEANDER-SY | ** CHI/Q VALUES (SEC/CUBIC METER) | | |
|----------------|-----------|-----------|----------|---------|--------|--------|--------|--------|-----------|-----------|------------|-----------------------------------|-----------|------|
| CLASS | METER/SEC | PERCENT | METERS | METERS | METERS | METERS | METERS | METERS | METERS | METERS | METERS | MEANDER | BLDG WAKE | USED |
| AT 10.0 METERS | | | | | | | | | | | | CA=1292.SQ.METERS | | |
| A | 1.6 | 0.24 | 7300. | 0. | 0. | 1000.0 | 1000.0 | 1000.0 | 2.039E-07 | 2.039E-07 | 2.039E-07 | | | |
| A | 3.3 | 1.35 | 7300. | 0. | 0. | 1000.0 | 1000.0 | 1000.0 | 9.517E-08 | 9.514E-08 | 9.514E-08 | | | |
| A | 5.6 | 0.97 | 7300. | 0. | 0. | 1000.0 | 1000.0 | 1000.0 | 5.710E-08 | 5.708E-08 | 5.708E-08 | | | |
| A | 8.2 | 0.03 | 7300. | 0. | 0. | 1000.0 | 1000.0 | 1000.0 | 3.858E-08 | 3.857E-08 | 3.857E-08 | | | |
| B | 1.6 | 0.21 | 7300. | 0. | 0. | 848.1 | 962.0 | 848.1 | 2.500E-07 | 2.498E-07 | 2.498E-07 | | | |
| B | 3.3 | 1.45 | 7300. | 0. | 0. | 848.1 | 962.0 | 848.1 | 1.166E-07 | 1.166E-07 | 1.166E-07 | | | |
| B | 5.6 | 0.83 | 7300. | 0. | 0. | 848.1 | 962.0 | 848.1 | 6.999E-08 | 6.995E-08 | 6.995E-08 | | | |
| C | 1.6 | 0.14 | 7300. | 0. | 0. | 644.0 | 373.7 | 644.0 | 8.473E-07 | 8.459E-07 | 8.459E-07 | | | |
| C | 3.3 | 0.73 | 7300. | 0. | 0. | 644.0 | 373.7 | 644.0 | 3.954E-07 | 3.947E-07 | 3.947E-07 | | | |
| C | 5.6 | 0.76 | 7300. | 0. | 0. | 644.0 | 373.7 | 644.0 | 2.372E-07 | 2.368E-07 | 2.368E-07 | | | |
| D | 0.2 | 0.01 | 7300. | 0. | 0. | 453.5 | 111.1 | 515.1 | 2.494E-05 | 2.810E-05 | 2.494E-05 | | | |
| D | 1.6 | 3.63 | 7300. | 0. | 0. | 453.5 | 111.1 | 515.1 | 3.563E-06 | 4.014E-06 | 3.563E-06 | | | |
| D | 3.3 | 6.04 | 7300. | 0. | 0. | 453.5 | 111.1 | 481.0 | 1.781E-06 | 1.873E-06 | 1.781E-06 | | | |
| D | 5.6 | 2.56 | 7300. | 0. | 0. | 453.5 | 111.1 | 456.4 | 1.126E-06 | 1.124E-06 | 1.124E-06 | | | |
| D | 8.2 | 0.14 | 7300. | 0. | 0. | 453.5 | 111.1 | 453.5 | 7.657E-07 | 7.595E-07 | 7.595E-07 | | | |
| E | 0.2 | 0.10 | 7300. | 0. | 0. | 322.5 | 67.5 | 410.0 | 5.173E-05 | 6.456E-05 | 5.173E-05 | | | |
| E | 1.6 | 13.64 | 7300. | 0. | 0. | 322.5 | 67.5 | 410.0 | 7.390E-06 | 9.223E-06 | 7.390E-06 | | | |
| E | 3.3 | 14.99 | 7300. | 0. | 0. | 322.5 | 67.5 | 357.4 | 3.956E-06 | 4.304E-06 | 3.956E-06 | | | |
| E | 5.6 | 1.76 | 7300. | 0. | 0. | 322.5 | 67.5 | 325.9 | 2.603E-06 | 2.582E-06 | 2.582E-06 | | | |
| F | 0.2 | 0.12 | 7300. | 0. | 0. | 222.6 | 40.9 | 313.3 | 1.117E-04 | 1.504E-04 | 1.117E-04 | | | |
| F | 1.6 | 15.58 | 7300. | 0. | 0. | 222.6 | 40.9 | 313.3 | 1.595E-05 | 2.148E-05 | 1.595E-05 | | | |
| F | 3.3 | 8.70 | 7300. | 0. | 0. | 222.6 | 40.9 | 255.8 | 9.119E-06 | 1.002E-05 | 9.119E-06 | | | |
| F | 5.6 | 0.10 | 7300. | 0. | 0. | 222.6 | 40.9 | 225.6 | 6.202E-06 | 6.015E-06 | 6.015E-06 | | | |
| G | 0.2 | 0.13 | 7300. | 0. | 0. | 153.6 | 24.8 | 257.9 | 2.237E-04 | 3.389E-04 | 2.237E-04 | | | |
| G | 1.6 | 16.99 | 7300. | 0. | 0. | 153.6 | 24.8 | 257.9 | 3.195E-05 | 4.842E-05 | 3.195E-05 | | | |
| G | 3.3 | 8.77 | 7300. | 0. | 0. | 153.6 | 24.8 | 187.1 | 2.056E-05 | 2.260E-05 | 2.056E-05 | | | |
| G | 5.6 | 0.03 | 7300. | 0. | 0. | 153.6 | 24.8 | 156.4 | 1.476E-05 | 1.356E-05 | 1.356E-05 | | | |

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1388 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 10.1 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.1-45.7 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

ENE SECTOR BOUNDARY DISTANCE = 7300.0 METERS

LATERAL PLUME MEANDER/BUILDING WAKE CREDIT ALLOWED

AS A FUNCTION OF DOWNWIND DISTANCE.

MEANDER CREDIT IS FOR WINDSPEEDS LESS THAN 6 MPS.

BUILDING WAKE CREDIT ALLOWED: C= 0.5 A= 2584. D= 54.3

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

| | | | | | | | | | |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 2.237E-04 | 1.117E-04 | 5.173E-05 | 3.195E-05 | 2.494E-05 | 2.056E-05 | 1.595E-05 | 1.356E-05 | 9.119E-06 | 7.390E-06 |
| 0.135 | 0.251 | 0.348 | 17.341 | 17.349 | 26.122 | 41.699 | 41.734 | 50.437 | 64.080 |
| 0.00910 | 0.01698 | 0.02357 | 1.17380 | 1.17437 | 1.76819 | 2.82256 | 2.82490 | 3.41405 | 4.33750 |
| 6.015E-06 | 3.956E-06 | 3.563E-06 | 2.582E-06 | 1.781E-06 | 1.124E-06 | 8.459E-07 | 7.595E-07 | 3.947E-07 | 2.498E-07 |
| 64.184 | 79.173 | 82.800 | 84.561 | 90.606 | 93.161 | 93.300 | 93.438 | 94.163 | 94.370 |
| 4.34452 | 5.35915 | 5.60463 | 5.72386 | 6.13299 | 6.30599 | 6.31534 | 6.32469 | 6.37379 | 6.38781 |
| 2.368E-07 | 2.039E-07 | 1.166E-07 | 9.514E-08 | 6.995E-08 | 5.708E-08 | 3.857E-08 | | | |
| 95.130 | 95.372 | 96.822 | 98.169 | 98.998 | 99.965 | 100.000 | | | |
| 6.43925 | 6.45561 | 6.55380 | 6.64498 | 6.70109 | 6.76655 | 6.76889 | | | |

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

| CHI/Q | WITH RESPECT TO | WHEN THE WIND BLOWS |
|-----------------|-----------------|-----------------------|
| SEC/CUBIC METER | THE TOTAL TIME | INTO THIS SECTOR ONLY |

| | | | |
|------------------|------------------------------------|-------------|-------|
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE (2)= | 1.172 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE (3)= | 2.820 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE (4)= | 4.334 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE (5)= | 5.601 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE (6)= | 6.129 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE (7)= | 6.302 |

| K | I | XQSAVE(K,I) | XQINT(K,I) | XQSLOP(K,I) |
|----|---|-------------|------------|-------------|
| 12 | 1 | -8.40538 | -13.33734 | -1.31774 |

Calculation No. PM-1055 Revision 0

Attachment J

Page 1389 of 1411

12 2 -10.35129 -14.74649 -1.93960
 12 3 -11.04582 -18.58338 -3.95059
 12 4 -11.81533 -21.89563 -5.88398
 12 5 -12.54483 -36.94700 -15.35505
 12 6 -13.23843 -63.53146 -32.57270
 12 7 -13.69861 NUMXQ(K) = 7

| | | |
|-----------|-------|--------|
| 1.101E-04 | 0.068 | 1.000 |
| 7.116E-05 | 0.203 | 3.000 |
| 5.723E-05 | 0.338 | 5.000 |
| 4.179E-05 | 0.677 | 10.000 |
| 3.435E-05 | 1.015 | 15.000 |
| 2.871E-05 | 1.354 | 20.000 |
| 2.418E-05 | 1.692 | 25.000 |
| 2.093E-05 | 2.031 | 30.000 |
| 1.846E-05 | 2.369 | 35.000 |
| 1.652E-05 | 2.708 | 40.000 |
| 1.398E-05 | 3.046 | 45.000 |
| 1.161E-05 | 3.384 | 50.000 |
| 9.784E-06 | 3.723 | 55.000 |
| 8.347E-06 | 4.061 | 60.000 |
| 7.103E-06 | 4.400 | 65.000 |
| 5.771E-06 | 4.738 | 70.000 |
| 4.744E-06 | 5.077 | 75.000 |
| 3.939E-06 | 5.415 | 80.000 |
| 2.916E-06 | 5.754 | 85.000 |
| 1.876E-06 | 6.092 | 90.000 |

4.809E-05 0.5 7.39

ANNUAL AVERAGE = 3.00E-07

K= 12 FIVEXQ(K) = 4.809E-05 FIVEPR(K) = 7.387

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1390 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Ground Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 10.1 meters

DELTA-T HEIGHTS: 10.1-45.7 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE E SECTOR:

| STABILITY | WINDSPEED | FREQUENCY | DISTANCE | TERRAIN | HT EFF | PLUME HT | SIGMA-Y | SIGMA-Z | MEANDER-SY | ** CHI/Q VALUES (SEC/CUBIC METER) | | |
|----------------|-----------|-----------|----------|---------|--------|----------|---------|---------|------------|-----------------------------------|-----------|-----------|
| CLASS | METER/SEC | PERCENT | METERS | METERS | METERS | METERS | METERS | METERS | METERS | MEANDER | BLDG WAKE | USED |
| AT 10.0 METERS | | | | | | | | | | CA=1292.SQ.METERS | | |
| A | 1.6 | 0.43 | 7300. | 0. | 0. | 0. | 1000.0 | 1000.0 | 1000.0 | 2.039E-07 | 2.039E-07 | 2.039E-07 |
| A | 3.3 | 2.64 | 7300. | 0. | 0. | 0. | 1000.0 | 1000.0 | 1000.0 | 9.517E-08 | 9.514E-08 | 9.514E-08 |
| A | 5.6 | 1.64 | 7300. | 0. | 0. | 0. | 1000.0 | 1000.0 | 1000.0 | 5.710E-08 | 5.708E-08 | 5.708E-08 |
| A | 8.2 | 0.11 | 7300. | 0. | 0. | 0. | 1000.0 | 1000.0 | 1000.0 | 3.858E-08 | 3.857E-08 | 3.857E-08 |
| B | 1.6 | 0.43 | 7300. | 0. | 0. | 0. | 848.1 | 962.0 | 848.1 | 2.500E-07 | 2.498E-07 | 2.498E-07 |
| B | 3.3 | 1.81 | 7300. | 0. | 0. | 0. | 848.1 | 962.0 | 848.1 | 1.166E-07 | 1.166E-07 | 1.166E-07 |
| B | 5.6 | 1.45 | 7300. | 0. | 0. | 0. | 848.1 | 962.0 | 848.1 | 6.999E-08 | 6.995E-08 | 6.995E-08 |
| B | 8.2 | 0.06 | 7300. | 0. | 0. | 0. | 848.1 | 962.0 | 848.1 | 4.729E-08 | 4.727E-08 | 4.727E-08 |
| C | 1.6 | 0.17 | 7300. | 0. | 0. | 0. | 644.0 | 373.7 | 644.0 | 8.473E-07 | 8.459E-07 | 8.459E-07 |
| C | 3.3 | 1.19 | 7300. | 0. | 0. | 0. | 644.0 | 373.7 | 644.0 | 3.954E-07 | 3.947E-07 | 3.947E-07 |
| C | 5.6 | 0.99 | 7300. | 0. | 0. | 0. | 644.0 | 373.7 | 644.0 | 2.372E-07 | 2.368E-07 | 2.368E-07 |
| C | 8.2 | 0.09 | 7300. | 0. | 0. | 0. | 644.0 | 373.7 | 644.0 | 1.603E-07 | 1.600E-07 | 1.600E-07 |
| D | 0.2 | 0.01 | 7300. | 0. | 0. | 0. | 453.5 | 111.1 | 515.1 | 2.494E-05 | 2.810E-05 | 2.494E-05 |
| D | 1.6 | 3.46 | 7300. | 0. | 0. | 0. | 453.5 | 111.1 | 515.1 | 3.563E-06 | 4.014E-06 | 3.563E-06 |
| D | 3.3 | 8.42 | 7300. | 0. | 0. | 0. | 453.5 | 111.1 | 481.0 | 1.781E-06 | 1.873E-06 | 1.781E-06 |
| D | 5.6 | 6.06 | 7300. | 0. | 0. | 0. | 453.5 | 111.1 | 456.4 | 1.126E-06 | 1.124E-06 | 1.124E-06 |
| D | 8.2 | 1.22 | 7300. | 0. | 0. | 0. | 453.5 | 111.1 | 453.5 | 7.657E-07 | 7.595E-07 | 7.595E-07 |
| E | 0.2 | 0.09 | 7300. | 0. | 0. | 0. | 322.5 | 67.5 | 410.0 | 5.173E-05 | 6.456E-05 | 5.173E-05 |
| E | 1.6 | 12.70 | 7300. | 0. | 0. | 0. | 322.5 | 67.5 | 410.0 | 7.390E-06 | 9.223E-06 | 7.390E-06 |
| E | 3.3 | 18.93 | 7300. | 0. | 0. | 0. | 322.5 | 67.5 | 357.4 | 3.956E-06 | 4.304E-06 | 3.956E-06 |
| E | 5.6 | 3.49 | 7300. | 0. | 0. | 0. | 322.5 | 67.5 | 325.9 | 2.603E-06 | 2.582E-06 | 2.582E-06 |
| E | 8.2 | 0.17 | 7300. | 0. | 0. | 0. | 322.5 | 67.5 | 322.5 | 1.778E-06 | 1.745E-06 | 1.745E-06 |
| F | 0.2 | 0.11 | 7300. | 0. | 0. | 0. | 222.6 | 40.9 | 313.3 | 1.117E-04 | 1.504E-04 | 1.117E-04 |
| F | 1.6 | 14.17 | 7300. | 0. | 0. | 0. | 222.6 | 40.9 | 313.3 | 1.595E-05 | 2.148E-05 | 1.595E-05 |
| F | 3.3 | 6.04 | 7300. | 0. | 0. | 0. | 222.6 | 40.9 | 255.8 | 9.119E-06 | 1.002E-05 | 9.119E-06 |
| G | 0.2 | 0.10 | 7300. | 0. | 0. | 0. | 153.6 | 24.8 | 257.9 | 2.237E-04 | 3.389E-04 | 2.237E-04 |
| G | 1.6 | 12.04 | 7300. | 0. | 0. | 0. | 153.6 | 24.8 | 257.9 | 3.195E-05 | 4.842E-05 | 3.195E-05 |
| G | 3.3 | 2.01 | 7300. | 0. | 0. | 0. | 153.6 | 24.8 | 187.1 | 2.056E-05 | 2.260E-05 | 2.056E-05 |

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1391 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Ground Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 10.1 meters

DELTA-T HEIGHTS: 10.1-45.7 meters

LOW POPULATION ZONE CALCULATIONS:

E SECTOR BOUNDARY DISTANCE = 7300.0 METERS

LATERAL PLUME MEANDER/BUILDING WAKE CREDIT ALLOWED

AS A FUNCTION OF DOWNWIND DISTANCE.

MEANDER CREDIT IS FOR WINDSPEEDS LESS THAN 6 MPS.

BUILDING WAKE CREDIT ALLOWED: C= 0.5 A= 2584. D= 54.3

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

| | | | | | | | | | |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 2.237E-04 | 1.117E-04 | 5.173E-05 | 3.195E-05 | 2.494E-05 | 2.056E-05 | 1.595E-05 | 9.119E-06 | 7.390E-06 | 3.956E-06 |
| 0.095 | 0.201 | 0.292 | 12.336 | 12.344 | 14.356 | 28.526 | 34.563 | 47.259 | 66.190 |
| 0.00786 | 0.01660 | 0.02407 | 1.01766 | 1.01832 | 1.18431 | 2.35324 | 2.85121 | 3.89858 | 5.46027 |
| 3.563E-06 | 2.582E-06 | 1.781E-06 | 1.745E-06 | 1.124E-06 | 8.459E-07 | 7.595E-07 | 3.947E-07 | 2.498E-07 | 2.368E-07 |
| 69.648 | 73.134 | 81.551 | 81.721 | 87.785 | 87.955 | 89.174 | 90.364 | 90.789 | 91.781 |
| 5.74549 | 6.03305 | 6.72740 | 6.74143 | 7.24173 | 7.25576 | 7.35628 | 7.45448 | 7.48954 | 7.57137 |
| 2.039E-07 | 1.600E-07 | 1.166E-07 | 9.514E-08 | 6.995E-08 | 5.708E-08 | 4.727E-08 | 3.857E-08 | | |
| 92.206 | 92.292 | 94.105 | 96.741 | 98.186 | 99.830 | 99.887 | 100.000 | | |
| 7.60644 | 7.61345 | 7.76307 | 7.98050 | 8.09973 | 8.23532 | 8.24000 | 8.24935 | | |

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

| CHI/Q | WITH RESPECT TO | WHEN THE WIND BLOWS |
|-----------------|-----------------|-----------------------|
| SEC/CUBIC METER | THE TOTAL TIME | INTO THIS SECTOR ONLY |

| | | | |
|------------------|------------------------------------|------------|-------|
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(2)= | 1.016 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(3)= | 2.351 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(4)= | 3.895 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(5)= | 5.456 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(6)= | 5.742 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(7)= | 6.724 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(8)= | 7.238 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(9)= | 8.232 |

| K | I | XQSAVE(K,I) | XQINT(K,I) | XQSLOP(K,I) |
|----|---|-------------|--------------|-------------|
| 13 | 1 | -8.40538 | -13.44553 | -1.33360 |
| 13 | 2 | -10.35129 | -15.17515 | -2.07906 |
| 13 | 3 | -11.04582 | -17.89402 | -3.44798 |
| 13 | 4 | -11.81533 | -18.66356 | -3.88448 |
| 13 | 5 | -12.44017 | -19.07274 | -4.13988 |
| 13 | 6 | -12.54483 | -26.19342 | -8.65569 |
| 13 | 7 | -13.23843 | -31.17334 | -11.98294 |
| 13 | 8 | -13.69861 | -77.01177 | -43.41573 |
| 13 | 9 | -16.67879 | NUMXQ(K) = 9 | |

| | | |
|-----------|-------|--------|
| 9.627E-05 | 0.082 | 1.000 |
| 6.145E-05 | 0.247 | 3.000 |
| 4.908E-05 | 0.412 | 5.000 |
| 3.545E-05 | 0.825 | 10.000 |
| 2.737E-05 | 1.237 | 15.000 |
| 2.163E-05 | 1.650 | 20.000 |
| 1.790E-05 | 2.062 | 25.000 |
| 1.482E-05 | 2.475 | 30.000 |
| 1.177E-05 | 2.887 | 35.000 |
| 9.601E-06 | 3.300 | 40.000 |
| 7.987E-06 | 3.712 | 45.000 |
| 6.676E-06 | 4.125 | 50.000 |
| 5.607E-06 | 4.537 | 55.000 |
| 4.767E-06 | 4.950 | 60.000 |
| 4.096E-06 | 5.362 | 65.000 |
| 3.486E-06 | 5.775 | 70.000 |
| 2.581E-06 | 6.187 | 75.000 |
| 1.940E-06 | 6.599 | 80.000 |
| 1.376E-06 | 7.012 | 85.000 |
| 6.354E-07 | 7.424 | 90.000 |
| 4.495E-05 | 0.5 | 6.06 |

ANNUAL AVERAGE = 2.98E-07

K= 13 FIVEXQ(K) = 4.495E-05 FIVEPR(K) = 6.061

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1393 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 10.1 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.1-45.7 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE ESE SECTOR.

| STABILITY | WINDSPEED | FREQUENCY | DISTANCE | TERRAIN | HT | EFF | PLUME | HT | SIGMA-Y | SIGMA-Z | MEANDER-SY | ** CHI/Q VALUES (SEC/CUBIC METER) | | |
|----------------|-----------|-----------|----------|---------|--------|--------|--------|--------|---------|-----------|------------|-----------------------------------|-----------|------|
| CLASS | METER/SEC | PERCENT | METERS | METERS | METERS | METERS | METERS | METERS | METERS | METERS | METERS | MEANDER | BLDG WAKE | USED |
| AT 10.0 METERS | | | | | | | | | | | | CA=1292.SQ.METERS | | |
| A | 1.6 | 0.39 | 7300. | 0. | 0. | 0. | 1000.0 | 1000.0 | 1000.0 | 2.039E-07 | 2.039E-07 | 2.039E-07 | | |
| A | 3.3 | 2.50 | 7300. | 0. | 0. | 0. | 1000.0 | 1000.0 | 1000.0 | 9.517E-08 | 9.514E-08 | 9.514E-08 | | |
| A | 5.6 | 0.87 | 7300. | 0. | 0. | 0. | 1000.0 | 1000.0 | 1000.0 | 5.710E-08 | 5.708E-08 | 5.708E-08 | | |
| A | 8.2 | 0.19 | 7300. | 0. | 0. | 0. | 1000.0 | 1000.0 | 1000.0 | 3.858E-08 | 3.857E-08 | 3.857E-08 | | |
| B | 1.6 | 0.29 | 7300. | 0. | 0. | 0. | 848.1 | 962.0 | 848.1 | 2.500E-07 | 2.498E-07 | 2.498E-07 | | |
| B | 3.3 | 1.71 | 7300. | 0. | 0. | 0. | 848.1 | 962.0 | 848.1 | 1.166E-07 | 1.166E-07 | 1.166E-07 | | |
| B | 5.6 | 1.71 | 7300. | 0. | 0. | 0. | 848.1 | 962.0 | 848.1 | 6.999E-08 | 6.995E-08 | 6.995E-08 | | |
| B | 8.2 | 0.39 | 7300. | 0. | 0. | 0. | 848.1 | 962.0 | 848.1 | 4.729E-08 | 4.727E-08 | 4.727E-08 | | |
| B | 10.7 | 0.02 | 7300. | 0. | 0. | 0. | 848.1 | 962.0 | 848.1 | 3.645E-08 | 3.643E-08 | 3.643E-08 | | |
| C | 1.6 | 0.17 | 7300. | 0. | 0. | 0. | 644.0 | 373.7 | 644.0 | 8.473E-07 | 8.459E-07 | 8.459E-07 | | |
| C | 3.3 | 0.89 | 7300. | 0. | 0. | 0. | 644.0 | 373.7 | 644.0 | 3.954E-07 | 3.947E-07 | 3.947E-07 | | |
| C | 5.6 | 1.28 | 7300. | 0. | 0. | 0. | 644.0 | 373.7 | 644.0 | 2.372E-07 | 2.368E-07 | 2.368E-07 | | |
| C | 8.2 | 0.29 | 7300. | 0. | 0. | 0. | 644.0 | 373.7 | 644.0 | 1.603E-07 | 1.600E-07 | 1.600E-07 | | |
| D | 0.2 | 0.01 | 7300. | 0. | 0. | 0. | 453.5 | 111.1 | 515.1 | 2.494E-05 | 2.810E-05 | 2.494E-05 | | |
| D | 1.6 | 3.08 | 7300. | 0. | 0. | 0. | 453.5 | 111.1 | 515.1 | 3.563E-06 | 4.014E-06 | 3.563E-06 | | |
| D | 3.3 | 10.41 | 7300. | 0. | 0. | 0. | 453.5 | 111.1 | 481.0 | 1.781E-06 | 1.873E-06 | 1.781E-06 | | |
| D | 5.6 | 13.85 | 7300. | 0. | 0. | 0. | 453.5 | 111.1 | 456.4 | 1.126E-06 | 1.124E-06 | 1.124E-06 | | |
| D | 8.2 | 1.37 | 7300. | 0. | 0. | 0. | 453.5 | 111.1 | 453.5 | 7.657E-07 | 7.595E-07 | 7.595E-07 | | |
| D | 10.7 | 0.02 | 7300. | 0. | 0. | 0. | 453.5 | 111.1 | 453.5 | 5.902E-07 | 5.854E-07 | 5.854E-07 | | |
| E | 0.2 | 0.09 | 7300. | 0. | 0. | 0. | 322.5 | 67.5 | 410.0 | 5.173E-05 | 6.456E-05 | 5.173E-05 | | |
| E | 1.6 | 11.99 | 7300. | 0. | 0. | 0. | 322.5 | 67.5 | 410.0 | 7.390E-06 | 9.223E-06 | 7.390E-06 | | |
| E | 3.3 | 24.18 | 7300. | 0. | 0. | 0. | 322.5 | 67.5 | 357.4 | 3.956E-06 | 4.304E-06 | 3.956E-06 | | |
| E | 5.6 | 4.65 | 7300. | 0. | 0. | 0. | 322.5 | 67.5 | 325.9 | 2.603E-06 | 2.582E-06 | 2.582E-06 | | |
| E | 8.2 | 0.19 | 7300. | 0. | 0. | 0. | 322.5 | 67.5 | 322.5 | 1.778E-06 | 1.745E-06 | 1.745E-06 | | |
| F | 0.2 | 0.07 | 7300. | 0. | 0. | 0. | 222.6 | 40.9 | 313.3 | 1.117E-04 | 1.504E-04 | 1.117E-04 | | |
| F | 1.6 | 10.02 | 7300. | 0. | 0. | 0. | 222.6 | 40.9 | 313.3 | 1.595E-05 | 2.148E-05 | 1.595E-05 | | |
| F | 3.3 | 3.28 | 7300. | 0. | 0. | 0. | 222.6 | 40.9 | 255.8 | 9.119E-06 | 1.002E-05 | 9.119E-06 | | |
| F | 5.6 | 0.02 | 7300. | 0. | 0. | 0. | 222.6 | 40.9 | 225.6 | 6.202E-06 | 6.015E-06 | 6.015E-06 | | |
| G | 0.2 | 0.04 | 7300. | 0. | 0. | 0. | 153.6 | 24.8 | 257.9 | 2.237E-04 | 3.389E-04 | 2.237E-04 | | |
| G | 1.6 | 5.64 | 7300. | 0. | 0. | 0. | 153.6 | 24.8 | 257.9 | 3.195E-05 | 4.842E-05 | 3.195E-05 | | |
| G | 3.3 | 0.39 | 7300. | 0. | 0. | 0. | 153.6 | 24.8 | 187.1 | 2.056E-05 | 2.260E-05 | 2.056E-05 | | |

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1394 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Ground Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 10.1 meters

DELTA-T HEIGHTS: 10.1-45.7 meters

LOW POPULATION ZONE CALCULATIONS:

ESE SECTOR BOUNDARY DISTANCE = 7300.0 METERS

LATERAL PLUME MEANDER/BUILDING WAKE CREDIT ALLOWED

AS A FUNCTION OF DOWNWIND DISTANCE.

MEANDER CREDIT IS FOR WINDSPEEDS LESS THAN 6 MPS.

BUILDING WAKE CREDIT ALLOWED: C= 0.5 A= 2584. D= 54.3

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

| | | | | | | | | | |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 2.237E-04 | 1.117E-04 | 5.173E-05 | 3.195E-05 | 2.494E-05 | 2.056E-05 | 1.595E-05 | 9.119E-06 | 7.390E-06 | 6.015E-06 |
| 0.045 | 0.119 | 0.205 | 5.841 | 5.848 | 6.234 | 16.253 | 19.529 | 31.524 | 31.548 |
| 0.00433 | 0.01160 | 0.01990 | 0.56696 | 0.56765 | 0.60506 | 1.57761 | 1.89556 | 3.05982 | 3.06216 |
| 3.956E-06 | 3.563E-06 | 2.582E-06 | 1.781E-06 | 1.745E-06 | 1.124E-06 | 8.459E-07 | 7.595E-07 | 5.854E-07 | 3.947E-07 |
| 55.730 | 58.813 | 63.462 | 73.867 | 74.060 | 87.909 | 88.077 | 89.450 | 89.474 | 90.366 |
| 5.40938 | 5.70863 | 6.15983 | 7.16979 | 7.18850 | 8.53277 | 8.54914 | 8.68239 | 8.68473 | 8.77123 |
| 2.498E-07 | 2.368E-07 | 2.039E-07 | 1.600E-07 | 1.166E-07 | 9.514E-08 | 6.995E-08 | 5.708E-08 | 4.727E-08 | 3.857E-08 |
| 90.655 | 91.931 | 92.317 | 92.606 | 94.316 | 96.821 | 98.531 | 99.398 | 99.783 | 99.976 |
| 8.79929 | 8.92319 | 8.96060 | 8.98866 | 9.15464 | 9.39778 | 9.56377 | 9.64794 | 9.68534 | 9.70404 |
| 3.643E-08 | | | | | | | | | |
| 100.000 | | | | | | | | | |
| 9.70638 | | | | | | | | | |

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE

ORDERED X/Q-FREQUENCY VALUES, AND AS

PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS

SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

| | | | |
|------------------|------------------------------------|-------------|-------|
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(2) = | 0.566 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(3) = | 1.576 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(4) = | 5.406 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(5) = | 5.705 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(6) = | 8.529 |

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(7) = .8.679

| K | I | XQSAVE(K, I) | XQINT(K, I) | XQSLOP(K, I) |
|----|---|--------------|--------------|--------------|
| 14 | 1 | -8.40538 | -13.88919 | -1.39701 |
| 14 | 2 | -10.35129 | -14.95571 | -1.81815 |
| 14 | 3 | -11.04582 | -16.56041 | -2.56435 |
| 14 | 4 | -12.44017 | -18.74070 | -3.92132 |
| 14 | 5 | -12.54483 | -21.23772 | -5.50167 |
| 14 | 6 | -13.69861 | -70.06627 | -41.13431 |
| 14 | 7 | -14.09066 | NUMXQ(K) = 7 | |
| | | 7.054E-05 | 0.097 | 1.000 |
| | | 4.378E-05 | 0.291 | 3.000 |
| | | 3.446E-05 | 0.485 | 5.000 |
| | | 2.243E-05 | 0.971 | 10.000 |
| | | 1.690E-05 | 1.456 | 15.000 |
| | | 1.286E-05 | 1.941 | 20.000 |
| | | 1.012E-05 | 2.427 | 25.000 |
| | | 8.271E-06 | 2.912 | 30.000 |
| | | 6.938E-06 | 3.397 | 35.000 |
| | | 5.935E-06 | 3.883 | 40.000 |
| | | 5.154E-06 | 4.368 | 45.000 |
| | | 4.531E-06 | 4.853 | 50.000 |
| | | 4.023E-06 | 5.339 | 55.000 |
| | | 3.373E-06 | 5.824 | 60.000 |
| | | 2.700E-06 | 6.309 | 65.000 |
| | | 2.190E-06 | 6.794 | 70.000 |
| | | 1.796E-06 | 7.280 | 75.000 |
| | | 1.488E-06 | 7.765 | 80.000 |
| | | 1.243E-06 | 8.250 | 85.000 |
| | | 3.397E-05 | 0.5 | 5.15 |

ANNUAL AVERAGE = 2.58E-07

K= 14 FIVEXQ(K) = 3.397E-05 FIVEPR(K) = 5.151

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1396 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Ground Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 10.1 meters

DELTA-T HEIGHTS: 10.1-45.7 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE SE SECTOR.

| STABILITY | WINDSPEED | FREQUENCY | DISTANCE | TERRAIN | HT EFF | PLUME HT | SIGMA-Y | SIGMA-Z | MEANDER-SY | ** CHI/Q VALUES (SEC/CUBIC METER) | | |
|----------------|-----------|-----------|----------|---------|--------|----------|---------|---------|------------|-----------------------------------|-----------|-----------|
| CLASS | METER/SEC | PERCENT | METERS | METERS | METERS | METERS | METERS | METERS | METERS | MEANDER | BLDG WAKE | USED |
| AT 10.0 METERS | | | | | | | | | | CA=1292.SQ.METERS | | |
| A | 1.6 | 0.49 | 7300. | 0. | 0. | 0. | 1000.0 | 1000.0 | 1000.0 | 2.039E-07 | 2.039E-07 | 2.039E-07 |
| A | 3.3 | 1.58 | 7300. | 0. | 0. | 0. | 1000.0 | 1000.0 | 1000.0 | 9.517E-08 | 9.514E-08 | 9.514E-08 |
| A | 5.6 | 0.51 | 7300. | 0. | 0. | 0. | 1000.0 | 1000.0 | 1000.0 | 5.710E-08 | 5.708E-08 | 5.708E-08 |
| A | 8.2 | 0.06 | 7300. | 0. | 0. | 0. | 1000.0 | 1000.0 | 1000.0 | 3.858E-08 | 3.857E-08 | 3.857E-08 |
| B | 1.6 | 0.18 | 7300. | 0. | 0. | 0. | 848.1 | 962.0 | 848.1 | 2.500E-07 | 2.498E-07 | 2.498E-07 |
| B | 3.3 | 1.40 | 7300. | 0. | 0. | 0. | 848.1 | 962.0 | 848.1 | 1.166E-07 | 1.166E-07 | 1.166E-07 |
| B | 5.6 | 1.83 | 7300. | 0. | 0. | 0. | 848.1 | 962.0 | 848.1 | 6.999E-08 | 6.995E-08 | 6.995E-08 |
| B | 8.2 | 0.43 | 7300. | 0. | 0. | 0. | 848.1 | 962.0 | 848.1 | 4.729E-08 | 4.727E-08 | 4.727E-08 |
| C | 1.6 | 0.18 | 7300. | 0. | 0. | 0. | 644.0 | 373.7 | 644.0 | 8.473E-07 | 8.459E-07 | 8.459E-07 |
| C | 3.3 | 0.94 | 7300. | 0. | 0. | 0. | 644.0 | 373.7 | 644.0 | 3.954E-07 | 3.947E-07 | 3.947E-07 |
| C | 5.6 | 1.64 | 7300. | 0. | 0. | 0. | 644.0 | 373.7 | 644.0 | 2.372E-07 | 2.368E-07 | 2.368E-07 |
| C | 8.2 | 0.41 | 7300. | 0. | 0. | 0. | 644.0 | 373.7 | 644.0 | 1.603E-07 | 1.600E-07 | 1.600E-07 |
| D | 0.2 | 0.01 | 7300. | 0. | 0. | 0. | 453.5 | 111.1 | 515.1 | 2.494E-05 | 2.810E-05 | 2.494E-05 |
| D | 1.6 | 3.94 | 7300. | 0. | 0. | 0. | 453.5 | 111.1 | 515.1 | 3.563E-06 | 4.014E-06 | 3.563E-06 |
| D | 3.3 | 15.18 | 7300. | 0. | 0. | 0. | 453.5 | 111.1 | 481.0 | 1.781E-06 | 1.873E-06 | 1.781E-06 |
| D | 5.6 | 18.92 | 7300. | 0. | 0. | 0. | 453.5 | 111.1 | 456.4 | 1.126E-06 | 1.124E-06 | 1.124E-06 |
| D | 8.2 | 3.47 | 7300. | 0. | 0. | 0. | 453.5 | 111.1 | 453.5 | 7.657E-07 | 7.595E-07 | 7.595E-07 |
| E | 0.2 | 0.09 | 7300. | 0. | 0. | 0. | 322.5 | 67.5 | 410.0 | 5.173E-05 | 6.456E-05 | 5.173E-05 |
| E | 1.6 | 12.49 | 7300. | 0. | 0. | 0. | 322.5 | 67.5 | 410.0 | 7.390E-06 | 9.223E-06 | 7.390E-06 |
| E | 3.3 | 19.45 | 7300. | 0. | 0. | 0. | 322.5 | 67.5 | 357.4 | 3.956E-06 | 4.304E-06 | 3.956E-06 |
| E | 5.6 | 5.27 | 7300. | 0. | 0. | 0. | 322.5 | 67.5 | 325.9 | 2.603E-06 | 2.582E-06 | 2.582E-06 |
| E | 8.2 | 0.18 | 7300. | 0. | 0. | 0. | 322.5 | 67.5 | 322.5 | 1.778E-06 | 1.745E-06 | 1.745E-06 |
| F | 0.2 | 0.05 | 7300. | 0. | 0. | 0. | 222.6 | 40.9 | 313.3 | 1.117E-04 | 1.504E-04 | 1.117E-04 |
| F | 1.6 | 6.79 | 7300. | 0. | 0. | 0. | 222.6 | 40.9 | 313.3 | 1.595E-05 | 2.148E-05 | 1.595E-05 |
| F | 3.3 | 1.87 | 7300. | 0. | 0. | 0. | 222.6 | 40.9 | 255.8 | 9.119E-06 | 1.002E-05 | 9.119E-06 |
| F | 5.6 | 0.02 | 7300. | 0. | 0. | 0. | 222.6 | 40.9 | 225.6 | 6.202E-06 | 6.015E-06 | 6.015E-06 |
| G | 0.2 | 0.02 | 7300. | 0. | 0. | 0. | 153.6 | 24.8 | 257.9 | 2.237E-04 | 3.389E-04 | 2.237E-04 |
| G | 1.6 | 2.44 | 7300. | 0. | 0. | 0. | 153.6 | 24.8 | 257.9 | 3.195E-05 | 4.842E-05 | 3.195E-05 |
| G | 3.3 | 0.14 | 7300. | 0. | 0. | 0. | 153.6 | 24.8 | 187.1 | 2.056E-05 | 2.260E-05 | 2.056E-05 |

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1397 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 10.1 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.1-45.7 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

SE SECTOR BOUNDARY DISTANCE = 7300.0 METERS

LATERAL PLUME MEANDER/BUILDING WAKE CREDIT ALLOWED

AS A FUNCTION OF DOWNWIND DISTANCE.

MEANDER CREDIT IS FOR WINDSPEEDS LESS THAN 6 MPS.

BUILDING WAKE CREDIT ALLOWED: C= 0.5 A= 2584. D= 54.3

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

| | | | | | | | | | |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 2.237E-04 | 1.117E-04 | 5.173E-05 | 3.195E-05 | 2.494E-05 | 2.056E-05 | 1.595E-05 | 9.119E-06 | 7.390E-06 | 6.015E-06 |
| 0.019 | 0.070 | 0.159 | 2.601 | 2.610 | 2.753 | 9.544 | 11.411 | 23.905 | 23.926 |
| 0.00220 | 0.00798 | 0.01814 | 0.29635 | 0.29738 | 0.31375 | 1.08758 | 1.30033 | 2.72409 | 2.72643 |
| 3.956E-06 | 3.563E-06 | 2.582E-06 | 1.781E-06 | 1.745E-06 | 1.124E-06 | 8.459E-07 | 7.595E-07 | 3.947E-07 | 2.498E-07 |
| 43.375 | 47.314 | 52.587 | 67.769 | 67.954 | 86.870 | 87.054 | 90.522 | 91.465 | 91.650 |
| 4.94273 | 5.39160 | 5.99243 | 7.72245 | 7.74349 | 9.89901 | 9.92005 | 10.31515 | 10.42269 | 10.44373 |
| 2.368E-07 | 2.039E-07 | 1.600E-07 | 1.166E-07 | 9.514E-08 | 6.995E-08 | 5.708E-08 | 4.727E-08 | 3.857E-08 | |
| 93.291 | 93.784 | 94.194 | 95.589 | 97.169 | 98.995 | 99.508 | 99.938 | 100.000 | |
| 10.63076 | 10.68687 | 10.73363 | 10.89260 | 11.07262 | 11.28069 | 11.33914 | 11.38823 | 11.39524 | |

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

| CHI/Q | WITH RESPECT TO | WHEN THE WIND BLOWS |
|-----------------|-----------------|-----------------------|
| SEC/CUBIC METER | THE TOTAL TIME | INTO THIS SECTOR ONLY |

| | | | |
|------------------|------------------------------------|-------------|--------|
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(2) = | 0.296 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(3) = | 1.086 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(4) = | 2.721 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(5) = | 4.939 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(6) = | 5.388 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(7) = | 9.896 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE(8) = | 10.312 |

K I XQSAVE(K,I) XQINT(K,I) XQSLOP(K,I)

Calculation No. PM-1055 Revision 0

Attachment J

Page 1398 of 1411

15 1 -8.40538 -14.36887 -1.45979
 15 2 -10.35129 -14.53344 -1.51958
 15 3 -11.04582 -15.79721 -2.07021
 15 4 -11.81533 -16.22378 -2.29199
 15 5 -12.44017 -16.51185 -2.46650
 15 6 -12.54483 -18.32850 -3.59600
 15 7 -13.69861 -35.13582 -16.65015
 15 8 -14.09066 NUMXQ(K) = 8

| | | |
|-----------|--------|--------|
| 4.946E-05 | 0.114 | 1.000 |
| 2.974E-05 | 0.342 | 3.000 |
| 2.282E-05 | 0.570 | 5.000 |
| 1.538E-05 | 1.140 | 10.000 |
| 1.106E-05 | 1.709 | 15.000 |
| 8.655E-06 | 2.279 | 20.000 |
| 7.067E-06 | 2.849 | 25.000 |
| 5.871E-06 | 3.419 | 30.000 |
| 4.994E-06 | 3.988 | 35.000 |
| 4.325E-06 | 4.558 | 40.000 |
| 3.786E-06 | 5.128 | 45.000 |
| 3.229E-06 | 5.698 | 50.000 |
| 2.718E-06 | 6.267 | 55.000 |
| 2.314E-06 | 6.837 | 60.000 |
| 1.990E-06 | 7.407 | 65.000 |
| 1.727E-06 | 7.977 | 70.000 |
| 1.509E-06 | 8.546 | 75.000 |
| 1.328E-06 | 9.116 | 80.000 |
| 1.175E-06 | 9.686 | 85.000 |
| 8.026E-07 | 10.256 | 90.000 |

2.446E-05 0.5 4.39

ANNUAL AVERAGE = 2.42E-07

K= 15 FIVEXQ(K) = 2.446E-05 FIVEPR(K) = 4.388

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 01/28/03

Page 1399 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Ground Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 10.1 meters

DELTA-T HEIGHTS: 10.1-45.7 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE SSE SECTOR.

| STABILITY | WINDSPEED | FREQUENCY | DISTANCE | TERRAIN | HT | EFF | PLUME | HT | SIGMA-Y | SIGMA-Z | MEANDER-SY | ** CHI/Q VALUES (SEC/CUBIC METER) | | |
|----------------|-----------|-----------|----------|---------|--------|--------|--------|--------|---------|-----------|------------|-----------------------------------|-----------|------|
| CLASS | METER/SEC | PERCENT | METERS | METERS | METERS | METERS | METERS | METERS | METERS | METERS | METERS | MEANDER | BLDG WAKE | USED |
| AT 10.0 METERS | | | | | | | | | | | | CA=1292.SQ.METERS | | |
| A | 1.6 | 0.84 | 7300. | 0. | 0. | 0. | 1000.0 | 1000.0 | 1000.0 | 2.039E-07 | 2.039E-07 | 2.039E-07 | | |
| A | 3.3 | 4.22 | 7300. | 0. | 0. | 0. | 1000.0 | 1000.0 | 1000.0 | 9.517E-08 | 9.514E-08 | 9.514E-08 | | |
| A | 5.6 | 1.88 | 7300. | 0. | 0. | 0. | 1000.0 | 1000.0 | 1000.0 | 5.710E-08 | 5.708E-08 | 5.708E-08 | | |
| A | 8.2 | 0.02 | 7300. | 0. | 0. | 0. | 1000.0 | 1000.0 | 1000.0 | 3.858E-08 | 3.857E-08 | 3.857E-08 | | |
| B | 1.6 | 0.79 | 7300. | 0. | 0. | 0. | 848.1 | 962.0 | 848.1 | 2.500E-07 | 2.498E-07 | 2.498E-07 | | |
| B | 3.3 | 3.47 | 7300. | 0. | 0. | 0. | 848.1 | 962.0 | 848.1 | 1.166E-07 | 1.166E-07 | 1.166E-07 | | |
| B | 5.6 | 3.51 | 7300. | 0. | 0. | 0. | 848.1 | 962.0 | 848.1 | 6.999E-08 | 6.995E-08 | 6.995E-08 | | |
| B | 8.2 | 0.19 | 7300. | 0. | 0. | 0. | 848.1 | 962.0 | 848.1 | 4.729E-08 | 4.727E-08 | 4.727E-08 | | |
| C | 1.6 | 0.69 | 7300. | 0. | 0. | 0. | 644.0 | 373.7 | 644.0 | 8.473E-07 | 8.459E-07 | 8.459E-07 | | |
| C | 3.3 | 2.61 | 7300. | 0. | 0. | 0. | 644.0 | 373.7 | 644.0 | 3.954E-07 | 3.947E-07 | 3.947E-07 | | |
| C | 5.6 | 2.61 | 7300. | 0. | 0. | 0. | 644.0 | 373.7 | 644.0 | 2.372E-07 | 2.368E-07 | 2.368E-07 | | |
| C | 8.2 | 0.33 | 7300. | 0. | 0. | 0. | 644.0 | 373.7 | 644.0 | 1.603E-07 | 1.600E-07 | 1.600E-07 | | |
| D | 0.2 | 0.01 | 7300. | 0. | 0. | 0. | 453.5 | 111.1 | 515.1 | 2.494E-05 | 2.810E-05 | 2.494E-05 | | |
| D | 1.6 | 4.97 | 7300. | 0. | 0. | 0. | 453.5 | 111.1 | 515.1 | 3.563E-06 | 4.014E-06 | 3.563E-06 | | |
| D | 3.3 | 19.27 | 7300. | 0. | 0. | 0. | 453.5 | 111.1 | 481.0 | 1.781E-06 | 1.873E-06 | 1.781E-06 | | |
| D | 5.6 | 16.55 | 7300. | 0. | 0. | 0. | 453.5 | 111.1 | 456.4 | 1.126E-06 | 1.124E-06 | 1.124E-06 | | |
| D | 8.2 | 2.76 | 7300. | 0. | 0. | 0. | 453.5 | 111.1 | 453.5 | 7.657E-07 | 7.595E-07 | 7.595E-07 | | |
| D | 24.5 | 0.06 | 7300. | 0. | 0. | 0. | 453.5 | 111.1 | 453.5 | 2.575E-07 | 2.555E-07 | 2.555E-07 | | |
| E | 0.2 | 0.06 | 7300. | 0. | 0. | 0. | 322.5 | 67.5 | 410.0 | 5.173E-05 | 6.456E-05 | 5.173E-05 | | |
| E | 1.6 | 8.92 | 7300. | 0. | 0. | 0. | 322.5 | 67.5 | 410.0 | 7.390E-06 | 9.223E-06 | 7.390E-06 | | |
| E | 3.3 | 15.90 | 7300. | 0. | 0. | 0. | 322.5 | 67.5 | 357.4 | 3.956E-06 | 4.304E-06 | 3.956E-06 | | |
| E | 5.6 | 4.41 | 7300. | 0. | 0. | 0. | 322.5 | 67.5 | 325.9 | 2.603E-06 | 2.582E-06 | 2.582E-06 | | |
| E | 8.2 | 0.21 | 7300. | 0. | 0. | 0. | 322.5 | 67.5 | 322.5 | 1.778E-06 | 1.745E-06 | 1.745E-06 | | |
| E | 10.7 | 0.02 | 7300. | 0. | 0. | 0. | 322.5 | 67.5 | 322.5 | 1.370E-06 | 1.345E-06 | 1.345E-06 | | |
| E | 24.5 | 0.13 | 7300. | 0. | 0. | 0. | 322.5 | 67.5 | 322.5 | 5.980E-07 | 5.869E-07 | 5.869E-07 | | |
| F | 0.2 | 0.03 | 7300. | 0. | 0. | 0. | 222.6 | 40.9 | 313.3 | 1.117E-04 | 1.504E-04 | 1.117E-04 | | |
| F | 1.6 | 3.39 | 7300. | 0. | 0. | 0. | 222.6 | 40.9 | 313.3 | 1.595E-05 | 2.148E-05 | 1.595E-05 | | |
| F | 3.3 | 0.79 | 7300. | 0. | 0. | 0. | 222.6 | 40.9 | 255.8 | 9.119E-06 | 1.002E-05 | 9.119E-06 | | |
| F | 5.6 | 0.04 | 7300. | 0. | 0. | 0. | 222.6 | 40.9 | 225.6 | 6.202E-06 | 6.015E-06 | 6.015E-06 | | |
| G | 0.2 | 0.01 | 7300. | 0. | 0. | 0. | 153.6 | 24.8 | 257.9 | 2.237E-04 | 3.389E-04 | 2.237E-04 | | |
| G | 1.6 | 1.21 | 7300. | 0. | 0. | 0. | 153.6 | 24.8 | 257.9 | 3.195E-05 | 4.842E-05 | 3.195E-05 | | |
| G | 3.3 | 0.06 | 7300. | 0. | 0. | 0. | 153.6 | 24.8 | 187.1 | 2.056E-05 | 2.260E-05 | 2.056E-05 | | |
| G | 5.6 | 0.02 | 7300. | 0. | 0. | 0. | 153.6 | 24.8 | 156.4 | 1.476E-05 | 1.356E-05 | 1.356E-05 | | |

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1400 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Ground Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 10.1 meters

DELTA-T HEIGHTS: 10.1-45.7 meters

LOW POPULATION ZONE CALCULATIONS:

SSE SECTOR BOUNDARY DISTANCE = 7300.0 METERS

LATERAL PLUME MEANDER/BUILDING WAKE CREDIT ALLOWED

AS A FUNCTION OF DOWNWIND DISTANCE.

MEANDER CREDIT IS FOR WINDSPEEDS LESS THAN 6 MPS.

BUILDING WAKE CREDIT ALLOWED: C= 0.5 A= 2584. D= 54.3

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

| | | | | | | | | | |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 2.237E-04 | 1.117E-04 | 5.173E-05 | 3.195E-05 | 2.494E-05 | 2.056E-05 | 1.595E-05 | 1.356E-05 | 9.119E-06 | 7.390E-06 |
| 0.010 | 0.035 | 0.099 | 1.311 | 1.322 | 1.385 | 4.770 | 4.791 | 5.585 | 14.508 |
| 0.00107 | 0.00390 | 0.01102 | 0.14662 | 0.14790 | 0.15492 | 0.53365 | 0.53599 | 0.62483 | 1.62310 |
| 6.015E-06 | 3.956E-06 | 3.563E-06 | 2.582E-06 | 1.781E-06 | 1.745E-06 | 1.345E-06 | 1.124E-06 | 8.459E-07 | 7.595E-07 |
| 14.550 | 30.453 | 35.427 | 39.836 | 59.104 | 59.313 | 59.333 | 75.884 | 76.574 | 79.332 |
| 1.62777 | 3.40689 | 3.96331 | 4.45660 | 6.61211 | 6.63549 | 6.63783 | 8.48942 | 8.56657 | 8.87517 |
| 5.869E-07 | 3.947E-07 | 2.555E-07 | 2.498E-07 | 2.368E-07 | 2.039E-07 | 1.600E-07 | 1.166E-07 | 9.514E-08 | 6.995E-08 |
| 79.458 | 82.070 | 82.133 | 82.927 | 85.539 | 86.375 | 86.709 | 90.178 | 94.399 | 97.910 |
| 8.88919 | 9.18143 | 9.18844 | 9.27728 | 9.56951 | 9.66303 | 9.70043 | 10.08852 | 10.56077 | 10.95353 |
| 5.708E-08 | 4.727E-08 | 3.857E-08 | | | | | | | |
| 99.791 | 99.979 | 100.000 | | | | | | | |
| 11.16394 | 11.18498 | 11.18732 | | | | | | | |

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

| | | | |
|------------------|------------------------------------|-------------|-------|
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE (2)= | 0.146 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE (3)= | 0.533 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE (4)= | 1.621 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE (5)= | 3.960 |
| HANDCHECK GRAPH: | SLOPE LT -1.0 FOR LOW PERCENTAGES. | XSAVE (6)= | 6.608 |

Calculation No. PM-1055 Revision 0

Attachment J

Page 1401 of 1411

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(7)= 8.486
HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(8)= 8.872

| K | I | XQSAVE(K,I) | XQINT(K,I) | XQSLOP(K,I) |
|----|---|-------------|-------------|-------------|
| 16 | 1 | -8.40538 | -14.89552 | -1.52744 |
| 16 | 2 | -10.35129 | -15.25439 | -1.64807 |
| 16 | 3 | -11.04582 | -15.78638 | -1.85640 |
| 16 | 4 | -11.81533 | -15.88159 | -1.90091 |
| 16 | 5 | -12.54483 | -17.42011 | -2.77738 |
| 16 | 6 | -13.23843 | -18.46740 | -3.47297 |
| 16 | 7 | -13.69861 | -35.74646 | -16.05679 |
| 16 | 8 | -14.09066 | NUMXQ(K)= 8 | |
| | | 3.621E-05 | 0.112 | 1.000 |
| | | 2.068E-05 | 0.336 | 3.000 |
| | | 1.547E-05 | 0.559 | 5.000 |
| | | 9.678E-06 | 1.119 | 10.000 |
| | | 7.205E-06 | 1.678 | 15.000 |
| | | 5.754E-06 | 2.237 | 20.000 |
| | | 4.799E-06 | 2.797 | 25.000 |
| | | 4.116E-06 | 3.356 | 30.000 |
| | | 3.601E-06 | 3.916 | 35.000 |
| | | 3.042E-06 | 4.475 | 40.000 |
| | | 2.600E-06 | 5.034 | 45.000 |
| | | 2.252E-06 | 5.594 | 50.000 |
| | | 1.972E-06 | 6.153 | 55.000 |
| | | 1.733E-06 | 6.712 | 60.000 |
| | | 1.500E-06 | 7.272 | 65.000 |
| | | 1.308E-06 | 7.831 | 70.000 |
| | | 1.149E-06 | 8.390 | 75.000 |
| | | 1.656E-05 | 0.5 | 4.47 |

ANNUAL AVERAGE = 1.76E-07

K= 16 FIVEXQ(K)= 1.656E-05 FIVEPR(K)= 4.469

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 01/28/03

Page 1402 of 1411

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Ground Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 10.1 meters

DELTA-T HEIGHTS: 10.1 45.7 meters

PARAMETER VALUES FOR THE CHI/Q CALCULATIONS FOR THE ALL SECTOR.

| STABILITY | WINDSPEED | FREQUENCY | DISTANCE | TERRAIN | HT | EFF | PLUME | HT | SIGMA-Y | SIGMA-Z | MEANDER-SY | ** CHI/Q VALUES (SEC/CUBIC METER) | | |
|----------------|-----------|-----------|----------|---------|--------|--------|--------|--------|-----------|-----------|------------|-----------------------------------|-----------|-----------|
| CLASS | METER/SEC | PERCENT | METERS | METERS | METERS | METERS | METERS | METERS | METERS | METERS | METERS | MEANDER | BLDG WAKE | USED |
| AT 10.0 METERS | | | | | | | | | | | | CA=1292.SQ.METERS | | |
| A | 1.6 | 2.07 | 7300. | 0. | 0. | 1000.0 | 1000.0 | 1000.0 | 2.039E-07 | 2.039E-07 | 2.039E-07 | 2.039E-07 | 2.039E-07 | 2.039E-07 |
| A | 3.3 | 3.09 | 7300. | 0. | 0. | 1000.0 | 1000.0 | 1000.0 | 9.517E-08 | 9.514E-08 | 9.514E-08 | 9.517E-08 | 9.514E-08 | 9.514E-08 |
| A | 5.6 | 1.12 | 7300. | 0. | 0. | 1000.0 | 1000.0 | 1000.0 | 5.710E-08 | 5.708E-08 | 5.708E-08 | 5.710E-08 | 5.708E-08 | 5.708E-08 |
| A | 8.2 | 0.09 | 7300. | 0. | 0. | 1000.0 | 1000.0 | 1000.0 | 3.858E-08 | 3.857E-08 | 3.857E-08 | 3.858E-08 | 3.857E-08 | 3.857E-08 |
| A | 24.5 | 0.01 | 7300. | 0. | 0. | 1000.0 | 1000.0 | 1000.0 | 1.298E-08 | 1.297E-08 | 1.297E-08 | 1.298E-08 | 1.297E-08 | 1.297E-08 |
| B | 1.6 | 1.14 | 7300. | 0. | 0. | 848.1 | 962.0 | 848.1 | 2.500E-07 | 2.498E-07 | 2.498E-07 | 2.500E-07 | 2.498E-07 | 2.498E-07 |
| B | 3.3 | 2.32 | 7300. | 0. | 0. | 848.1 | 962.0 | 848.1 | 1.166E-07 | 1.166E-07 | 1.166E-07 | 1.166E-07 | 1.166E-07 | 1.166E-07 |
| B | 5.6 | 1.66 | 7300. | 0. | 0. | 848.1 | 962.0 | 848.1 | 6.999E-08 | 6.995E-08 | 6.995E-08 | 6.999E-08 | 6.995E-08 | 6.995E-08 |
| B | 8.2 | 0.19 | 7300. | 0. | 0. | 848.1 | 962.0 | 848.1 | 4.729E-08 | 4.727E-08 | 4.727E-08 | 4.729E-08 | 4.727E-08 | 4.727E-08 |
| B | 10.7 | 0.00 | 7300. | 0. | 0. | 848.1 | 962.0 | 848.1 | 3.645E-08 | 3.643E-08 | 3.643E-08 | 3.645E-08 | 3.643E-08 | 3.643E-08 |
| B | 24.5 | 0.00 | 7300. | 0. | 0. | 848.1 | 962.0 | 848.1 | 1.591E-08 | 1.590E-08 | 1.590E-08 | 1.591E-08 | 1.590E-08 | 1.590E-08 |
| C | 1.6 | 0.70 | 7300. | 0. | 0. | 644.0 | 373.7 | 644.0 | 8.473E-07 | 8.459E-07 | 8.459E-07 | 8.473E-07 | 8.459E-07 | 8.459E-07 |
| C | 3.3 | 1.33 | 7300. | 0. | 0. | 644.0 | 373.7 | 644.0 | 3.954E-07 | 3.947E-07 | 3.947E-07 | 3.954E-07 | 3.947E-07 | 3.947E-07 |
| C | 5.6 | 1.13 | 7300. | 0. | 0. | 644.0 | 373.7 | 644.0 | 2.372E-07 | 2.368E-07 | 2.368E-07 | 2.372E-07 | 2.368E-07 | 2.368E-07 |
| C | 8.2 | 0.15 | 7300. | 0. | 0. | 644.0 | 373.7 | 644.0 | 1.603E-07 | 1.600E-07 | 1.600E-07 | 1.603E-07 | 1.600E-07 | 1.600E-07 |
| C | 10.7 | 0.00 | 7300. | 0. | 0. | 644.0 | 373.7 | 644.0 | 1.236E-07 | 1.234E-07 | 1.234E-07 | 1.236E-07 | 1.234E-07 | 1.234E-07 |
| D | 0.2 | 0.02 | 7300. | 0. | 0. | 453.5 | 111.1 | 453.5 | 2.833E-05 | 2.810E-05 | 2.810E-05 | 2.833E-05 | 2.810E-05 | 2.810E-05 |
| D | 1.6 | 8.11 | 7300. | 0. | 0. | 453.5 | 111.1 | 453.5 | 4.047E-06 | 4.014E-06 | 4.014E-06 | 4.047E-06 | 4.014E-06 | 4.014E-06 |
| D | 3.3 | 12.97 | 7300. | 0. | 0. | 453.5 | 111.1 | 453.5 | 1.889E-06 | 1.873E-06 | 1.873E-06 | 1.889E-06 | 1.873E-06 | 1.873E-06 |
| D | 5.6 | 8.31 | 7300. | 0. | 0. | 453.5 | 111.1 | 453.5 | 1.133E-06 | 1.124E-06 | 1.124E-06 | 1.133E-06 | 1.124E-06 | 1.124E-06 |
| D | 8.2 | 1.17 | 7300. | 0. | 0. | 453.5 | 111.1 | 453.5 | 7.657E-07 | 7.595E-07 | 7.595E-07 | 7.657E-07 | 7.595E-07 | 7.595E-07 |
| D | 10.7 | 0.01 | 7300. | 0. | 0. | 453.5 | 111.1 | 453.5 | 5.902E-07 | 5.854E-07 | 5.854E-07 | 5.902E-07 | 5.854E-07 | 5.854E-07 |
| D | 24.5 | 0.01 | 7300. | 0. | 0. | 453.5 | 111.1 | 453.5 | 2.575E-07 | 2.555E-07 | 2.555E-07 | 2.575E-07 | 2.555E-07 | 2.555E-07 |
| E | 0.2 | 0.13 | 7300. | 0. | 0. | 322.5 | 67.5 | 322.5 | 6.578E-05 | 6.456E-05 | 6.456E-05 | 6.578E-05 | 6.456E-05 | 6.456E-05 |
| E | 1.6 | 17.70 | 7300. | 0. | 0. | 322.5 | 67.5 | 322.5 | 9.397E-06 | 9.223E-06 | 9.223E-06 | 9.397E-06 | 9.223E-06 | 9.223E-06 |
| E | 3.3 | 17.17 | 7300. | 0. | 0. | 322.5 | 67.5 | 322.5 | 4.385E-06 | 4.304E-06 | 4.304E-06 | 4.385E-06 | 4.304E-06 | 4.304E-06 |
| E | 5.6 | 3.18 | 7300. | 0. | 0. | 322.5 | 67.5 | 322.5 | 2.631E-06 | 2.582E-06 | 2.582E-06 | 2.631E-06 | 2.582E-06 | 2.582E-06 |
| E | 8.2 | 0.17 | 7300. | 0. | 0. | 322.5 | 67.5 | 322.5 | 1.778E-06 | 1.745E-06 | 1.745E-06 | 1.778E-06 | 1.745E-06 | 1.745E-06 |
| E | 10.7 | 0.00 | 7300. | 0. | 0. | 322.5 | 67.5 | 322.5 | 1.370E-06 | 1.345E-06 | 1.345E-06 | 1.370E-06 | 1.345E-06 | 1.345E-06 |
| E | 24.5 | 0.02 | 7300. | 0. | 0. | 322.5 | 67.5 | 322.5 | 5.980E-07 | 5.869E-07 | 5.869E-07 | 5.980E-07 | 5.869E-07 | 5.869E-07 |
| F | 0.2 | 0.06 | 7300. | 0. | 0. | 222.6 | 40.9 | 222.6 | 1.572E-04 | 1.504E-04 | 1.504E-04 | 1.572E-04 | 1.504E-04 | 1.504E-04 |
| F | 1.6 | 8.14 | 7300. | 0. | 0. | 222.6 | 40.9 | 222.6 | 2.245E-05 | 2.148E-05 | 2.148E-05 | 2.245E-05 | 2.148E-05 | 2.148E-05 |
| F | 3.3 | 2.33 | 7300. | 0. | 0. | 222.6 | 40.9 | 222.6 | 1.048E-05 | 1.002E-05 | 1.002E-05 | 1.048E-05 | 1.002E-05 | 1.002E-05 |
| F | 5.6 | 0.02 | 7300. | 0. | 0. | 222.6 | 40.9 | 222.6 | 6.287E-06 | 6.015E-06 | 6.015E-06 | 6.287E-06 | 6.015E-06 | 6.015E-06 |

| | | | | | | | | | | | |
|---|-----|------|-------|----|----|-------|------|-------|-----------|-----------|-----------|
| G | 0.2 | 0.04 | 7300. | 0. | 0. | 153.6 | 24.8 | 153.6 | 3.755E-04 | 3.389E-04 | 3.389E-04 |
| G | 1.6 | 4.43 | 7300. | 0. | 0. | 153.6 | 24.8 | 153.6 | 5.364E-05 | 4.842E-05 | 4.842E-05 |
| G | 3.3 | 1.01 | 7300. | 0. | 0. | 153.6 | 24.8 | 153.6 | 2.503E-05 | 2.260E-05 | 2.260E-05 |
| G | 5.6 | 0.00 | 7300. | 0. | 0. | 153.6 | 24.8 | 153.6 | 1.502E-05 | 1.356E-05 | 1.356E-05 |

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1404 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

DATA PERIOD:

TYPE OF RELEASE: Ground Release

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

METEOROLOGICAL INSTRUMENTATION

WIND SENSORS HEIGHT: 10.1 meters

DELTA-T HEIGHTS: 10.1-45.7 meters

LOW POPULATION ZONE CALCULATIONS:

DIRECTION-INDEPENDENT (S.R.P 2.3.4) MODEL.

MINIMUM BOUNDARY DISTANCE = 7300.0 METERS.

BUILDING WAKE CREDIT ALLOWED: C= 0.5 A= 2584. D= 54.3

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

| | | | | | | | | | |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 3.389E-04 | 1.504E-04 | 6.456E-05 | 4.842E-05 | 2.810E-05 | 2.260E-05 | 2.148E-05 | 1.356E-05 | 1.002E-05 | 9.223E-06 |
| 0.035 | 0.096 | 0.222 | 4.652 | 4.671 | 5.681 | 13.817 | 13.821 | 16.148 | 33.845 |
| 0.03507 | 0.09585 | 0.22210 | 4.65236 | 4.67106 | 5.68102 | 13.81680 | 13.82148 | 16.14766 | 33.84533 |
| 6.015E-06 | 4.304E-06 | 4.014E-06 | 2.582E-06 | 1.873E-06 | 1.745E-06 | 1.345E-06 | 1.124E-06 | 8.459E-07 | 7.595E-07 |
| 33.864 | 51.038 | 59.146 | 62.328 | 75.293 | 75.464 | 75.469 | 83.775 | 84.477 | 85.650 |
| 33.86403 | 51.03801 | 59.14574 | 62.32758 | 75.29340 | 75.46407 | 75.46874 | 83.77519 | 84.47655 | 85.65016 |
| 5.869E-07 | 5.854E-07 | 3.947E-07 | 2.555E-07 | 2.498E-07 | 2.368E-07 | 2.039E-07 | 1.600E-07 | 1.234E-07 | 1.166E-07 |
| 85.667 | 85.674 | 87.004 | 87.015 | 88.156 | 89.288 | 91.359 | 91.509 | 91.511 | 93.830 |
| 85.66653 | 85.67354 | 87.00378 | 87.01547 | 88.15635 | 89.28788 | 91.35922 | 91.50884 | 91.51118 | 93.83035 |
| 9.514E-08 | 6.995E-08 | 5.708E-08 | 4.727E-08 | 3.857E-08 | 3.643E-08 | 1.590E-08 | 1.297E-08 | | |
| 96.916 | 98.581 | 99.698 | 99.892 | 99.986 | 99.988 | 99.991 | 100.000 | | |
| 96.91634 | 98.58090 | 99.69840 | 99.89245 | 99.98596 | 99.98830 | 99.99063 | 99.99998 | | |

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

| CHI/Q | WITH RESPECT TO | WHEN THE WIND BLOWS |
|-----------------|-----------------|-----------------------|
| SEC/CUBIC METER | THE TOTAL TIME | INTO THIS SECTOR ONLY |

| | | |
|-----------|--------|--------|
| 1.011E-04 | 1.000 | 1.000 |
| 6.089E-05 | 3.000 | 3.000 |
| 4.628E-05 | 5.000 | 5.000 |
| 2.882E-05 | 10.000 | 10.000 |
| 2.093E-05 | 15.000 | 15.000 |
| 1.624E-05 | 20.000 | 20.000 |
| 1.306E-05 | 25.000 | 25.000 |
| 1.074E-05 | 30.000 | 30.000 |

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE (2) = 4.649

| | | |
|-----------|--------|--------|
| 8.956E-06 | 35.000 | 35.000 |
| 7.541E-06 | 40.000 | 40.000 |
| 6.386E-06 | 45.000 | 45.000 |
| 5.424E-06 | 50.000 | 50.000 |
| 4.606E-06 | 55.000 | 55.000 |
| 3.868E-06 | 60.000 | 60.000 |
| 3.097E-06 | 65.000 | 65.000 |
| 2.450E-06 | 70.000 | 70.000 |
| 1.903E-06 | 75.000 | 75.000 |
| 1.434E-06 | 80.000 | 80.000 |
| 8.920E-07 | 85.000 | 85.000 |
| 2.948E-07 | 90.000 | 90.000 |
| 4.628E-05 | 5.0 | 5.00 |

K= 17 FIVEXQ(K) = 4.628E-05 FIVEPR(K) = 5.000

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

Page 1406 of 1411

RUN DATE: 01/28/03

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 10.1 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.1-45.7 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

LOW POPULATION ZONE CALCULATIONS:

FIVE PERCENT OVERALL SITE LIMIT

BUILDING WAKE CREDIT ALLOWED: C= 0.5 A= 2584. D= 54.3

CORRECTION FACTORS USED IN THE ANNUAL AVERAGE CALCULATIONS.

BELOW ARE PRINTED THE ORDERED VALUES OF CHI/Q AND THE FREQUENCY WITH WHICH THAT VALUE IS REACHED OR EXCEEDED.

THE TOP NUMBER IS THE CHI/Q. THE MIDDLE NUMBER IS THE FREQUENCY NORMALIZED TO THIS SECTOR.

THE THIRD NUMBER IS THE FREQUENCY WITH RESPECT TO ALL TIME.

| | | | | | | | | | |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 2.237E-04 | 1.117E-04 | 5.173E-05 | 3.195E-05 | 2.494E-05 | 2.056E-05 | 1.595E-05 | 1.356E-05 | 9.119E-06 | 7.390E-06 |
| 0.035 | 0.096 | 0.222 | 4.652 | 4.671 | 5.681 | 13.817 | 13.821 | 16.148 | 33.845 |
| 0.03507 | 0.09585 | 0.22210 | 4.65236 | 4.67106 | 5.68102 | 13.81680 | 13.82148 | 16.14766 | 33.84532 |
| | | | | | | | | | |
| 6.015E-06 | 3.956E-06 | 3.563E-06 | 2.582E-06 | 1.781E-06 | 1.745E-06 | 1.345E-06 | 1.124E-06 | 8.459E-07 | 7.595E-07 |
| 33.864 | 51.038 | 59.146 | 62.328 | 75.293 | 75.464 | 75.469 | 83.775 | 84.477 | 85.650 |
| 33.86403 | 51.03802 | 59.14575 | 62.32759 | 75.29342 | 75.46409 | 75.46876 | 83.77519 | 84.47657 | 85.65018 |
| | | | | | | | | | |
| 5.869E-07 | 5.854E-07 | 3.947E-07 | 2.555E-07 | 2.498E-07 | 2.368E-07 | 2.039E-07 | 1.600E-07 | 1.234E-07 | 1.166E-07 |
| 85.667 | 85.674 | 87.004 | 87.016 | 88.156 | 89.288 | 91.359 | 91.509 | 91.511 | 93.830 |
| 85.66654 | 85.67355 | 87.00379 | 87.01548 | 88.15636 | 89.28787 | 91.35921 | 91.50883 | 91.51116 | 93.83031 |
| | | | | | | | | | |
| 9.514E-08 | 6.995E-08 | 5.708E-08 | 4.727E-08 | 3.857E-08 | 3.643E-08 | 1.590E-08 | 1.297E-08 | | |
| 96.916 | 98.581 | 99.698 | 99.892 | 99.986 | 99.988 | 99.991 | 100.000 | | |
| 96.91631 | 98.58086 | 99.69836 | 99.89240 | 99.98589 | 99.98823 | 99.99056 | 99.99991 | | |

X/Q PERCENTILES

(BASED ON THE UPPER ENVELOPE OF THE ORDERED X/Q-FREQUENCY VALUES, AND AS PLOTTED ON A LOG-NORMAL GRAPH.)

PERCENT OF TIME CHI/Q IS EQUALED OR EXCEEDED

CHI/Q WITH RESPECT TO WHEN THE WIND BLOWS
SEC/CUBIC METER THE TOTAL TIME INTO THIS SECTOR ONLY

HANDCHECK GRAPH: SLOPE LT -1.0 FOR LOW PERCENTAGES. XSAVE(2)= 4.649

| | | | | |
|----|---|-------------|-------------|-------------|
| K | I | XQSAVE(K,I) | XQINT(K,I) | XQSLOP(K,I) |
| 18 | 1 | -8.40538 | -12.26369 | -1.13840 |
| 18 | 2 | -10.35129 | -12.27977 | -1.14797 |
| 18 | 3 | -12.54483 | -12.19166 | -1.52956 |
| 18 | 4 | -13.69861 | -9.25157 | -4.51377 |
| 18 | 5 | -15.40582 | -14.40481 | -0.73418 |
| 18 | 6 | -17.07083 | NUMXQ(K)= 6 | |

| | | |
|-----------|--------|--------|
| 6.673E-05 | 1.000 | 1.000 |
| 4.018E-05 | 3.000 | 3.000 |
| 3.070E-05 | 5.000 | 5.000 |
| 2.023E-05 | 10.000 | 10.000 |
| 1.526E-05 | 15.000 | 15.000 |
| 1.220E-05 | 20.000 | 20.000 |
| 1.007E-05 | 25.000 | 25.000 |
| 8.476E-06 | 30.000 | 30.000 |
| 7.225E-06 | 35.000 | 35.000 |
| 6.210E-06 | 40.000 | 40.000 |
| 5.364E-06 | 45.000 | 45.000 |
| 4.645E-06 | 50.000 | 50.000 |
| 4.022E-06 | 55.000 | 55.000 |
| 3.445E-06 | 60.000 | 60.000 |
| 2.816E-06 | 65.000 | 65.000 |
| 2.276E-06 | 70.000 | 70.000 |
| 1.809E-06 | 75.000 | 75.000 |
| 1.400E-06 | 80.000 | 80.000 |
| 8.920E-07 | 85.000 | 85.000 |
| 2.948E-07 | 90.000 | 90.000 |
| 3.070E-05 | 5.0 | 5.00 |

K= 18 FIVEXQ(K) = 3.070E-05 FIVEPR(K) = 5.000

| K | HIGHPR | PR | GRNDVT(K) |
|----|----------|---------|-----------|
| 1 | -3.35890 | 0.03913 | 7.16050 |
| 2 | -2.03897 | 2.07263 | 3.52922 |
| 3 | -3.42797 | 0.03041 | 3.23970 |
| 4 | -3.29192 | 0.04976 | 2.96101 |
| 5 | -3.12377 | 0.08928 | 3.59423 |
| 6 | -3.21792 | 0.06457 | 3.74028 |
| 7 | -3.35960 | 0.03904 | 4.91057 |
| 8 | -3.37633 | 0.03673 | 6.63198 |
| 9 | -3.37593 | 0.03679 | 8.27142 |
| 10 | -3.30341 | 0.04776 | 4.16751 |
| 11 | -2.93591 | 0.16629 | 4.48639 |
| 12 | -2.57624 | 0.49942 | 6.76889 |
| 13 | -2.62672 | 0.43107 | 8.24935 |
| 14 | -2.82508 | 0.23636 | 9.70638 |
| 15 | -3.03218 | 0.12140 | 11.39525 |
| 16 | -3.24267 | 0.05922 | 11.18732 |

| K | HOURS(K) | TOTHR |
|---|-----------|-----------|
| 1 | 3.42783 | 3.42783 |
| 2 | 181.56260 | 184.99040 |
| 3 | 2.66394 | 187.65440 |
| 4 | 4.35880 | 192.01320 |
| 5 | 7.82109 | 199.83420 |
| 6 | 5.65631 | 205.49060 |
| 7 | 3.41947 | 208.91000 |
| 8 | 3.21793 | 212.12800 |
| 9 | 3.22263 | 215.35060 |

Calculation No. PM-1055 Revision 0

Attachment J

Page 1408 of 1411

| | | |
|----|----------|-----------|
| 10 | 4.18388 | 219.53450 |
| 11 | 14.56709 | 234.10160 |
| 12 | 43.74879 | 277.85030 |
| 13 | 37.76197 | 315.61230 |
| 14 | 20.70481 | 336.31710 |
| 15 | 10.63488 | 346.95200 |
| 16 | 5.18743 | 352.13940 |

| K | FIVEXQ | SVANN | SLTIME | TIMINT | I | TIME | XQT |
|---|-----------|-----------|---------|----------|---|-------|-----------|
| 1 | 1.447E-05 | 1.504E-07 | -0.5446 | -10.7658 | 1 | 8.0 | -11.89830 |
| | | | | | 2 | 16.0 | -12.27580 |
| | | | | | 3 | 72.0 | -13.09494 |
| | | | | | 4 | 624.0 | -14.27103 |
| 2 | 1.261E-05 | 9.865E-08 | -0.5785 | -10.8803 | 1 | 8.0 | -12.08320 |
| | | | | | 2 | 16.0 | -12.48416 |
| | | | | | 3 | 72.0 | -13.35422 |
| | | | | | 4 | 624.0 | -14.60340 |
| 3 | 1.247E-05 | 1.001E-07 | -0.5754 | -10.8936 | 1 | 8.0 | -12.09012 |
| | | | | | 2 | 16.0 | -12.48897 |
| | | | | | 3 | 72.0 | -13.35445 |
| | | | | | 4 | 624.0 | -14.59706 |
| 4 | 1.374E-05 | 9.602E-08 | -0.5919 | -10.7851 | 1 | 8.0 | -12.01594 |
| | | | | | 2 | 16.0 | -12.42624 |
| | | | | | 3 | 72.0 | -13.31655 |
| | | | | | 4 | 624.0 | -14.59482 |
| 5 | 1.898E-05 | 1.347E-07 | -0.5901 | -10.4630 | 1 | 8.0 | -11.69008 |
| | | | | | 2 | 16.0 | -12.09911 |
| | | | | | 3 | 72.0 | -12.98666 |
| | | | | | 4 | 624.0 | -14.26096 |
| 6 | 1.868E-05 | 1.269E-07 | -0.5953 | -10.4756 | 1 | 8.0 | -11.71356 |
| | | | | | 2 | 16.0 | -12.12622 |
| | | | | | 3 | 72.0 | -13.02166 |
| | | | | | 4 | 624.0 | -14.30729 |
| 7 | 1.478E-05 | 1.274E-07 | -0.5669 | -10.7292 | 1 | 8.0 | -11.90813 |
| | | | | | 2 | 16.0 | -12.30111 |
| | | | | | 3 | 72.0 | -13.15384 |
| | | | | | 4 | 624.0 | -14.37814 |
| 8 | 1.475E-05 | 1.488E-07 | -0.5482 | -10.7441 | 1 | 8.0 | -11.88408 |
| | | | | | 2 | 16.0 | -12.26408 |
| | | | | | 3 | 72.0 | -13.08865 |
| | | | | | 4 | 624.0 | -14.27254 |
| 9 | 1.534E-05 | 1.620E-07 | -0.5427 | -10.7089 | 1 | 8.0 | -11.83749 |
| | | | | | 2 | 16.0 | -12.21368 |
| | | | | | 3 | 72.0 | -13.02999 |

| | | | | | | | |
|----|-----------|-----------|---------|----------|---|-------|-----------|
| 10 | 1.692E-05 | 1.143E-07 | -0.5960 | -10.5738 | 4 | 624.0 | -14.20200 |
| | | | | | 1 | 8.0 | -11.81323 |
| | | | | | 2 | 16.0 | -12.22637 |
| | | | | | 3 | 72.0 | -13.12287 |
| | | | | | 4 | 624.0 | -14.41002 |
| 11 | 2.808E-05 | 1.588E-07 | -0.6172 | -10.0526 | 1 | 8.0 | -11.33605 |
| | | | | | 2 | 16.0 | -11.76385 |
| | | | | | 3 | 72.0 | -12.69214 |
| | | | | | 4 | 624.0 | -14.02494 |
| | | | | | 1 | 8.0 | -10.78191 |
| 12 | 4.809E-05 | 3.000E-07 | -0.6055 | -9.5228 | 2 | 16.0 | -11.20160 |
| | | | | | 3 | 72.0 | -12.11229 |
| | | | | | 4 | 624.0 | -13.41982 |
| | | | | | 1 | 8.0 | -10.83913 |
| | | | | | 2 | 16.0 | -11.25377 |
| 13 | 4.495E-05 | 2.981E-07 | -0.5982 | -9.5952 | 3 | 72.0 | -12.15351 |
| | | | | | 4 | 624.0 | -13.44532 |
| | | | | | 1 | 8.0 | -11.09693 |
| | | | | | 2 | 16.0 | -11.50031 |
| | | | | | 3 | 72.0 | -12.37562 |
| 14 | 3.397E-05 | 2.581E-07 | -0.5820 | -9.8868 | 4 | 624.0 | -13.63235 |
| | | | | | 1 | 8.0 | -11.38191 |
| | | | | | 2 | 16.0 | -11.76355 |
| | | | | | 3 | 72.0 | -12.59168 |
| | | | | | 4 | 624.0 | -13.78066 |
| 15 | 2.446E-05 | 2.418E-07 | -0.5506 | -10.2370 | 1 | 8.0 | -11.76022 |
| | | | | | 2 | 16.0 | -12.13604 |
| | | | | | 3 | 72.0 | -12.95154 |
| | | | | | 4 | 624.0 | -14.12241 |
| | | | | | 1 | 8.0 | -10.81389 |
| 16 | 1.656E-05 | 1.756E-07 | -0.5422 | -10.6327 | 2 | 16.0 | -11.23041 |
| | | | | | 3 | 72.0 | -12.13423 |
| | | | | | 4 | 624.0 | -13.43189 |
| | | | | | 1 | 8.0 | -11.15633 |
| | | | | | 2 | 16.0 | -11.53894 |
| 17 | 4.628E-05 | 3.000E-07 | -0.6009 | -9.5643 | 3 | 72.0 | -12.36916 |
| | | | | | 4 | 624.0 | -13.56116 |
| | | | | | 1 | 8.0 | -10.81389 |
| | | | | | 2 | 16.0 | -11.23041 |
| | | | | | 3 | 72.0 | -12.13423 |
| 18 | 3.070E-05 | 3.000E-07 | -0.5520 | -10.0085 | 4 | 624.0 | -13.43189 |
| | | | | | 1 | 8.0 | -11.15633 |
| | | | | | 2 | 16.0 | -11.53894 |
| | | | | | 3 | 72.0 | -12.36916 |
| | | | | | 4 | 624.0 | -13.56116 |

Calculation No. PM-1055 Revision 0

USNRC COMPUTER CODE-PAVAN, VERSION 2.0

Attachment J

RUN DATE: 01/28/03

Page 1410 of 1411

PLANT NAME: Peach Bottom

METEOROLOGICAL INSTRUMENTATION

DATA PERIOD:

WIND SENSORS HEIGHT: 10.1 meters

TYPE OF RELEASE: Ground Release

DELTA-T HEIGHTS: 10.1-45.7 meters

SOURCE OF DATA:

COMMENTS: Peach Bottom, Tower 2 1984-1988 met data, 33 ft wind, 33-150 ft Delta T

PROGRAM: PAVAN, 10/76, 8/79 REVISION, IMPLEMENTATION OF REGULATORY GUIDE 1.145

 RELATIVE CONCENTRATION (X/Q) VALUES (SEC/CUBIC METER)
 VERSUS
 AVERAGING TIME

| DOWNWIND DISTANCE | | | | | | | HOURS PER YEAR MAX | | DOWNWIND | |
|-------------------|----------|-----------|-----------|------------|----------|-----------|--------------------|----------------------------------|----------|--|
| SECTOR | (METERS) | 0-2 HOURS | 0-8 HOURS | 8-24 HOURS | 1-4 DAYS | 4-30 DAYS | ANNUAL AVERAGE | 0-2 HR X/Q IS EXCEEDED IN SECTOR | SECTOR | |
| S | 7300. | 1.45E-05 | 6.80E-06 | 4.66E-06 | 2.06E-06 | 6.34E-07 | 1.50E-07 | 3.4 | S | |
| SSW | 7300. | 1.26E-05 | 5.65E-06 | 3.79E-06 | 1.59E-06 | 4.55E-07 | 9.86E-08 | 181.6 | SSW | |
| SW | 7300. | 1.25E-05 | 5.61E-06 | 3.77E-06 | 1.59E-06 | 4.58E-07 | 1.00E-07 | 2.7 | SW | |
| WSW | 7300. | 1.37E-05 | 6.05E-06 | 4.01E-06 | 1.65E-06 | 4.59E-07 | 9.60E-08 | 4.4 | WSW | |
| W | 7300. | 1.90E-05 | 8.38E-06 | 5.56E-06 | 2.29E-06 | 6.41E-07 | 1.35E-07 | 7.8 | W | |
| WNW | 7300. | 1.87E-05 | 8.18E-06 | 5.42E-06 | 2.21E-06 | 6.12E-07 | 1.27E-07 | 5.7 | WNW | |
| NW | 7300. | 1.48E-05 | 6.74E-06 | 4.55E-06 | 1.94E-06 | 5.70E-07 | 1.27E-07 | 3.4 | NW | |
| NNW | 7300. | 1.48E-05 | 6.90E-06 | 4.72E-06 | 2.07E-06 | 6.33E-07 | 1.49E-07 | 3.2 | NNW | |
| N | 7300. | 1.53E-05 | 7.23E-06 | 4.96E-06 | 2.19E-06 | 6.79E-07 | 1.62E-07 | 3.2 | N | |
| NNE | 7300. | 1.69E-05 | 7.41E-06 | 4.90E-06 | 2.00E-06 | 5.52E-07 | 1.14E-07 | 4.2 | NNE | |
| NE | 7300. | 2.81E-05 | 1.19E-05 | 7.78E-06 | 3.08E-06 | 8.11E-07 | 1.59E-07 | 14.6 | NE | |
| ENE | 7300. | 4.81E-05 | 2.08E-05 | 1.37E-05 | 5.49E-06 | 1.49E-06 | 3.00E-07 | 43.7 | ENE | |
| E | 7300. | 4.50E-05 | 1.96E-05 | 1.30E-05 | 5.27E-06 | 1.45E-06 | 2.98E-07 | 37.8 | E | |
| ESE | 7300. | 3.40E-05 | 1.52E-05 | 1.01E-05 | 4.22E-06 | 1.20E-06 | 2.58E-07 | 20.7 | ESE | |
| SE | 7300. | 2.45E-05 | 1.14E-05 | 7.78E-06 | 3.40E-06 | 1.04E-06 | 2.42E-07 | 10.6 | SE | |
| SSE | 7300. | 1.66E-05 | 7.81E-06 | 5.36E-06 | 2.37E-06 | 7.36E-07 | 1.76E-07 | 5.2 | SSE | |
| MAX X/Q | | 4.81E-05 | | | | | | TOTAL HOURS AROUND SITE: 352.1 | | |
| SRP 2.3.4 | 7300. | 4.63E-05 | 2.01E-05 | 1.33E-05 | 5.37E-06 | 1.47E-06 | 3.00E-07 | | | |
| SITE LIMIT | | 3.07E-05 | 1.43E-05 | 9.74E-06 | 4.25E-06 | 1.29E-06 | 3.00E-07 | | | |

0.5 PERCENT X/Q TO AN INDIVIDUAL IS LIMITING.

****NOTE**:** VALUES ON THIS PAGE ARE APPROXIMATIONS ONLY.
 CHECK THE REASONABLENESS OF THE ENVELOPES
 COMPUTED FOR THE 0-2 HOUR VALUES. FOR ANY
 FAULTY ENVELOPES, ADJUST THE ABOVE VALUES.

PRINTOUT OF INPUT CARDS

[illegible]

Computer Disclosure SheetDiscipline Nuclear

Client: Exelon Corporation/ Amergen
Project: Peach Bottom Atomic Power Station

Date: March 20, 2003
Job No. 26427-NCS0005.CALC

Program(s) used
ARCON96

Rev No.
1

Rev. Date
5/1997

Calculation No: PM-1055, Rev. 0

Status ☐ Prelim☒ Final☐ Void

WGI Prequalification ☒ Yes
☐ No

Run No. 1

Description: ARCON96 X/Q analysis consistent with procedures in Draft Regulatory Guide 1111
for Control Room habitability assessments.

Analysis Description: ARCON96 calculations of X/Q are performed for stack and vent releases to the Control Room Intake. Centerline X/Q values, sector X/Q values and 95% max X/Q values are computed for 0-2 hours, 2-8 hours and 8-24 hours, 1-4 day, and 4-30 days.

The attached computer output has been reviewed, the input data checked,
And the results approved for release. Input criteria for this analysis were established.

By:

On:

Run by: T. Thomas

Checked by: J. Robinson

Approved by: J. Robinson

Remarks: WGI Form for Computer Software Control

Computer Disclosure Sheet

Discipline Nuclear

Client: Exelon Corporation/ Amergen
Project: Peach Bottom Atomic Power Station

Date: March 20, 2003
Job No: 26427-NCS0005.CALC

Program(s) used
PAVAN

Rev No.
2

Rev Date
12/1997

Calculation No: PM-1055, Rev. 0
Status ☐ Prelim.
☒ Final
☐ Void

WGI Prequalification ☒ Yes
☐ No

Run No. 1

Description: PAVAN X/Q analysis of Regulatory Guide 1.145 accidental release.

Analysis Description: PAVAN calculations of X/Q are performed for the EAB and outer LPZ distances. PAVAN calculations are also performed for the Control Room Intake for incorporation into the ARCON96 analysis per NRC DG-1111. Maximum 0-2 hour, 0-8 hour, and 8-24 hour, 1-4 day and 4-30 day X/Q values are computed for each direction sector; and the 5th percentile overall site X/Q is also calculated. The higher value is selected.

The attached computer output has been reviewed, the input data checked,
And the results approved for release. Input criteria for this analysis were established.

By:

On:

Run by: T.Thomas

Checked by: J. Robinson

Approved by: J. Robinson

Thomas 3/20/03
J. Robinson 03-20-03
J. Robinson 03-20-03

Remarks: