



Tennessee Valley Authority, Post Office Box 2000, Decatur, Alabama 35609-2000

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10 CFR 50.36a(a) (2)  
10 CFR 50, Appendix I,  
Section IV.B.1

U.S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Mail Stop: OWFN, P1-35  
Washington, D.C. 20555-0001

Gentlemen:

In the Matter of	)	Docket Nos. 50-259
Tennessee Valley Authority	)	50-260
		50-296

**BROWNS FERRY NUCLEAR PLANT (BFN) - UNITS 1, 2, AND 3 -  
UPDATE TO THE 2002 ANNUAL RADIOACTIVE EFFLUENT RELEASE  
(ARER) REPORT**

This letter provides an updated 2002 annual radioactive effluent release (ARER) report including two corrected pages in Enclosure 1. The original ARER was submitted to the NRC on April 30, 2003. This updated 2002 ARER covers the period from January 1, 2002, through December 31, 2002, and supersedes the previous ARER.

During a follow-up review of the 2002 ARER, it was identified that five values on four tables were erroneous. TVA, therefore, submits the following:

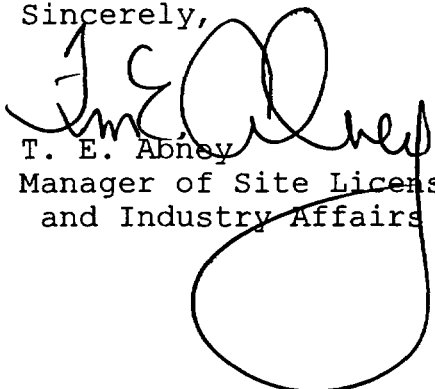
- (1) In Table 4, on page E1-11, the percent value for Organ Doses to a Child/Thyroid was documented as less than 1 percent when, in fact, a calculation of the data for that value shows that it should have been 8.7 percent.

IE48

- (2) In Table 9, on page E1-16, the Thyroid Dose (mrem) second quarter value for thyroid dose (airborne) should have been  $2.4E-01$  instead of  $3.4E-01$ . By inclusion of the erroneous data, the total dose for the second quarter was also affected. This error was typographical in nature. It should be noted that the cumulative total dose for the thyroid was accurately documented.
- (3) On page E3-8, in item C.1 (Particulates), the first quarter value for Particulates with Half-Lives > 8 Days was submitted as  $1.15E-03$ ; however, it should have been  $1.12E-03$ . Consequently, this also affected item C.2 described below (4).
- (4) On page E3-8, in item C.2 (Particulates), the first quarter value for Average Release Rate for Period was submitted as  $1.48E-04$ ; however, it should have been  $1.44E-04$ .
- (5) On page E3-10, in Item 3 (Particulates), the third quarter value for Au-199 should have been documented as  $4.07E-06$  instead of ND.

A review of the 2002 ARER evaluated the extent of condition. The review did not identify any additional erroneous values. If you have any questions concerning this updated ARER report, please contact me at (256) 729-2636.

Sincerely,



T. E. Abney  
Manager of Site Licensing  
and Industry Affairs

**ENCLOSURE 1**

**TENNESSEE VALLEY AUTHORITY  
BROWNS FERRY NUCLEAR PLANT (BFN)  
UNITS 1, 2, AND 3**

**RADIOLOGICAL IMPACT ASSESSMENT REPORT  
JANUARY THROUGH DECEMBER 2002**

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Browns Ferry Nuclear Plant  
January - December 2002**

## **I. INTRODUCTION**

Potential doses to the "maximum exposed individual" and the population around Browns Ferry are calculated for each quarter as required in Section 5.2 of the Offsite Dose Calculation Manual (ODCM). The methodology for determining plant releases for the reporting period used to estimate dose is specified in Sections 6 and 7 of the ODCM. Dispersion of radioactive effluents in the environment is estimated using meteorological data and river flow measured during the period. In this report, the doses resulting from releases are described and compared to limits established for Browns Ferry.

## **II. DOSE LIMITS**

The ODCM specifies limits for the release of radioactive effluents, as well as limits for doses to the general public from the release of radioactive effluents. These limits are set well below the Technical Specification limits which govern the concentrations of radioactivity and doses permissible in unrestricted areas. This ensures that radioactive effluent releases are As Low As Reasonably Achievable.

The air dose limits in areas at and beyond the Site Boundary due to noble gases released in gaseous effluents per unit are:

$$\begin{aligned} &\leq 5 \text{ mrad per quarter and} \\ &\leq 10 \text{ mrad per year for gamma radiation.} \\ &\quad - \text{ and } - \\ &\leq 10 \text{ mrad per quarter and} \\ &\leq 20 \text{ mrad per year for beta radiation.} \end{aligned}$$

The dose limits to a Member of the Public in an unrestricted area from radioiodines, radioactive materials in particulate form, and radionuclides other than noble gases with half-lives > 8 days released in gaseous effluents for each unit are:

$$\begin{aligned} &\leq 7.5 \text{ mrem per quarter and} \\ &\leq 15 \text{ mrem per year to any organ.} \end{aligned}$$

The dose or dose commitment to a Member of the Public from radioactive material in liquid effluents released to unrestricted areas are:

$$\begin{aligned} &\leq 1.5 \text{ mrem per quarter and} \\ &\leq 3 \text{ mrem per year to the total body,} \\ &\quad - \text{ and } - \\ &\leq 5 \text{ mrem per quarter and} \\ &\leq 10 \text{ mrem per year to any organ.} \end{aligned}$$

The limit for the total effective dose equivalent to an individual Member of the Public inside the site boundary is:

$$100 \text{ mrem per year.}$$

The EPA limits for total dose to any Member of the Public in the vicinity of a nuclear power plant, established in the Environmental Dose Standard of 40 CFR 190, are:

$$\begin{aligned} &\leq 25 \text{ mrem per year to the whole body,} \\ &\leq 75 \text{ mrem per year to the thyroid,} \\ &\quad - \text{ and } - \\ &\leq 25 \text{ mrem per year to any other organ.} \end{aligned}$$

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### **III. DOSE CALCULATIONS**

Estimated doses to Members of the Public are determined using computer models (the Gaseous Effluent Licensing Code, GELC, and the Quarterly Water Dose Assessment Code, QWATA). These models are based on guidance provided by the NRC (in Regulatory Guides 1.109, 1.111 and 1.113) for determining the potential dose to individuals and populations living in the vicinity of the plant. The area around the plant is analyzed to determine the pathways through which the public may receive a dose. The doses calculated are a representation of the dose to a "maximum exposed individual." Some of the factors used in these calculations (such as ingestion rates) are maximum values to ensure conservative reporting data. Many of these factors are obtained from NUREG/CR-1004. The values chosen will tend to overestimate the dose. The expected dose to actual individuals is lower. The calculated doses are presented in Tables 1, 2, 3, 4, 5, 6, 7, 8, and 9.

### **IV. DOSES FROM AIRBORNE EFFLUENTS**

For airborne effluents, Members of the Public can be exposed to radiation from several sources: direct radiation from the radioactivity in the air, direct radiation from radioactivity deposited on the ground, inhalation of airborne radioactivity, ingestion of vegetation which contains radioactivity deposited from the atmosphere, and ingestion of milk and beef which contains radioactivity deposited from the atmosphere onto vegetation and subsequently consumed by milk and beef animals.

#### **Airborne Release Points**

There are four monitored release points from Browns Ferry Nuclear Plant: the turbine building, the radwaste building, the reactor building, and the stack.

Releases from the turbine building are considered ground-level releases. The ground-level Joint Frequency Distribution (JFD) is derived from windspeeds and directions measured 10 meters above ground and from the vertical temperature difference between 10 and 45 meters, and are presented for each quarter in Tables 10, 11, 12, and 13.

Releases from the radwaste and reactor buildings are considered split-level releases. Portions of the release are treated as ground-level while other portions are considered elevated depending on the ratio of the vertical exit velocity to the horizontal wind speed. The split-level dispersion approach is implemented using a model that requires two complete quarterly JFDs for each effluent vent, one for the ground-level releases and one for the elevated releases. The ground-level portion of the split-level JFD is based on wind speeds and directions measured 10 meters above ground-level and from the vertical temperature difference between 10 and 45 meters. The elevated portion of the split-level JFD is based on wind speeds and direction measurements at the 45 meter level and the vertical temperature difference between 45 and 91 meters. Both of these JFDs are given for each quarter in Tables 14, 15, 16, 17, 18, 19, 20, and 21.

Releases from the stack are considered to be elevated releases. The JFDs for elevated releases are based on wind directions and wind speeds measured at 91 meters and the vertical temperature difference between 45 and 91 meters, and are given for each quarter in Tables 22, 23, 24, and 25.

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**Meteorological Data**

Meteorological variables at BFN are measured continuously. Measurements collected include wind speed, wind direction, and temperature at heights of 10, 45, and 91 meters above the ground. Quarterly JFDs are calculated for each release point using the appropriate levels of meteorological data. A quarterly JFD gives the percentage of the time that the wind is blowing out of a particular upwind compass sector in a particular range of wind speeds for a given stability class A through G. The wind speeds are divided into nine wind speed ranges. Calms are distributed by direction in proportion to the distribution of noncalm wind directions less than 1.6 m/s (3.5 mph). Stability classes are determined from the vertical temperature difference between two measurement levels.

The generally open terrain around BFN does not cause any significant effects on the transport and dispersion of gaseous effluents from the plant. Within 30 kilometers of BFN, the terrain is mostly gently rolling hills (30-60 meters). Between 30 and 80 kilometers the hills become larger to the north and south, and mountainous to the east and northeast. The Tennessee River/Wheeler Lake may have a minor effect on transport and dispersion in the immediate vicinity of BFN during periods of winds with a southerly component, overcast skies, and relatively high wind speeds. Also, the lower layer (10-45 meters) stability class tends to be more stable. However, during this infrequent condition, dose estimates will be conservative.

**External Exposure Dose**

Dose calculated for maximum external air dose (gamma-air and beta-air ) are made for points at and beyond the unrestricted area boundary as described in the BFN ODCM. The highest of these doses is then selected.

**Submersion Dose**

External doses to the skin and total body, due to submersion in a cloud of noble gases, are calculated for the nearest residence in each sector. The residence with the highest dose is then selected from all sectors.

**Organ Dose**

Dose to an organ due to releases of airborne effluents are estimated for the inhalation, ground contamination, and ingestion pathways. The ingestion pathway is further divided into three possible contributing pathways: ingestion of cow/goat milk, ingestion of beef, and ingestion of vegetables. Doses from applicable pathways are calculated for each receptor location identified in the most recent land use survey. To determine the maximum organ dose, the doses from the pathways are summed for each receptor. For the ingestion dose, however, only those pathways that exist for each receptor are considered in the sum, i.e., milk ingestion doses are included only for locations where milk was consumed without commercial preparation and vegetable ingestion is included only for those locations where a garden was identified. To conservatively account for beef ingestion, a beef ingestion dose equal to that for the highest unrestricted area boundary location is added to each identified receptor. For ground contamination, the dose added to the organ dose being calculated is the total body dose calculated for that location, i.e., it is assumed that the dose to an individual organ is equal to the total body dose.

The maximum organ dose, thyroid dose, and total body dose from airborne effluents are presented in Tables 1, 2, 3, and 4.



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**V. DOSES FROM LIQUID EFFLUENTS**

For liquid effluents, the public can be exposed to radiation from three sources: the ingestion of water from the Tennessee River, the ingestion of fish caught in the Tennessee River, and direct exposure from radioactive material deposited on the river shoreline sediment (recreation).

The concentration of radionuclides in the Tennessee River are calculated by a computer model which uses measured hydraulic data downstream of BFN. Parameters used to determine the doses are based on guidance given by the NRC (in Regulatory Guides 1.109) for maximum ingestion rates, exposure times, etc. Wherever possible, parameters used in the dose calculation are site specific. The models that are used to estimate doses, as well as the parameters input to the models, are described in detail in the BFN ODCM.

**Liquid Release Points and River Data**

Radionuclide concentrations in the Tennessee River are calculated assuming that releases in liquid effluents are continuous. When necessary, liquid releases from BFN, located at Tennessee River Mile 294, are made through diffusers which extend into the Tennessee River. It is assumed that releases to the river through these diffusers will initially be entrained in one-fifth of the water which flows past the plant. The QWATA code makes the assumption that this mixing condition holds true until the water is completely mixed at the first downstream dam (Wheeler Dam), at Tennessee River Mile 283.0.

Doses are calculated for locations within a 50 mile radius downstream of the plant site. The maximum potential recreation dose is calculated for a location immediately downstream from the plant's release point. The maximum exposed individual dose from ingestion of fish is assumed to be that calculated for the consumption of fish caught anywhere between the plant and the first downstream dam. The maximum exposed individual dose from drinking water is assumed to be that calculated at the nearest downstream public water supply [West Morgan - East Lawrence (WMEL)]. This could be interpreted as indicating that the maximum exposed individual, as assumed for liquid releases from Browns Ferry, is an individual who obtains all of his drinking water at WMEL, consumes fish caught from the Tennessee River between BFN and Wheeler Dam, and spends 500 hours per year on the shoreline just downstream of the plant's release point. Doses calculated for the maximum exposed individual due to liquid effluents for each quarter in the period are presented in Tables 5, 6, 7, and 8, along with the average river flows past the plant site for the periods.

**VI. POPULATION DOSES**

Population doses due to airborne effluents are calculated for an estimated 627,000 persons living within a 50-mile radius of the plant site. Doses from external pathways and inhalation are based on the 50-mile human population distribution. Ingestion population doses are calculated assuming that each individual consumed milk, vegetables, and meat produced within the sector in which the individual resides.

Population doses due to liquid effluents are calculated for the entire downstream Tennessee River population. Water ingestion population doses are calculated using actual population figures for downstream public water supplies. Fish ingestion population doses are calculated assuming that all sport fish caught in the Tennessee River are consumed by the Tennessee River population. Recreation population doses are calculated using historical recreational data on the number of shoreline visits at downstream locations.

Population doses calculated for airborne and liquid effluents are presented in Tables 1, 2, 3, 4, 5, 6, 7, and 8.

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**VII. OFFSITE DIRECT RADIATION DOSE**

External gamma radiation levels were measured by thermoluminescent dosimeters (TLDs) deployed around BFN as part of the offsite Radiological Environmental Monitoring Program (REMP). The quarterly gamma radiation levels determined from these TLDs during this reporting period averaged approximately 16.0 mrem/quarter at onsite (at or near the site boundary) stations and approximately 14.3 mrem/quarter at offsite stations or approximately 1.7 mrem/quarter higher onsite than at offsite stations. This difference is consistent with levels measured for pre-operation and construction phases of TVA nuclear plants where the average radiation levels onsite were generally 2-6 mrem/quarter higher than the levels offsite. This may be attributable to natural variations in environmental radiation levels, earth moving activities onsite, the mass of concrete employed in the construction of the plants, or other undetermined influences. Fluctuations in natural background dose rates and in TLD readings tend to mask any small increments which may be due to plant operations. Thus, there was no identifiable increase in dose rate levels attributable to direct radiation from plant equipment and/or gaseous effluents.

**VIII. DOSE TO A MEMBER OF THE PUBLIC INSIDE THE SITE BOUNDARY**

Pursuant to ODCM section 7.7.5, a review was performed to determine the highest dose to a member of the public in the site boundary. This review assumed that onsite TVA employees engaged in work activities not associated with nuclear power electric generation were considered as members of the public. The dose to a member of the public consists of the sum of dose commitments from effluent releases as well as any direct radiation dose. The effluent dose commitment is negligible compared to the direct radiation dose.

The direct radiation dose was determined from area TLDs located onsite. It consisted of gamma dose from the plume, ground contamination and from equipment sources (i.e., tanks, turbine shine, radioactive material storage areas, etc.). The highest direct radiation dose accounting for background and occupancy was 5.0 mrem during 2002.

The total annual dose commitment to the member of the public for 2002 is 5.0 mrem; the direct radiation dose while in the site boundary. It can be concluded that the dose limit for a member of the public inside the site boundary as specified in 10 CFR 20.1301 was not exceeded.

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**IX. TOTAL DOSE**

To determine compliance with 40 CFR 190, annual total dose contributions to the maximum exposed individual from BFN radioactive effluents and all other nearby uranium fuel cycle sources are considered.

The annual dose to any organ other than thyroid for the maximum exposed individual is conservatively calculated by summing the following doses: the total body air submersion dose for each quarter, the critical organ dose (for any organ other than the thyroid) from airborne effluents for each quarter from ground contamination, inhalation and ingestion, the total body dose from liquid effluents for each quarter, the maximum organ dose (for any organ other than the thyroid) from liquid effluents for each quarter, and any identifiable increase in direct radiation dose levels as measured by the REMP. This dose is compared to the 40 CFR 190 limit for total body or any organ dose (other than thyroid) to determine compliance.

The annual thyroid dose to the maximum exposed individual is conservatively estimated by summing the following doses: the total body air submersion dose for each quarter, the thyroid dose from airborne effluents for each quarter, the total body dose from liquid effluents for each quarter, the thyroid dose from liquid effluents for each quarter, and any identifiable increase in direct radiation dose levels as measured by the REMP. This dose is compared to the 40 CFR 190 limit for thyroid dose to determine compliance.

Total dose from the fuel cycle is presented in Table 9.

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**Table 1  
Doses from Airborne Effluents  
First Quarter**

**Individual Doses**

Pathway	Dose	Quarterly Limit	Percent of Limit	Location
<b>External</b>				
Gamma Air	5.8E-06 mrad	5 mrad	< 1 %	S/6800 meters
Beta Air	9.3E-06 mrad	10 mrad	< 1 %	S/6800 meters
<b>Submersion</b>				
Total Body	2.7E-04 mrem	NA	NA	N/2000 meters
Skin	3.2E-04 mrem	NA	NA	N/2000 meters
<b>Organ Doses</b>				
Child/Bone	1.4E-02 mrem	7.5 mrem	< 1 %	NNW/1770 meters
Child/Thyroid	4.1E-02 mrem	7.5 mrem	< 1 %	NNW/1770 meters
Child/Total Body	1.2E-02 mrem	7.5 mrem	< 1 %	NNW/1770 meters

**Population Doses**

Total Body Dose                      1.9E-02 man-rem

Maximum Organ Dose (organ)    8.1E-02 man-rem (thyroid)

*Population doses can be compared to the natural background dose for the entire 50-mile population of about 70,044 man-rem/year (based on 90 mrem/yr for natural background).*

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**Table 2  
Doses from Airborne Effluents  
Second Quarter**

**Individual Doses**

Pathway	Dose	Quarterly Limit	Percent of Limit	Location
<b>External</b>				
Gamma Air	1.1E-05 mrad	5 mrad	< 1 %	WNW/5500 meters
Beta Air	3.0E-05 mrad	10 mrad	< 1 %	WNW/5500 meters
<b>Submersion</b>				
Total Body	9.4E-04 mrem	NA	NA	NNW/1639 meters
Skin	1.1E-03 mrem	NA	NA	NNW/1639 meters
<b>Organ Doses</b>				
Child/Liver	8.3E-03 mrem	7.5 mrem	< 1 %	NNW/1770 meters
Child/Thyroid	2.4E-01 mrem	7.5 mrem	3 %	NNW/1770 meters
Child /Total Body	4.6E-03 mrem	7.5 mrem	< 1 %	NNW/1770 meters

**Population Doses**

Total Body Dose                      1.3E-02 man-rem

Maximum Organ Dose (organ)    7.7E-01 man-rem (thyroid)

*Population doses can be compared to the natural background dose for the entire 50-mile population of about 70,044 man-rem/year (based on 90 mrem/yr for natural background).*

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Table 3  
 Doses from Airborne Effluents  
 Third Quarter

**Individual Doses**

Pathway	Dose	Quarterly Limit	Percent of Limit	Location
<b>External</b>				
Gamma Air	9.1E-04 mrad	5 mrad	< 1 %	NNW/5600 meters
Beta Air	1.2E-03 mrad	10 mrad	< 1 %	NNW/5600 meters
<b>Submersion</b>				
Total Body	1.6E-03 mrem	NA	NA	NNW/1639 meters
Skin	1.9E-03 mrem	NA	NA	NNW/1639 meters
<b>Organ Doses</b>				
Child/Bone	1.6E-02 mrem	7.5 mrem	< 1 %	NNW/1770 meters
Child/Thyroid	1.9E-02 mrem	7.5 mrem	< 1 %	NNW/1770 meters
Adult/Total Body	6.1E-03 mrem	7.5 mrem	< 1 %	NNW/1770 meters

**Population Doses**

Total Body Dose                      3.2E-02 man-rem

Maximum Organ Dose (organ)    7.9E-02 man-rem (thyroid)

*Population doses can be compared to the natural background dose for the entire 50-mile population of about 70,044 man-rem/year (based on 90 mrem/yr for natural background).*

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**Table 4  
Doses from Airborne Effluents  
Fourth Quarter**

**Individual Doses**

Pathway	Dose	Quarterly Limit	Percent of Limit	Location
<b>External</b>				
Gamma Air	5.3E-04 mrad	5 mrad	<1 %	SSE/7800 meters
Beta Air	5.7E-04 mrad	10 mrad	<1 %	SSE/7800 meters
<b>Submersion</b>				
Total Body	2.8E-03 mrem	NA	NA	NNW/1639 meters
Skin	3.3E-03 mrem	NA	NA	NNW/1639 meters
<b>Organ Doses</b>				
Child/ Bone	4.4E-02 mrem	7.5 mrem	<1 %	NNW/1770 meters
Child/Thyroid	6.5E-01 mrem	7.5 mrem	8.7 %	NNW/1770 meters
Child /Total Body	2.1E-02 mrem	7.5 mrem	<1 %	NNW/1770 meters

**Population Doses**

Total Body Dose 8.2E-02 man-rem

Maximum Organ Dose (organ) 2.1E+00 man-rem (thyroid)

*Population doses can be compared to the natural background dose for the entire 50-mile population of about 70,044 man-rem/year (based on 90 mrem/yr for natural background).*

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Table 5  
 Doses from Liquid Effluents  
 First Quarter\*

**Individual Doses (mrem)**

Age Group	Organ	Dose Pathway	Dose	Quarterly Limit	Percent of Limit
	<b>Total Body</b>	Fish Ingestion	0		
		Recreation	0		
		Water Ingestion	0		
		<b>Total</b>	<b>0</b>	<b>1.5 mrem</b>	<b>0 %</b>
	<b>Liver</b>	Fish Ingestion	0		
		Recreation	0		
		Water Ingestion	0		
		<b>Total</b>	<b>0</b>	<b>5 mrem</b>	<b>0 %</b>
	<b>Thyroid</b>	Fish Ingestion	0		
		Recreation	0		
		Water Ingestion	0		
		<b>Total</b>	<b>0</b>	<b>5 mrem</b>	<b>0 %</b>

\*No liquid releases were made this quarter.

Average Riverflow past BFN (cubic feet per second): No Release

**Population Doses**

Total Body Dose                      0 man-rem

Maximum Organ Dose (organ)    0 man-rem (organ)

*Population doses can be compared to the natural background dose for the entire 50-mile population of about 70,044 man-rem/year (based on 90 mrem/yr for natural background).*



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**Table 6  
Doses from Liquid Effluents  
Second Quarter\***

**Individual Doses (mrem)**

Age Group	Organ	Dose Pathway	Dose	Quarterly Limit	Percent of Limit
	<b>Total Body</b>	Fish Ingestion	0		
		Recreation	0		
		Water Ingestion	0		
		<b>Total</b>	<b>0</b>	<b>1.5 mrem</b>	<b>0 %</b>
	<b>Liver</b>	Fish Ingestion	0		
		Recreation	0		
		Water Ingestion	0		
		<b>Total</b>	<b>0</b>	<b>5 mrem</b>	<b>0 %</b>
	<b>Thyroid</b>	Fish Ingestion	0		
		Recreation	0		
		Water Ingestion	0		
		<b>Total</b>	<b>0</b>	<b>5 mrem</b>	<b>0 %</b>

**\*No liquid releases were made this quarter.**

Average Riverflow past BFN (cubic feet per second): No Release

**Population Doses**

Total Body Dose                      0 man-rem

Maximum Organ Dose (organ)    0 man-rem (organ)

*Population doses can be compared to the natural background dose for the entire 50-mile population of about 70,044 man-rem/year (based on 90 mrem/yr for natural background).*

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Table 7  
 Doses from Liquid Effluents  
 Third Quarter

Individual Doses (mrem)

Age Group	Organ	Dose Pathway	Dose	Quarterly Limit	Percent of Limit
	<b>Total Body</b>	Fish Ingestion	0		
		Recreation	0		
		Water Ingestion	0		
		<b>Total</b>	<b>0</b>	<b>1.5 mrem</b>	<b>0 %</b>
	<b>Liver</b>	Fish Ingestion	0		
		Recreation	0		
		Water Ingestion	0		
		<b>Total</b>	<b>0</b>	<b>5 mrem</b>	<b>0 %</b>
	<b>Thyroid</b>	Fish Ingestion	0		
		Recreation	0		
		Water Ingestion	0		
		<b>Total</b>	<b>0</b>	<b>5 mrem</b>	<b>0 %</b>

\*No liquid releases were made this quarter.

Average Riverflow past BFN (cubic feet per second): No Release

Population Doses

Total Body Dose                      0 man-rem

Maximum Organ Dose (organ)    0 man-rem (organ)

*Population doses can be compared to the natural background dose for the entire 50-mile population of about 70,044 man-rem/year (based on 90 mrem/yr for natural background).*

**Radiological Impact Assessment  
Browns Ferry Nuclear Plant  
January - December 2002**

**Table 8  
Doses from Liquid Effluents  
Fourth Quarter**

**Individual Doses (mrem)**

Age Group	Organ	Dose Pathway	Dose	Quarterly Limit	Percent of Limit
	<b>Total Body</b>	Fish Ingestion	0		
		Recreation	0		
		Water Ingestion	0		
		<b>Total</b>	<b>0</b>	<b>1.5 mrem</b>	<b>0 %</b>
	<b>Liver</b>	Fish Ingestion	0		
		Recreation	0		
		Water Ingestion	0		
		<b>Total</b>	<b>0</b>	<b>5 mrem</b>	<b>0 %</b>
	<b>Thyroid</b>	Fish Ingestion	0		
		Recreation	0		
		Water Ingestion	0		
		<b>Total</b>	<b>0</b>	<b>5 mrem</b>	<b>0 %</b>

**\*No liquid releases were made this quarter.**

Average Riverflow past BFN (cubic feet per second): No Release

**Population Doses**

Total Body Dose                      0 man-rem

Maximum Organ Dose (organ)    0 man-rem (organ)

*Population doses can be compared to the natural background dose for the entire 50-mile population of about 70,044 man-rem/year (based on 90 mrem/yr for natural background).*

**Radiological Impact Assessment  
Browns Ferry Nuclear Plant  
January - December 2002**

**Table 9  
Total Dose from Fuel Cycle**

<b>Dose</b>	<b>First Quarter</b>	<b>Second Quarter</b>	<b>Third Quarter</b>	<b>Fourth Quarter</b>	
<b>Total Body or any Organ (except thyroid)</b>					
Total body air submersion	2.7E-04	9.4E-04	1.6E-03	2.8E-03	
Critical organ dose (air)	1.4E-02	8.3E-03	1.6E-02	4.4E-02	
Total body dose (liquid)	0	0	0	0	
Maximum organ dose (liquid)	0	0	0	0	
Direct Radiation Dose	0	0	0	0	
<b>Total</b>	<b>1.4E-02</b>	<b>9.2E-03</b>	<b>1.8E-02</b>	<b>4.7E-02</b>	
<b>Cumulative Total Dose (mrem) (Total body or any other organ)</b>					<b>8.8E-02</b>
<b>Annual Dose Limit (mrem)</b>					<b>2.5E+01</b>
<b>Percent of Limit</b>					<b>&lt; 1 %</b>
<b>Thyroid Dose (mrem)</b>					
Total body air submersion	2.7E-04	9.4E-04	1.6E-03	2.8E-03	
Thyroid dose (airborne)	4.1E-02	2.4E-01	1.9E-02	6.5E-01	
Total body dose (liquid)	0	0	0	0	
Thyroid dose (liquid)	0	0	0	0	
Direct Radiation Dose	0	0	0	0	
<b>Total</b>	<b>4.1E-02</b>	<b>2.4E-01</b>	<b>2.1E-02</b>	<b>6.5E-01</b>	
<b>Cumulative Total Dose (Thyroid) mrem</b>					<b>9.6E-01</b>
<b>Annual Dose Limit (mrem)</b>					<b>7.5E+01</b>
<b>Percent of Limit</b>					<b>1.3 %</b>

**ENCLOSURE 2**

**TENNESSEE VALLEY AUTHORITY  
BROWNS FERRY NUCLEAR PLANT (BFN)  
UNITS 1, 2, AND 3**

**METEOROLOGICAL DATA TABLES  
JANUARY THROUGH DECEMBER 2002**

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RADIOLOGICAL IMPACT ASSESSMENT  
BROWNS FERRY NUCLEAR PLANT  
JANUARY - DECEMBER 2002

TABLE 10

JOINT FREQUENCY DISTRIBUTION IN PERCENT  
FOR GROUND LEVEL RELEASES  
FIRST QUARTER

JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS A (DELTA T<=-1.9 C/100 M)

Browns Ferry Nuclear Plant

JAN 1, 2002 - MAR 31, 2002

WIND DIRECTION	CALM	0.6-1.4	1.5-3.4	WIND SPEED(MPH)						>=24.5	TOTAL
				3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4			
N	0.000	0.000	0.000	0.000	0.236	0.567	0.142	0.000	0.000	0.000	0.946
NNE	0.000	0.000	0.000	0.095	0.095	0.331	0.095	0.000	0.000	0.000	0.615
NE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ENE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
E	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ESE	0.000	0.000	0.000	0.000	0.000	0.095	0.000	0.000	0.000	0.000	0.095
SE	0.000	0.000	0.047	1.040	0.473	0.000	0.000	0.000	0.000	0.000	1.560
SSE	0.000	0.000	0.095	0.615	0.047	0.000	0.000	0.000	0.000	0.000	0.757
S	0.000	0.000	0.047	0.709	0.378	0.000	0.000	0.000	0.000	0.000	1.135
SSW	0.000	0.000	0.189	0.567	0.095	0.000	0.000	0.000	0.000	0.000	0.851
SW	0.000	0.000	0.047	0.000	0.047	0.000	0.000	0.000	0.000	0.000	0.095
WSW	0.000	0.000	0.047	0.047	0.000	0.000	0.000	0.000	0.000	0.000	0.095
W	0.000	0.000	0.000	0.095	0.142	0.095	0.047	0.000	0.000	0.000	0.378
WNW	0.000	0.000	0.000	0.047	0.095	0.615	0.284	0.000	0.000	0.000	1.040
NW	0.000	0.000	0.000	0.000	0.047	0.804	0.189	0.000	0.000	0.000	1.040
NNW	0.000	0.000	0.000	0.000	0.189	0.757	0.615	0.000	0.000	0.000	1.560
SUBTOTAL	0.000	0.000	0.473	3.215	1.844	3.262	1.371	0.000	0.000	0.000	10.165

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2125
TOTAL HOURS OF STABILITY CLASS A	215
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS A	215
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2115
TOTAL HOURS CALM	0

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant  
 STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
 WIND SPEED AND DIRECTION MEASURED AT 10.50 METER LEVEL

DATE PRINTED: 2002/05/15

MEAN WIND SPEED = 7.66

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

## JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS B (-1.9&lt; DELTA T&lt;=-1.7 C/100 M)

Browns Ferry Nuclear Plant

JAN 1, 2002 - MAR 31, 2002

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.000	0.000	0.047	0.142	0.000	0.000	0.000	0.189
NNE	0.000	0.000	0.000	0.000	0.426	0.095	0.000	0.000	0.000	0.520
NE	0.000	0.000	0.000	0.000	0.000	0.047	0.000	0.000	0.000	0.047
ENE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
E	0.000	0.000	0.000	0.047	0.000	0.000	0.000	0.000	0.000	0.047
ESE	0.000	0.000	0.000	0.000	0.047	0.000	0.000	0.000	0.000	0.047
SE	0.000	0.000	0.047	0.236	0.047	0.000	0.000	0.000	0.000	0.331
SSE	0.000	0.000	0.189	0.142	0.000	0.000	0.000	0.000	0.000	0.331
S	0.000	0.000	0.142	0.047	0.047	0.047	0.000	0.000	0.000	0.284
SSW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SW	0.000	0.000	0.047	0.000	0.000	0.000	0.000	0.000	0.000	0.047
WSW	0.000	0.000	0.047	0.047	0.047	0.000	0.000	0.000	0.000	0.142
W	0.000	0.000	0.000	0.142	0.000	0.047	0.047	0.000	0.000	0.236
WNW	0.000	0.000	0.000	0.047	0.142	0.189	0.331	0.000	0.000	0.709
NW	0.000	0.000	0.000	0.047	0.000	0.236	0.189	0.000	0.000	0.473
NNW	0.000	0.000	0.000	0.000	0.000	0.189	0.000	0.000	0.000	0.189
SUBTOTAL	0.000	0.000	0.473	0.757	0.804	0.993	0.567	0.000	0.000	3.593

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2125
TOTAL HOURS OF STABILITY CLASS B	76
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS B	76
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2115
TOTAL HOURS CALM	0

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant  
 STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
 WIND SPEED AND DIRECTION MEASURED AT 10.50 METER LEVEL

DATE PRINTED: 2002/05/15

MEAN WIND SPEED = 7.89

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS



## JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS C (-1.7&lt; DELTA T&lt;=-1.5 C/100 M)

Browns Ferry Nuclear Plant

JAN 1, 2002 - MAR 31, 2002

WIND DIRECTION	WIND SPEED(MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.000	0.000	0.142	0.000	0.000	0.000	0.000	0.142
NNE	0.000	0.000	0.000	0.000	0.331	0.095	0.000	0.000	0.000	0.426
NE	0.000	0.000	0.000	0.000	0.000	0.047	0.000	0.000	0.000	0.047
ENE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
E	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ESE	0.000	0.000	0.000	0.047	0.000	0.000	0.000	0.000	0.000	0.047
SE	0.000	0.000	0.047	0.284	0.047	0.000	0.000	0.000	0.000	0.378
SSE	0.000	0.000	0.095	0.095	0.047	0.000	0.000	0.000	0.000	0.236
S	0.000	0.000	0.095	0.189	0.000	0.000	0.000	0.000	0.000	0.284
SSW	0.000	0.000	0.000	0.095	0.000	0.047	0.000	0.000	0.000	0.142
SW	0.000	0.000	0.095	0.000	0.000	0.000	0.000	0.000	0.000	0.095
WSW	0.000	0.000	0.000	0.000	0.000	0.047	0.000	0.000	0.000	0.047
W	0.000	0.000	0.000	0.047	0.095	0.000	0.000	0.000	0.000	0.142
WNW	0.000	0.000	0.000	0.000	0.095	0.142	0.236	0.095	0.000	0.567
NW	0.000	0.000	0.000	0.047	0.000	0.236	0.189	0.000	0.000	0.473
NNW	0.000	0.000	0.000	0.047	0.000	0.331	0.095	0.000	0.000	0.473
SUBTOTAL	0.000	0.000	0.331	0.851	0.757	0.946	0.520	0.095	0.000	3.499

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2125
TOTAL HOURS OF STABILITY CLASS C	74
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS C	74
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2115
TOTAL HOURS CALM	0

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant  
STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
WIND SPEED AND DIRECTION MEASURED AT 10.50 METER LEVEL

DATE PRINTED: 2002/05/15.

MEAN WIND SPEED = 8.02

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS D (-1.5 < DELTA T <= -0.5 C/100 M)

Browns Ferry Nuclear Plant

JAN 1, 2002 - MAR 31, 2002

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.142	0.426	0.662	2.364	0.047	0.047	0.000	3.688
NNE	0.000	0.000	0.331	0.709	1.040	0.757	0.000	0.000	0.000	2.837
NE	0.000	0.000	0.236	0.520	0.757	0.378	0.000	0.000	0.000	1.891
ENE	0.000	0.047	0.331	0.520	0.189	0.000	0.000	0.000	0.000	1.087
E	0.000	0.000	0.284	0.236	0.142	0.047	0.000	0.000	0.000	0.709
ESE	0.000	0.095	0.189	0.236	0.142	0.142	0.000	0.000	0.000	0.804
SE	0.000	0.000	0.520	0.709	0.189	0.284	0.000	0.000	0.000	1.702
SSE	0.000	0.000	0.615	0.567	0.047	0.000	0.000	0.000	0.000	1.229
S	0.000	0.000	0.378	0.189	0.473	0.142	0.000	0.000	0.000	1.182
SSW	0.000	0.000	0.331	0.331	0.000	0.047	0.000	0.000	0.000	0.709
SW	0.000	0.000	0.142	0.142	0.000	0.047	0.000	0.000	0.000	0.331
WSW	0.000	0.000	0.236	0.095	0.142	0.142	0.000	0.000	0.000	0.615
W	0.000	0.000	0.142	0.284	0.520	0.662	0.047	0.000	0.000	1.655
WNW	0.000	0.000	0.095	0.142	0.236	0.804	1.229	0.142	0.000	2.648
NW	0.000	0.000	0.095	0.236	0.473	2.270	1.986	0.142	0.000	5.201
NNW	0.000	0.000	0.095	0.378	0.709	2.128	0.473	0.047	0.000	3.830
SUBTOTAL	0.000	0.142	4.161	5.721	5.721	10.213	3.783	0.378	0.000	30.118

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2125
TOTAL HOURS OF STABILITY CLASS D	641
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS D	637
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2115
TOTAL HOURS CALM	0

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant  
 STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
 WIND SPEED AND DIRECTION MEASURED AT 10.50 METER LEVEL

DATE PRINTED: 2002/05/15

MEAN WIND SPEED = 7.73

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS E (-0.5< DELTA T<= 1.5 C/100 M)

Browns Ferry Nuclear Plant

JAN 1, 2002 - MAR 31, 2002

WIND DIRECTION	WIND SPEED(MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.426	0.567	0.426	0.331	0.000	0.000	0.000	1.749
NNE	0.000	0.000	0.284	0.331	0.426	0.142	0.000	0.000	0.000	1.182
NE	0.000	0.000	0.142	0.615	0.236	0.047	0.000	0.000	0.000	1.040
ENE	0.000	0.000	0.142	0.095	0.142	0.000	0.000	0.000	0.000	0.378
E	0.000	0.000	0.473	0.095	0.047	0.000	0.000	0.000	0.000	0.615
ESE	0.000	0.000	0.993	0.284	0.142	0.000	0.000	0.000	0.000	1.418
SE	0.000	0.000	1.087	0.615	0.236	0.047	0.000	0.000	0.000	1.986
SSE	0.000	0.095	0.898	1.466	0.095	0.189	0.000	0.000	0.000	2.742
S	0.000	0.095	0.851	2.175	1.182	0.709	0.000	0.000	0.000	5.012
SSW	0.000	0.047	0.662	0.709	0.189	0.142	0.000	0.000	0.000	1.749
SW	0.000	0.047	0.426	0.047	0.047	0.047	0.000	0.000	0.000	0.615
WSW	0.000	0.000	0.520	0.095	0.000	0.047	0.000	0.000	0.000	0.662
W	0.000	0.047	0.520	0.426	0.473	0.000	0.000	0.000	0.000	1.466
WNW	0.000	0.000	0.000	0.000	0.236	0.236	0.000	0.000	0.000	0.473
NW	0.000	0.047	0.284	0.426	0.378	0.520	0.047	0.000	0.000	1.702
NNW	0.000	0.047	0.189	0.757	0.520	0.331	0.047	0.000	0.000	1.891
SUBTOTAL	0.000	0.426	7.896	8.700	4.775	2.790	0.095	0.000	0.000	24.681

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2125
TOTAL HOURS OF STABILITY CLASS E	525
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS E	522
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2115
TOTAL HOURS CALM	0

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant  
 STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
 WIND SPEED AND DIRECTION MEASURED AT 10.50 METER LEVEL

DATE PRINTED: 2002/05/15

MEAN WIND SPEED = 4.65

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS F ( 1.5< DELTA T<= 4.0 C/100 M)

Browns Ferry Nuclear Plant

JAN 1, 2002 - MAR 31, 2002

WIND DIRECTION	WIND SPEED(MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.004	0.047	0.615	0.567	0.000	0.000	0.000	0.000	0.000	1.233
NNE	0.001	0.000	0.236	0.378	0.095	0.000	0.000	0.000	0.000	0.711
NE	0.001	0.000	0.236	0.142	0.047	0.000	0.000	0.000	0.000	0.427
ENE	0.003	0.000	0.520	0.095	0.047	0.000	0.000	0.000	0.000	0.665
E	0.003	0.047	0.473	0.567	0.000	0.000	0.000	0.000	0.000	1.090
ESE	0.002	0.047	0.378	0.047	0.000	0.000	0.000	0.000	0.000	0.475
SE	0.010	0.095	1.702	0.567	0.047	0.000	0.000	0.000	0.000	2.422
SSE	0.010	0.142	1.513	0.378	0.236	0.047	0.000	0.000	0.000	2.326
S	0.004	0.189	0.473	1.135	0.898	0.993	0.000	0.000	0.000	3.692
SSW	0.002	0.142	0.236	0.331	0.236	0.047	0.000	0.000	0.000	0.995
SW	0.001	0.095	0.095	0.095	0.000	0.000	0.000	0.000	0.000	0.285
WSW	0.000	0.047	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.048
W	0.001	0.095	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.095
WNW	0.001	0.000	0.095	0.047	0.000	0.000	0.000	0.000	0.000	0.142
NW	0.001	0.000	0.142	0.095	0.095	0.000	0.000	0.000	0.000	0.332
NNW	0.003	0.142	0.331	0.898	0.095	0.000	0.000	0.000	0.000	1.468
SUBTOTAL	0.047	1.087	7.045	5.343	1.797	1.087	0.000	0.000	0.000	16.407

TOTAL HOURS OF VALID STABILITY OBSERVATIONS

2125

TOTAL HOURS OF STABILITY CLASS F

350

TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS F

347

TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS

2115

TOTAL HOURS CALM

1

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant

STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS

WIND SPEED AND DIRECTION MEASURED AT 10.50 METER LEVEL

DATE PRINTED: 2002/05/15

MEAN WIND SPEED = 3.78

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

## JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS G (DELTA T &gt; 4.0 C/100 M)

Browns Ferry Nuclear Plant

JAN 1, 2002 - MAR 31, 2002

WIND DIRECTION	WIND SPEED (MPH)									TOTAL ↓
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.236	0.426	0.378	0.000	0.000	0.000	0.000	0.000	1.040
NNE	0.000	0.095	0.189	0.142	0.000	0.000	0.000	0.000	0.000	0.426
NE	0.000	0.000	0.047	0.000	0.000	0.000	0.000	0.000	0.000	0.047
ENE	0.000	0.000	0.284	0.000	0.000	0.000	0.000	0.000	0.000	0.284
E	0.000	0.000	0.047	0.000	0.000	0.000	0.000	0.000	0.000	0.047
ESE	0.000	0.095	0.047	0.047	0.000	0.000	0.000	0.000	0.000	0.189
SE	0.000	0.047	0.898	0.047	0.047	0.000	0.000	0.000	0.000	1.040
SSE	0.000	0.662	3.546	0.804	0.047	0.000	0.000	0.000	0.000	5.059
S	0.000	0.095	1.087	0.615	0.331	0.000	0.000	0.000	0.000	2.128
SSW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SW	0.000	0.000	0.047	0.000	0.000	0.000	0.000	0.000	0.000	0.047
WSW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
W	0.000	0.095	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.095
WNW	0.000	0.047	0.142	0.000	0.000	0.000	0.000	0.000	0.000	0.189
NW	0.000	0.095	0.047	0.000	0.000	0.000	0.000	0.000	0.000	0.142
NNW	0.000	0.047	0.615	0.095	0.047	0.000	0.000	0.000	0.000	0.804
SUBTOTAL	0.000	1.513	7.423	2.128	0.473	0.000	0.000	0.000	0.000	11.537

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2125
TOTAL HOURS OF STABILITY CLASS G	244
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS G	244
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2115
TOTAL HOURS CALM	0

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant  
 STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
 WIND SPEED AND DIRECTION MEASURED AT 10.50 METER LEVEL

DATE PRINTED: 2002/05/15

MEAN WIND SPEED = 2.73

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

RADIOLOGICAL IMPACT ASSESSMENT  
BROWNS FERRY NUCLEAR PLANT  
JANUARY - DECEMBER 2002

TABLE 11

JOINT FREQUENCY DISTRIBUTION IN PERCENT  
FOR GROUND LEVEL RELEASES  
SECOND QUARTER

JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS A (DELTA T<=-1.9 C/100 M)

Browns Ferry Nuclear Plant

APR 1, 2002 - JUN 30, 2002

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.000	0.047	0.142	1.609	0.047	0.000	0.000	1.846
NNE	0.000	0.000	0.000	0.000	0.142	0.663	0.000	0.000	0.000	0.805
NE	0.000	0.000	0.000	0.000	0.000	0.000	0.047	0.000	0.000	0.047
ENE	0.000	0.000	0.000	0.000	0.047	0.000	0.000	0.000	0.000	0.047
E	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ESE	0.000	0.000	0.000	0.473	0.947	0.237	0.000	0.000	0.000	1.656
SE	0.000	0.000	0.473	2.366	0.426	0.095	0.000	0.000	0.000	3.360
SSE	0.000	0.000	0.757	0.615	0.095	0.000	0.000	0.000	0.000	1.467
S	0.000	0.000	1.041	0.899	0.000	0.000	0.000	0.000	0.000	1.940
SSW	0.000	0.000	0.237	0.805	0.000	0.000	0.000	0.000	0.000	1.041
SW	0.000	0.000	0.047	0.331	0.000	0.000	0.000	0.000	0.000	0.379
WSW	0.000	0.000	0.000	0.331	0.000	0.047	0.000	0.000	0.000	0.379
W	0.000	0.000	0.000	0.095	0.095	0.000	0.000	0.000	0.000	0.189
WNW	0.000	0.000	0.000	0.047	0.095	0.331	0.047	0.000	0.000	0.521
NW	0.000	0.000	0.000	0.047	0.142	0.473	0.095	0.047	0.000	0.805
NNW	0.000	0.000	0.000	0.047	0.047	0.284	0.142	0.000	0.000	0.521
SUBTOTAL	0.000	0.000	2.556	6.105	2.177	3.739	0.379	0.047	0.000	15.002

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2130
TOTAL HOURS OF STABILITY CLASS A	317
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS A	317
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2113
TOTAL HOURS CALM	0

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant  
 STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
 WIND SPEED AND DIRECTION MEASURED AT 10.50 METER LEVEL

DATE PRINTED: 2002/08/06

MEAN WIND SPEED = 6.09

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS B (-1.9< DELTA T<=-1.7 C/100 M)

Browns Ferry Nuclear Plant

APR 1, 2002 - JUN 30, 2002

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.000	0.047	0.000	0.189	0.000	0.000	0.000	0.237
NNE	0.000	0.000	0.000	0.047	0.095	0.189	0.047	0.000	0.000	0.379
NE	0.000	0.000	0.000	0.000	0.000	0.189	0.000	0.000	0.000	0.189
ENE	0.000	0.000	0.000	0.000	0.047	0.000	0.000	0.000	0.000	0.047
E	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ESE	0.000	0.000	0.000	0.284	0.095	0.000	0.000	0.000	0.000	0.379
SE	0.000	0.000	0.237	0.189	0.095	0.000	0.000	0.000	0.000	0.521
SSE	0.000	0.000	0.284	0.047	0.000	0.000	0.000	0.000	0.000	0.331
S	0.000	0.000	0.237	0.237	0.047	0.000	0.000	0.000	0.000	0.521
SSW	0.000	0.000	0.379	0.331	0.000	0.000	0.000	0.000	0.000	0.710
SW	0.000	0.000	0.189	0.331	0.000	0.000	0.000	0.000	0.000	0.521
WSW	0.000	0.000	0.095	0.473	0.000	0.047	0.000	0.000	0.000	0.615
W	0.000	0.000	0.000	0.142	0.000	0.047	0.000	0.000	0.000	0.189
WNW	0.000	0.000	0.047	0.000	0.047	0.047	0.000	0.000	0.000	0.142
NW	0.000	0.000	0.000	0.000	0.095	0.189	0.047	0.000	0.000	0.331
NNW	0.000	0.000	0.000	0.000	0.047	0.000	0.000	0.000	0.000	0.047
SUBTOTAL	0.000	0.000	1.467	2.130	0.568	0.899	0.095	0.000	0.000	5.159

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2130
TOTAL HOURS OF STABILITY CLASS B	110
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS B	109
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2113
TOTAL HOURS CALM	0

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant  
 STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
 WIND SPEED AND DIRECTION MEASURED AT 10.50 METER LEVEL

DATE PRINTED: 2002/08/06

MEAN WIND SPEED = 5.22

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS



## JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS C (-1.7&lt; DELTA T&lt;=-1.5 C/100 M)

Browns Ferry Nuclear Plant

APR 1, 2002 - JUN 30, 2002

WIND DIRECTION	CALM	0.6-1.4	1.5-3.4	WIND SPEED(MPH)							TOTAL
				3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5		
N	0.000	0.000	0.000	0.000	0.000	0.189	0.000	0.000	0.000		0.189
NNE	0.000	0.000	0.000	0.000	0.095	0.047	0.000	0.000	0.000		0.142
NE	0.000	0.000	0.000	0.000	0.000	0.142	0.000	0.000	0.000		0.142
ENE	0.000	0.000	0.000	0.095	0.142	0.000	0.000	0.000	0.000		0.237
E	0.000	0.000	0.000	0.047	0.000	0.000	0.000	0.000	0.000		0.047
ESE	0.000	0.000	0.047	0.284	0.095	0.047	0.000	0.000	0.000		0.473
SE	0.000	0.000	0.142	0.142	0.047	0.000	0.000	0.000	0.000		0.331
SSE	0.000	0.000	0.331	0.142	0.000	0.000	0.000	0.000	0.000		0.473
S	0.000	0.000	0.284	0.095	0.095	0.000	0.000	0.000	0.000		0.473
SSW	0.000	0.000	0.284	0.189	0.000	0.000	0.000	0.000	0.000		0.473
SW	0.000	0.000	0.237	0.237	0.000	0.000	0.000	0.000	0.000		0.473
WSW	0.000	0.000	0.000	0.047	0.047	0.000	0.000	0.000	0.000		0.095
W	0.000	0.000	0.047	0.095	0.047	0.000	0.000	0.000	0.000		0.189
WNW	0.000	0.000	0.000	0.000	0.095	0.047	0.000	0.000	0.000		0.142
NW	0.000	0.000	0.000	0.047	0.189	0.284	0.095	0.000	0.000		0.615
NNW	0.000	0.000	0.000	0.047	0.000	0.095	0.000	0.000	0.000		0.142
SUBTOTAL	0.000	0.000	1.372	1.467	0.852	0.852	0.095	0.000	0.000		4.638

TOTAL HOURS OF VALID STABILITY OBSERVATIONS

2130

TOTAL HOURS OF STABILITY CLASS C

101

TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS C

98

TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS

2113

TOTAL HOURS CALM

0

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant

STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS

WIND SPEED AND DIRECTION MEASURED AT 10.50 METER LEVEL

DATE PRINTED: 2002/08/06

MEAN WIND SPEED = 5.48

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS D (-1.5< DELTA T<=-0.5 C/100 M)

Browns Ferry Nuclear Plant

APR 1, 2002 - JUN 30, 2002

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.047	0.237	0.379	0.757	0.000	0.000	0.000	1.420
NNE	0.000	0.000	0.142	0.284	0.426	0.568	0.000	0.000	0.000	1.420
NE	0.000	0.000	0.047	0.237	0.426	0.142	0.000	0.000	0.000	0.852
ENE	0.000	0.000	0.142	0.237	0.095	0.000	0.000	0.000	0.000	0.473
E	0.000	0.000	0.142	0.473	0.142	0.000	0.000	0.000	0.000	0.757
ESE	0.000	0.000	0.473	1.609	1.183	0.189	0.000	0.000	0.000	3.455
SE	0.000	0.000	1.230	1.325	0.331	0.047	0.000	0.000	0.000	2.934
SSE	0.000	0.000	0.947	0.284	0.047	0.000	0.000	0.000	0.000	1.278
S	0.000	0.047	1.514	0.426	0.237	0.000	0.000	0.000	0.000	2.224
SSW	0.000	0.095	1.514	1.088	0.379	0.000	0.000	0.000	0.000	3.076
SW	0.000	0.047	0.568	0.237	0.000	0.000	0.000	0.000	0.000	0.852
WSW	0.000	0.000	0.615	0.331	0.095	0.284	0.000	0.000	0.000	1.325
W	0.000	0.000	0.331	0.331	0.095	0.047	0.000	0.000	0.000	0.805
WNW	0.000	0.000	0.237	0.568	0.237	0.284	0.000	0.047	0.000	1.372
NW	0.000	0.047	0.142	0.331	0.710	0.899	0.095	0.000	0.000	2.224
NNW	0.000	0.000	0.047	0.331	0.237	0.663	0.426	0.000	0.000	1.704
SUBTOTAL	0.000	0.237	8.140	8.329	5.017	3.881	0.521	0.047	0.000	26.171

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2130
TOTAL HOURS OF STABILITY CLASS D	562
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS D	553
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2113
TOTAL HOURS CALM	0

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant  
 STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
 WIND SPEED AND DIRECTION MEASURED AT 10.50 METER LEVEL

MEAN WIND SPEED = 5.12

DATE PRINTED: 2002/08/06

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS E (-0.5< DELTA T<= 1.5 C/100 M)

Browns Ferry Nuclear Plant

APR 1, 2002 - JUN 30, 2002

WIND DIRECTION	WIND SPEED(MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.047	0.710	0.994	0.710	0.331	0.000	0.000	0.000	2.792
NNE	0.000	0.095	0.331	0.473	0.284	0.237	0.000	0.000	0.000	1.420
NE	0.000	0.142	0.805	0.473	0.615	0.237	0.000	0.000	0.000	2.272
ENE	0.000	0.095	0.757	0.757	0.189	0.000	0.000	0.000	0.000	1.798
E	0.000	0.095	1.325	2.035	0.142	0.047	0.000	0.000	0.000	3.644
ESE	0.000	0.331	2.035	1.562	0.379	0.000	0.000	0.000	0.000	4.307
SE	0.000	0.095	1.562	0.379	0.047	0.000	0.000	0.000	0.000	2.082
SSE	0.000	0.189	0.899	0.284	0.237	0.095	0.000	0.000	0.000	1.704
S	0.000	0.189	1.183	0.426	0.142	0.189	0.047	0.000	0.000	2.177
SSW	0.000	0.095	0.615	0.805	0.379	0.047	0.000	0.000	0.000	1.940
SW	0.000	0.000	0.284	0.000	0.000	0.000	0.000	0.000	0.000	0.284
WSW	0.000	0.142	0.284	0.189	0.000	0.047	0.000	0.000	0.000	0.663
W	0.000	0.095	0.521	0.331	0.000	0.000	0.000	0.000	0.000	0.947
WNW	0.000	0.047	0.000	0.047	0.047	0.047	0.000	0.000	0.000	0.189
NW	0.000	0.047	0.142	0.189	0.095	0.142	0.000	0.000	0.000	0.615
NNW	0.000	0.000	0.237	0.142	0.284	0.095	0.000	0.000	0.000	0.757
SUBTOTAL	0.000	1.704	11.690	9.087	3.549	1.514	0.047	0.000	0.000	27.591

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2130
TOTAL HOURS OF STABILITY CLASS E	585
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS E	583
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2113
TOTAL HOURS CALM	0

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant  
 STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
 WIND SPEED AND DIRECTION MEASURED AT 10.50 METER LEVEL

DATE PRINTED: 2002/08/06

MEAN WIND SPEED = 3.89

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

## JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS F ( 1.5&lt; DELTA T&lt;= 4.0 C/100 M)

Browns Ferry Nuclear Plant

APR 1, 2002 - JUN 30, 2002

WIND DIRECTION	CALM	0.6-1.4	1.5-3.4	WIND SPEED(MPH)					18.5-24.4	>=24.5	TOTAL
				3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4				
N	0.000	0.095	0.521	0.379	0.095	0.000	0.000	0.000	0.000	0.000	1.088
NNE	0.000	0.095	0.473	0.663	0.095	0.000	0.000	0.000	0.000	0.000	1.325
NE	0.000	0.237	0.805	0.142	0.142	0.000	0.000	0.000	0.000	0.000	1.325
ENE	0.000	0.095	0.663	0.189	0.095	0.000	0.000	0.000	0.000	0.000	1.041
E	0.000	0.237	1.088	0.568	0.047	0.000	0.000	0.000	0.000	0.000	1.940
ESE	0.000	0.142	0.852	0.095	0.000	0.000	0.000	0.000	0.000	0.000	1.088
SE	0.000	0.521	0.899	0.095	0.000	0.000	0.000	0.000	0.000	0.000	1.514
SSE	0.000	0.568	0.379	0.142	0.095	0.095	0.000	0.000	0.000	0.000	1.278
S	0.000	0.189	0.379	0.237	0.000	0.000	0.000	0.000	0.000	0.000	0.805
SSW	0.000	0.095	0.331	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.426
SW	0.000	0.142	0.095	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.237
WSW	0.000	0.047	0.095	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.142
W	0.000	0.142	0.331	0.047	0.000	0.000	0.000	0.000	0.000	0.000	0.521
WNW	0.000	0.095	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.095
NW	0.000	0.047	0.047	0.142	0.000	0.000	0.000	0.000	0.000	0.000	0.237
NNW	0.000	0.047	0.284	0.189	0.095	0.000	0.000	0.000	0.000	0.000	0.615
SUBTOTAL	0.000	2.792	7.241	2.887	0.663	0.095	0.000	0.000	0.000	0.000	13.677

TOTAL HOURS OF VALID STABILITY OBSERVATIONS

2130

TOTAL HOURS OF STABILITY CLASS F

290

TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS F

289

TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS

2113

TOTAL HOURS CALM

0

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant

STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS

WIND SPEED AND DIRECTION MEASURED AT 10.50 METER LEVEL

DATE PRINTED: 2002/08/06

MEAN WIND SPEED = 2.69

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS G (DELTA T > 4.0 C/100 M)

Browns Ferry Nuclear Plant

APR 1, 2002 - JUN 30, 2002

WIND DIRECTION	CALM	0.6-1.4	1.5-3.4	WIND SPEED(MPH)							TOTAL
				3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5		
N	0.000	0.331	1.183	0.331	0.000	0.000	0.000	0.000	0.000		1.846
NNE	0.000	0.189	0.710	0.189	0.000	0.000	0.000	0.000	0.000		1.088
NE	0.000	0.095	0.473	0.000	0.000	0.000	0.000	0.000	0.000		0.568
ENE	0.000	0.237	0.568	0.095	0.000	0.000	0.000	0.000	0.000		0.899
E	0.000	0.237	0.142	0.095	0.000	0.000	0.000	0.000	0.000		0.473
ESE	0.000	0.142	0.047	0.000	0.000	0.000	0.000	0.000	0.000		0.189
SE	0.000	0.284	0.047	0.000	0.000	0.000	0.000	0.000	0.000		0.331
SSE	0.000	0.284	0.189	0.047	0.000	0.000	0.000	0.000	0.000		0.521
S	0.000	0.047	0.189	0.095	0.000	0.000	0.000	0.000	0.000		0.331
SSW	0.000	0.000	0.047	0.000	0.000	0.000	0.000	0.000	0.000		0.047
SW	0.000	0.047	0.047	0.000	0.000	0.000	0.000	0.000	0.000		0.095
WSW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		0.000
W	0.000	0.047	0.000	0.000	0.000	0.000	0.000	0.000	0.000		0.047
WNW	0.000	0.189	0.000	0.000	0.000	0.000	0.000	0.000	0.000		0.189
NW	0.000	0.095	0.142	0.000	0.000	0.000	0.000	0.000	0.000		0.237
NNW	0.000	0.142	0.757	0.000	0.000	0.000	0.000	0.000	0.000		0.899
SUBTOTAL	0.000	2.366	4.543	0.852	0.000	0.000	0.000	0.000	0.000		7.761

TOTAL HOURS OF VALID STABILITY OBSERVATIONS

2130

TOTAL HOURS OF STABILITY CLASS G

165

TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS G

164

TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS

2113

TOTAL HOURS CALM

0

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant

STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS

WIND SPEED AND DIRECTION MEASURED AT 10.50 METER LEVEL

DATE PRINTED: 2002/08/06

MEAN WIND SPEED = 2.07

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

RADIOLOGICAL IMPACT ASSESSMENT  
BROWNS FERRY NUCLEAR PLANT  
JANUARY - DECEMBER 2002

TABLE 12

JOINT FREQUENCY DISTRIBUTION IN PERCENT  
FOR GROUND LEVEL RELEASES  
THIRD QUARTER

## JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS A (DELTA T&lt;=-1.9 C/100 M)

Browns Ferry Nuclear Plant

JUL 1, 2002 - SEP 30, 2002

WIND DIRECTION	CALM	0.6-1.4	1.5-3.4	WIND SPEED(MPH)		7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	TOTAL
				3.5-5.4	5.5-7.4					
N	0.000	0.000	0.000	0.000	0.000	0.185	0.000	0.000	0.000	0.185
NNE	0.000	0.000	0.000	0.000	0.000	0.139	0.000	0.000	0.000	0.139
NE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ENE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
E	0.000	0.000	0.000	0.000	0.046	0.000	0.000	0.000	0.000	0.046
ESE	0.000	0.000	0.000	0.278	0.371	0.000	0.000	0.000	0.000	0.649
SE	0.000	0.000	0.185	1.437	0.046	0.000	0.000	0.000	0.000	1.669
SSE	0.000	0.000	1.066	1.762	0.000	0.000	0.000	0.000	0.000	2.828
S	0.000	0.000	0.974	1.113	0.000	0.000	0.000	0.000	0.000	2.086
SSW	0.000	0.000	0.278	0.788	0.000	0.000	0.000	0.000	0.000	1.066
SW	0.000	0.000	0.139	0.742	0.046	0.000	0.000	0.000	0.000	0.927
WSW	0.000	0.000	0.046	0.417	0.046	0.000	0.000	0.000	0.000	0.510
W	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NW	0.000	0.000	0.000	0.046	0.000	0.000	0.000	0.000	0.000	0.046
NNW	0.000	0.000	0.000	0.000	0.000	0.046	0.000	0.000	0.000	0.046
SUBTOTAL	0.000	0.000	2.689	6.583	0.556	0.371	0.000	0.000	0.000	10.199

TOTAL HOURS OF VALID STABILITY OBSERVATIONS

2188

TOTAL HOURS OF STABILITY CLASS A

221

TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS A

220

TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS

2157

TOTAL HOURS CALM

0

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant

STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS

WIND SPEED AND DIRECTION MEASURED AT 10.50 METER LEVEL

DATE PRINTED: 2002/12/03

MEAN WIND SPEED = 4.16

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS B (-1.9< DELTA T<=-1.7 C/100 M)

Browns Ferry Nuclear Plant

JUL 1, 2002 - SEP 30, 2002

WIND DIRECTION	CALM	0.6-1.4	1.5-3.4	WIND SPEED(MPH)							TOTAL
				3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5		
N	0.000	0.000	0.000	0.046	0.000	0.046	0.000	0.000	0.000		0.093
NNE	0.000	0.000	0.000	0.000	0.000	0.371	0.000	0.000	0.000		0.371
NE	0.000	0.000	0.000	0.000	0.000	0.046	0.000	0.000	0.000		0.046
ENE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		0.000
E	0.000	0.000	0.046	0.093	0.000	0.000	0.000	0.000	0.000		0.139
ESE	0.000	0.000	0.046	0.139	0.093	0.000	0.000	0.000	0.000		0.278
SE	0.000	0.000	0.185	0.185	0.000	0.000	0.000	0.000	0.000		0.371
SSE	0.000	0.000	0.834	0.278	0.000	0.000	0.000	0.000	0.000		1.113
S	0.000	0.000	0.510	0.232	0.000	0.000	0.000	0.000	0.000		0.742
SSW	0.000	0.000	0.556	0.232	0.000	0.000	0.000	0.000	0.000		0.788
SW	0.000	0.000	0.232	0.464	0.000	0.000	0.000	0.000	0.000		0.695
WSW	0.000	0.000	0.046	0.371	0.000	0.000	0.000	0.000	0.000		0.417
W	0.000	0.000	0.000	0.185	0.093	0.000	0.000	0.000	0.000		0.278
WNW	0.000	0.000	0.000	0.046	0.093	0.093	0.000	0.000	0.000		0.232
NW	0.000	0.000	0.000	0.093	0.000	0.000	0.000	0.000	0.000		0.093
NNW	0.000	0.000	0.000	0.046	0.046	0.046	0.000	0.000	0.000		0.139
SUBTOTAL	0.000	0.000	2.457	2.411	0.325	0.603	0.000	0.000	0.000		5.795

TOTAL HOURS OF VALID STABILITY OBSERVATIONS

2188

TOTAL HOURS OF STABILITY CLASS B

126

TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS B

125

TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS

2157

TOTAL HOURS CALM

0

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant

STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS

WIND SPEED AND DIRECTION MEASURED AT 10.50 METER LEVEL

MEAN WIND SPEED = 4.20

DATE PRINTED: 2002/12/03

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS



JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS C (-1.7< DELTA T<=-1.5 C/100 M)

Browns Ferry Nuclear Plant

JUL 1, 2002 - SEP 30, 2002

WIND DIRECTION	WIND SPEED(MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.046	0.093	0.000	0.139	0.000	0.000	0.000	0.278
NNE	0.000	0.000	0.000	0.093	0.139	0.232	0.000	0.000	0.000	0.464
NE	0.000	0.000	0.000	0.093	0.000	0.000	0.000	0.000	0.000	0.093
ENE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
E	0.000	0.000	0.000	0.093	0.000	0.000	0.000	0.000	0.000	0.093
ESE	0.000	0.000	0.093	0.232	0.046	0.000	0.000	0.000	0.000	0.371
SE	0.000	0.000	0.603	0.000	0.000	0.000	0.000	0.000	0.000	0.603
SSE	0.000	0.000	0.325	0.000	0.000	0.000	0.000	0.000	0.000	0.325
S	0.000	0.000	0.695	0.093	0.000	0.000	0.000	0.000	0.000	0.788
SSW	0.000	0.000	0.695	0.139	0.000	0.000	0.000	0.000	0.000	0.834
SW	0.000	0.000	0.417	0.232	0.000	0.000	0.000	0.000	0.000	0.649
WSW	0.000	0.000	0.093	0.556	0.046	0.000	0.000	0.000	0.000	0.695
W	0.000	0.000	0.046	0.185	0.139	0.046	0.000	0.000	0.000	0.417
WNW	0.000	0.000	0.046	0.093	0.185	0.000	0.000	0.000	0.000	0.325
NW	0.000	0.000	0.046	0.000	0.093	0.185	0.000	0.000	0.000	0.325
NNW	0.000	0.000	0.000	0.000	0.093	0.046	0.000	0.000	0.000	0.139
SUBTOTAL	0.000	0.000	3.106	1.901	0.742	0.649	0.000	0.000	0.000	6.398

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2188
TOTAL HOURS OF STABILITY CLASS C	139
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS C	138
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2157
TOTAL HOURS CALM	0

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant  
 STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
 WIND SPEED AND DIRECTION MEASURED AT 10.50 METER LEVEL

MEAN WIND SPEED = 4.32

DATE PRINTED: 2002/12/03

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

## JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS D (-1.5&lt; DELTA T&lt;=-0.5 C/100 M)

Browns Ferry Nuclear Plant

JUL 1, 2002 - SEP 30, 2002

WIND DIRECTION	WIND SPEED(MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.417	0.417	0.695	0.278	0.000	0.000	0.000	1.808
NNE	0.000	0.000	0.371	0.417	0.556	0.649	0.046	0.000	0.000	2.040
NE	0.000	0.000	0.417	0.510	0.185	0.325	0.000	0.000	0.000	1.437
ENE	0.000	0.000	0.417	0.371	0.325	0.232	0.000	0.000	0.000	1.344
E	0.000	0.000	0.510	0.603	0.185	0.139	0.000	0.000	0.000	1.437
ESE	0.000	0.000	0.881	1.808	0.881	0.139	0.000	0.000	0.000	3.709
SE	0.000	0.046	1.391	0.464	0.185	0.000	0.000	0.000	0.000	2.086
SSE	0.000	0.046	1.205	0.139	0.000	0.000	0.000	0.000	0.000	1.391
S	0.000	0.046	1.854	0.185	0.000	0.046	0.000	0.000	0.000	2.133
SSW	0.000	0.139	2.550	0.185	0.046	0.185	0.000	0.000	0.000	3.106
SW	0.000	0.000	1.484	0.232	0.000	0.000	0.000	0.000	0.000	1.715
WSW	0.000	0.093	1.854	0.695	0.046	0.000	0.000	0.000	0.000	2.689
W	0.000	0.000	0.881	1.205	0.325	0.093	0.000	0.000	0.000	2.503
WNW	0.000	0.000	0.278	0.742	0.788	0.464	0.000	0.000	0.000	2.272
NW	0.000	0.000	0.185	0.510	0.556	0.695	0.046	0.000	0.000	1.994
NNW	0.000	0.000	0.278	0.278	0.417	0.464	0.000	0.000	0.000	1.437
SUBTOTAL	0.000	0.371	14.975	8.762	5.192	3.709	0.093	0.000	0.000	33.102

TOTAL HOURS OF VALID STABILITY OBSERVATIONS

2188

TOTAL HOURS OF STABILITY CLASS D

728

TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS D

714

TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS

2157

TOTAL HOURS CALM

0

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant

STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS

WIND SPEED AND DIRECTION MEASURED AT 10.50 METER LEVEL

DATE PRINTED: 2002/12/03

MEAN WIND SPEED = 4.36

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS E (-0.5< DELTA T<= 1.5 C/100 M)

Browns Ferry Nuclear Plant

JUL 1, 2002 - SEP 30, 2002

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.046	0.927	0.927	0.510	0.093	0.000	0.000	0.000	2.503
NNE	0.000	0.185	0.788	0.788	0.695	0.371	0.000	0.000	0.000	2.828
NE	0.000	0.278	1.020	0.510	0.649	0.232	0.000	0.000	0.000	2.689
ENE	0.000	0.232	1.391	0.742	0.232	0.000	0.000	0.000	0.000	2.596
E	0.000	0.185	1.576	1.576	0.185	0.139	0.000	0.000	0.000	3.662
ESE	0.000	0.000	1.947	1.252	0.139	0.046	0.000	0.000	0.000	3.384
SE	0.000	0.139	1.020	0.139	0.093	0.000	0.000	0.000	0.000	1.391
SSE	0.000	0.232	0.510	0.000	0.000	0.046	0.000	0.000	0.000	0.788
S	0.000	0.325	0.927	0.000	0.046	0.046	0.000	0.000	0.000	1.344
SSW	0.000	0.185	0.927	0.000	0.093	0.139	0.000	0.000	0.000	1.344
SW	0.000	0.139	0.603	0.000	0.000	0.000	0.000	0.000	0.000	0.742
WSW	0.000	0.046	0.649	0.046	0.000	0.000	0.000	0.000	0.000	0.742
W	0.000	0.046	0.510	0.371	0.232	0.093	0.000	0.000	0.000	1.252
WNW	0.000	0.046	0.232	0.000	0.093	0.000	0.000	0.000	0.000	0.371
NW	0.000	0.046	0.325	0.139	0.000	0.000	0.000	0.000	0.000	0.510
NNW	0.000	0.139	0.464	0.417	0.046	0.000	0.000	0.000	0.000	1.066
SUBTOTAL	0.000	2.272	13.815	6.908	3.013	1.205	0.000	0.000	0.000	27.214

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2188
TOTAL HOURS OF STABILITY CLASS E	598
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS E	587
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2157
TOTAL HOURS CALM	0

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant  
 STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
 WIND SPEED AND DIRECTION MEASURED AT 10.50 METER LEVEL

DATE PRINTED: 2002/12/03

MEAN WIND SPEED = 3.49

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS F ( 1.5< DELTA T<= 4.0 C/100 M)

Browns Ferry Nuclear Plant

JUL 1, 2002 - SEP 30, 2002

WIND DIRECTION	CALM	WIND SPEED(MPH)								TQATAL
		0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.232	1.159	1.066	0.046	0.000	0.000	0.000	0.000	2.503
NNE	0.000	0.325	0.881	1.252	0.185	0.000	0.000	0.000	0.000	2.643
NE	0.000	0.000	0.417	0.185	0.046	0.000	0.000	0.000	0.000	0.649
ENE	0.000	0.139	0.881	0.417	0.000	0.000	0.000	0.000	0.000	1.437
E	0.000	0.046	0.556	0.603	0.000	0.000	0.000	0.000	0.000	1.205
ESE	0.000	0.093	0.185	0.000	0.000	0.000	0.000	0.000	0.000	0.278
SE	0.000	0.278	0.093	0.000	0.000	0.000	0.000	0.000	0.000	0.371
SSE	0.000	0.139	0.093	0.000	0.000	0.000	0.000	0.000	0.000	0.232
S	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SSW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SW	0.000	0.093	0.046	0.046	0.000	0.000	0.000	0.000	0.000	0.185
WSW	0.000	0.000	0.046	0.000	0.000	0.000	0.000	0.000	0.000	0.046
W	0.000	0.093	0.093	0.046	0.000	0.000	0.000	0.000	0.000	0.232
WNW	0.000	0.139	0.185	0.046	0.000	0.000	0.000	0.000	0.000	0.371
NW	0.000	0.000	0.325	0.046	0.000	0.000	0.000	0.000	0.000	0.371
NNW	0.000	0.139	0.417	0.046	0.000	0.000	0.000	0.000	0.000	0.603
SUBTOTAL	0.000	1.715	5.378	3.755	0.278	0.000	0.000	0.000	0.000	11.127

TOTAL HOURS OF VALID STABILITY OBSERVATIONS

2188

TOTAL HOURS OF STABILITY CLASS F

241

TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS F

240

TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS

2157

TOTAL HOURS CALM

0

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant

STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS

WIND SPEED AND DIRECTION MEASURED AT 10.50 METER LEVEL

DATE PRINTED: 2002/12/03

MEAN WIND SPEED = 2.89

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS G (DELTA T > 4.0 C/100 M)

Browns Ferry Nuclear Plant

JUL 1, 2002 - SEP 30, 2002

WIND DIRECTION	WIND SPEED (MPH)									TQTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.371	0.881	0.278	0.000	0.000	0.000	0.000	0.000	1.530
NNE	0.000	0.371	0.695	0.000	0.046	0.000	0.000	0.000	0.000	1.113
NE	0.000	0.510	0.556	0.046	0.000	0.000	0.000	0.000	0.000	1.113
ENE	0.000	0.046	0.649	0.139	0.000	0.000	0.000	0.000	0.000	0.834
E	0.000	0.046	0.325	0.046	0.000	0.000	0.000	0.000	0.000	0.417
ESE	0.000	0.000	0.093	0.000	0.000	0.000	0.000	0.000	0.000	0.093
SE	0.000	0.046	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.046
SSE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
S	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SSW	0.000	0.000	0.046	0.000	0.000	0.000	0.000	0.000	0.000	0.046
SW	0.000	0.093	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.093
WSW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
W	0.000	0.046	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.046
WNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NNW	0.000	0.325	0.371	0.139	0.000	0.000	0.000	0.000	0.000	0.834
SUBTOTAL	0.000	1.854	3.616	0.649	0.046	0.000	0.000	0.000	0.000	6.166

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2188
TOTAL HOURS OF STABILITY CLASS G	135
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS G	133
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2157
TOTAL HOURS CALM	0

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant  
 STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
 WIND SPEED AND DIRECTION MEASURED AT 10.50 METER LEVEL

DATE PRINTED: 2002/12/03

MEAN WIND SPEED = 2.14

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

RADIOLOGICAL IMPACT ASSESSMENT  
BROWNS FERRY NUCLEAR PLANT  
JANUARY - DECEMBER 2002

TABLE 13

JOINT FREQUENCY DISTRIBUTION IN PERCENT  
FOR GROUND LEVEL RELEASES  
FOURTH QUARTER

JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS A (DELTA T<=-1.9 C/100 M)

Browns Ferry Nuclear Plant

OCT 1, 2002 - DEC 31, 2002

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.000	0.000	0.000	0.046	0.046	0.000	0.000	0.092
NNE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ENE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
E	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ESE	0.000	0.000	0.046	0.092	0.000	0.000	0.000	0.000	0.000	0.139
SE	0.000	0.000	0.000	0.416	0.000	0.000	0.000	0.000	0.000	0.416
SSE	0.000	0.000	0.139	0.139	0.000	0.000	0.000	0.000	0.000	0.277
S	0.000	0.000	0.277	0.462	0.000	0.000	0.000	0.000	0.000	0.740
SSW	0.000	0.000	0.000	0.185	0.000	0.000	0.000	0.000	0.000	0.185
SW	0.000	0.000	0.000	0.046	0.000	0.000	0.000	0.000	0.000	0.046
WSW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
W	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NW	0.000	0.000	0.000	0.000	0.000	0.046	0.046	0.000	0.000	0.092
NNW	0.000	0.000	0.000	0.000	0.000	0.000	0.046	0.000	0.000	0.046
SUBTOTAL	0.000	0.000	0.462	1.341	0.000	0.092	0.139	0.000	0.000	2.034

TOTAL HOURS OF VALID STABILITY OBSERVATIONS

2172

TOTAL HOURS OF STABILITY CLASS A

44

TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS A

44

TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS

2163

TOTAL HOURS CALM

0

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant

STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS

WIND SPEED AND DIRECTION MEASURED AT 10.50 METER LEVEL

DATE PRINTED: 2003/02/07

MEAN WIND SPEED = 4.86

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

## JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS B (-1.9&lt; DELTA T&lt;=-1.7 C/100 M)

Browns Ferry Nuclear Plant

OCT 1, 2002 - DEC 31, 2002

WIND DIRECTION	CALM	0.6-1.4	1.5-3.4	WIND SPEED (MPH)							TOTAL
				3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5		
N	0.000	0.000	0.000	0.000	0.000	0.139	0.046	0.000	0.000		0.185
NNE	0.000	0.000	0.000	0.000	0.092	0.000	0.000	0.000	0.000		0.092
NE	0.000	0.000	0.000	0.000	0.000	0.046	0.000	0.000	0.000		0.046
ENE	0.000	0.000	0.000	0.046	0.000	0.000	0.000	0.000	0.000		0.046
E	0.000	0.000	0.000	0.046	0.000	0.000	0.000	0.000	0.000		0.046
ESE	0.000	0.000	0.000	0.000	0.046	0.000	0.000	0.000	0.000		0.046
SE	0.000	0.000	0.092	0.324	0.000	0.000	0.000	0.000	0.000		0.416
SSE	0.000	0.000	0.185	0.046	0.000	0.000	0.000	0.000	0.000		0.231
S	0.000	0.000	0.185	0.139	0.000	0.000	0.000	0.000	0.000		0.324
SSW	0.000	0.000	0.046	0.092	0.000	0.000	0.000	0.000	0.000		0.139
SW	0.000	0.000	0.046	0.092	0.000	0.000	0.000	0.000	0.000		0.139
WSW	0.000	0.000	0.000	0.000	0.046	0.046	0.000	0.000	0.000		0.092
W	0.000	0.000	0.000	0.000	0.046	0.046	0.000	0.000	0.000		0.092
WNW	0.000	0.000	0.000	0.000	0.000	0.000	0.046	0.000	0.000		0.046
NW	0.000	0.000	0.000	0.000	0.000	0.046	0.092	0.000	0.000		0.139
NNW	0.000	0.000	0.000	0.000	0.092	0.139	0.046	0.000	0.000		0.277
SUBTOTAL	0.000	0.000	0.555	0.786	0.324	0.462	0.231	0.000	0.000		2.358

TOTAL HOURS OF VALID STABILITY OBSERVATIONS

2172

TOTAL HOURS OF STABILITY CLASS B

51

TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS B

51

TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS

2163

TOTAL HOURS CALM

0

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant

STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS

WIND SPEED AND DIRECTION MEASURED AT 10.50 METER LEVEL

DATE PRINTED: 2003/02/07

MEAN WIND SPEED = 6.31

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS



## JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS C (-1.7&lt; DELTA T&lt;=-1.5 C/100 M)

Browns Ferry Nuclear Plant

OCT 1, 2002 - DEC 31, 2002

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.000	0.046	0.000	0.185	0.046	0.000	0.000	0.277
NNE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NE	0.000	0.000	0.000	0.000	0.046	0.000	0.000	0.000	0.000	0.046
ENE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
E	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ESE	0.000	0.000	0.000	0.185	0.000	0.000	0.000	0.000	0.000	0.185
SE	0.000	0.000	0.139	0.046	0.000	0.000	0.000	0.000	0.000	0.185
SSE	0.000	0.000	0.185	0.046	0.000	0.000	0.000	0.000	0.000	0.231
S	0.000	0.000	0.139	0.092	0.000	0.000	0.000	0.000	0.000	0.231
SSW	0.000	0.000	0.185	0.185	0.000	0.000	0.000	0.000	0.000	0.370
SW	0.000	0.000	0.000	0.046	0.000	0.000	0.000	0.000	0.000	0.046
WSW	0.000	0.000	0.046	0.092	0.046	0.046	0.000	0.000	0.000	0.231
W	0.000	0.000	0.000	0.000	0.046	0.000	0.046	0.000	0.000	0.092
WNW	0.000	0.000	0.000	0.092	0.046	0.185	0.139	0.000	0.000	0.462
NW	0.000	0.000	0.000	0.000	0.231	0.185	0.139	0.000	0.000	0.555
NNW	0.000	0.000	0.000	0.092	0.000	0.370	0.046	0.000	0.000	0.509
SUBTOTAL	0.000	0.000	0.693	0.925	0.416	0.971	0.416	0.000	0.000	3.421

TOTAL HOURS OF VALID STABILITY OBSERVATIONS

2172

TOTAL HOURS OF STABILITY CLASS C

74

TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS C

74

TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS

2163

TOTAL HOURS CALM

0

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant

STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS

WIND SPEED AND DIRECTION MEASURED AT 10.50 METER LEVEL

MEAN WIND SPEED = 7.06

DATE PRINTED: 2003/02/07

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR  
STABILITY CLASS D (-1.5< DELTA T<=-0.5 C/100 M)

Browns Ferry Nuclear Plant

OCT 1, 2002 - DEC 31, 2002

WIND DIRECTION	WIND SPEED(MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.647	1.341	1.017	0.555	0.000	0.000	0.000	3.560
NNE	0.000	0.000	0.277	1.248	1.017	0.693	0.092	0.000	0.000	3.329
NE	0.000	0.046	0.462	1.156	0.462	0.324	0.139	0.000	0.000	2.589
ENE	0.000	0.000	0.740	0.370	0.324	0.046	0.046	0.000	0.000	1.526
E	0.000	0.000	0.925	1.248	0.046	0.092	0.000	0.000	0.000	2.312
ESE	0.000	0.000	0.647	1.942	1.526	0.277	0.046	0.000	0.000	4.438
SE	0.000	0.046	1.526	0.555	0.185	0.185	0.000	0.000	0.000	2.497
SSE	0.000	0.046	1.757	0.693	0.046	0.046	0.000	0.000	0.000	2.589
S	0.000	0.046	1.479	0.370	0.046	0.000	0.000	0.000	0.000	1.942
SSW	0.000	0.046	0.647	0.092	0.092	0.000	0.000	0.000	0.000	0.878
SW	0.000	0.092	0.555	0.324	0.000	0.000	0.000	0.000	0.000	0.971
WSW	0.000	0.000	0.416	0.277	0.231	0.277	0.000	0.000	0.000	1.202
W	0.000	0.000	0.462	0.555	0.832	0.971	0.231	0.000	0.000	3.051
WNW	0.000	0.000	0.185	0.832	0.878	1.248	1.110	0.046	0.000	4.300
NW	0.000	0.000	0.277	1.248	0.509	1.849	1.063	0.046	0.000	4.993
NNW	0.000	0.092	0.370	1.110	1.202	3.282	0.370	0.000	0.000	6.426
SUBTOTAL	0.000	0.416	11.373	13.361	8.414	9.847	3.098	0.092	0.000	46.602

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2172
TOTAL HOURS OF STABILITY CLASS D	1013
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS D	1008
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2163
TOTAL HOURS CALM	0

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant  
STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
WIND SPEED AND DIRECTION MEASURED AT 10.50 METER LEVEL

MEAN WIND SPEED = 6.05

DATE PRINTED: 2003/02/01

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS E (-0.5< DELTA T<= 1.5 C/100 M)

Browns Ferry Nuclear Plant

OCT 1, 2002 - DEC 31, 2002

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.046	0.509	0.878	0.462	0.185	0.000	0.000	0.000	2.080
NNE	0.000	0.092	0.601	0.370	0.277	0.000	0.000	0.000	0.000	1.341
NE	0.000	0.046	0.370	0.092	0.185	0.000	0.000	0.000	0.000	0.693
ENE	0.000	0.185	0.509	0.277	0.046	0.092	0.000	0.000	0.000	1.110
E	0.000	0.046	0.740	0.370	0.000	0.000	0.000	0.000	0.000	1.156
ESE	0.000	0.185	1.063	0.509	0.416	0.185	0.000	0.000	0.000	2.358
SE	0.000	0.324	0.878	0.324	0.324	0.231	0.000	0.000	0.000	2.080
SSE	0.000	0.139	1.618	0.647	0.509	0.000	0.000	0.000	0.000	2.913
S	0.000	0.139	1.711	0.878	0.647	0.462	0.000	0.000	0.000	3.837
SSW	0.000	0.139	0.370	0.509	0.092	0.231	0.000	0.000	0.000	1.341
SW	0.000	0.000	0.555	0.092	0.000	0.000	0.000	0.000	0.000	0.647
WSW	0.000	0.185	0.509	0.370	0.370	0.046	0.000	0.000	0.000	1.479
W	0.000	0.046	0.277	0.231	0.139	0.046	0.000	0.000	0.000	0.740
WNW	0.000	0.092	0.139	0.092	0.139	0.000	0.000	0.000	0.000	0.462
NW	0.000	0.092	0.324	0.231	0.185	0.092	0.092	0.000	0.000	1.017
NNW	0.000	0.139	0.647	0.878	0.509	0.324	0.046	0.000	0.000	2.543
SUBTOTAL	0.000	1.896	10.818	6.750	4.300	1.896	0.139	0.000	0.000	25.798

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2172
TOTAL HOURS OF STABILITY CLASS E	561
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS E	558
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2163
TOTAL HOURS CALM	0

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant  
 STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
 WIND SPEED AND DIRECTION MEASURED AT 10.50 METER LEVEL

DATE PRINTED: 2003/02/07

MEAN WIND SPEED = 4.01

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS F ( 1.5< DELTA T<= 4.0 C/100 M)

Browns Ferry Nuclear Plant

OCT 1, 2002 - DEC 31, 2002

WIND DIRECTION	WIND SPEED(MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.046	1.063	0.971	0.000	0.000	0.000	0.000	0.000	2.080
NNE	0.000	0.185	0.416	0.277	0.000	0.000	0.000	0.000	0.000	0.878
NE	0.000	0.092	0.277	0.000	0.000	0.000	0.000	0.000	0.000	0.370
ENE	0.000	0.000	0.231	0.046	0.000	0.000	0.000	0.000	0.000	0.277
E	0.000	0.092	0.740	0.231	0.000	0.000	0.000	0.000	0.000	1.063
ESE	0.000	0.092	0.555	0.000	0.000	0.000	0.000	0.000	0.000	0.647
SE	0.000	0.277	0.740	0.324	0.092	0.000	0.000	0.000	0.000	1.433
SSE	0.000	0.231	1.341	0.370	0.046	0.046	0.000	0.000	0.000	2.034
S	0.000	0.046	0.786	0.416	0.231	0.139	0.000	0.000	0.000	1.618
SSW	0.000	0.092	0.324	0.000	0.000	0.000	0.000	0.000	0.000	0.416
SW	0.000	0.046	0.185	0.000	0.000	0.000	0.000	0.000	0.000	0.231
WSW	0.000	0.139	0.092	0.000	0.000	0.000	0.000	0.000	0.000	0.231
W	0.000	0.000	0.092	0.000	0.000	0.000	0.000	0.000	0.000	0.092
WNW	0.000	0.046	0.046	0.000	0.000	0.000	0.000	0.000	0.000	0.092
NW	0.000	0.000	0.092	0.000	0.046	0.000	0.000	0.000	0.000	0.139
NNW	0.000	0.046	0.601	0.416	0.046	0.092	0.000	0.000	0.000	1.202
SUBTOTAL	0.000	1.433	7.582	3.051	0.462	0.277	0.000	0.000	0.000	12.806

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2172
TOTAL HOURS OF STABILITY CLASS F	278
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS F	277
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2163
TOTAL HOURS CALM	0

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant  
 STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
 WIND SPEED AND DIRECTION MEASURED AT 10.50 METER LEVEL

DATE PRINTED: 2003/02/07

MEAN WIND SPEED = 2.90

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS G (DELTA T > 4.0 C/100 M)

Browns Ferry Nuclear Plant

OCT 1, 2002 - DEC 31, 2002

WIND DIRECTION	WIND SPEED (MPH)									TOTAL ↓
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.509	1.063	0.277	0.000	0.000	0.000	0.000	0.000	1.849
NNE	0.000	0.416	0.416	0.000	0.000	0.000	0.000	0.000	0.000	0.832
NE	0.000	0.139	0.462	0.000	0.000	0.000	0.000	0.000	0.000	0.601
ENE	0.000	0.046	0.509	0.000	0.000	0.000	0.000	0.000	0.000	0.555
E	0.000	0.092	0.092	0.000	0.000	0.000	0.000	0.000	0.000	0.185
ESE	0.000	0.231	0.139	0.000	0.000	0.000	0.000	0.000	0.000	0.370
SE	0.000	0.092	0.139	0.000	0.000	0.000	0.000	0.000	0.000	0.231
SSE	0.000	0.185	1.063	0.092	0.000	0.000	0.000	0.000	0.000	1.341
S	0.000	0.185	0.139	0.000	0.046	0.000	0.000	0.000	0.000	0.370
SSW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WSW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
W	0.000	0.046	0.046	0.000	0.000	0.000	0.000	0.000	0.000	0.092
WNW	0.000	0.046	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.046
NW	0.000	0.092	0.046	0.000	0.000	0.000	0.000	0.000	0.000	0.139
NNW	0.000	0.092	0.277	0.000	0.000	0.000	0.000	0.000	0.000	0.370
SUBTOTAL	0.000	2.173	4.392	0.370	0.046	0.000	0.000	0.000	0.000	6.981

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2172
TOTAL HOURS OF STABILITY CLASS G	151
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS G	151
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2163
TOTAL HOURS CALM	0

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant  
 STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
 WIND SPEED AND DIRECTION MEASURED AT 10.50 METER LEVEL

DATE PRINTED: 2003/02/07

MEAN WIND SPEED = 2.03

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

RADIOLOGICAL IMPACT ASSESSMENT  
BROWNS FERRY NUCLEAR PLANT  
JANUARY - DECEMBER 2002

TABLE 14

JOINT FREQUENCY DISTRIBUTION IN PERCENT  
FOR SPLIT LEVEL RELEASES  
(GROUND LEVEL PORTION)  
FIRST QUARTER

SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS A (DELTA T<=-1.9 C/100 M)

Browns Ferry Nuclear Plant

PART 1 OF 2 GROUND LEVEL RELEASE MODE

JAN 1, 2002 - MAR 31, 2002

WIND DIRECTION	WIND SPEED(MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.000	0.000	0.019	0.078	0.034	0.000	0.000	0.130
NNE	0.000	0.000	0.000	0.000	0.010	0.051	0.019	0.000	0.000	0.080
NE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ENE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
E	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ESE	0.000	0.000	0.000	0.000	0.000	0.017	0.000	0.000	0.000	0.017
SE	0.000	0.000	0.000	0.059	0.070	0.000	0.000	0.000	0.000	0.129
SSE	0.000	0.000	0.000	0.033	0.008	0.000	0.000	0.000	0.000	0.041
S	0.000	0.000	0.000	0.070	0.072	0.000	0.000	0.000	0.000	0.142
SSW	0.000	0.000	0.009	0.047	0.018	0.000	0.000	0.000	0.000	0.075
SW	0.000	0.000	0.000	0.000	0.007	0.000	0.000	0.000	0.000	0.007
WSW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
W	0.000	0.000	0.000	0.000	0.015	0.018	0.011	0.000	0.000	0.043
WNW	0.000	0.000	0.000	0.000	0.004	0.087	0.054	0.000	0.000	0.145
NW	0.000	0.000	0.000	0.000	0.002	0.122	0.037	0.000	0.000	0.162
NNW	0.000	0.000	0.000	0.000	0.014	0.117	0.124	0.000	0.000	0.255
SUBTOTAL	0.000	0.000	0.009	0.209	0.240	0.490	0.279	0.000	0.000	1.227

TOTAL HOURS OF VALID OBSERVATIONS 2108.000

TOTAL HOURS OF GROUND LEVEL RELEASE 310.980

TOTAL HOURS OF STABILITY CLASS A 25.860

TOTAL HOURS OF GROUND LEVEL STABILITY CLASS A 25.860

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant

STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS

WIND DIRECTION MEASURED AT 10.50 METER LEVEL

WIND SPEED MEASURED AT 10.50 METER LEVEL

EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2002/05/15

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS B (-1.9< DELTA T<=-1.7 C/100 M)

Browns Ferry Nuclear Plant

PART 1 OF 2 GROUND LEVEL RELEASE MODE

JAN 1, 2002 - MAR 31, 2002

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.000	0.000	0.006	0.022	0.000	0.000	0.000	0.028
NNE	0.000	0.000	0.000	0.000	0.040	0.011	0.000	0.000	0.000	0.051
NE	0.000	0.000	0.000	0.000	0.000	0.007	0.000	0.000	0.000	0.007
ENE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
E	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ESE	0.000	0.000	0.000	0.000	0.009	0.000	0.000	0.000	0.000	0.009
SE	0.000	0.000	0.001	0.011	0.009	0.000	0.000	0.000	0.000	0.022
SSE	0.000	0.000	0.001	0.006	0.000	0.000	0.000	0.000	0.000	0.007
S	0.000	0.000	0.000	0.000	0.009	0.016	0.000	0.000	0.000	0.025
SSW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WSW	0.000	0.000	0.000	0.002	0.007	0.000	0.000	0.000	0.000	0.009
W	0.000	0.000	0.000	0.000	0.000	0.009	0.009	0.000	0.000	0.018
WNW	0.000	0.000	0.000	0.000	0.009	0.027	0.096	0.000	0.000	0.131
NW	0.000	0.000	0.000	0.000	0.000	0.037	0.043	0.000	0.000	0.080
NNW	0.000	0.000	0.000	0.000	0.000	0.031	0.000	0.000	0.000	0.031
SUBTOTAL	0.000	0.000	0.003	0.019	0.087	0.160	0.148	0.000	0.000	0.418

TOTAL HOURS OF VALID OBSERVATIONS	2108.000
TOTAL HOURS OF GROUND LEVEL RELEASE	310.980
TOTAL HOURS OF STABILITY CLASS B	8.810
TOTAL HOURS OF GROUND LEVEL STABILITY CLASS B	8.810

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant  
 STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
 WIND DIRECTION MEASURED AT 10.50 METER LEVEL  
 WIND SPEED MEASURED AT 10.50 METER LEVEL  
 EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2002/05/15

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS



SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS C (-1.7< DELTA T<=-1.5 C/100 M)

Browns Ferry Nuclear Plant

PART 1 OF 2 GROUND LEVEL RELEASE MODE

JAN 1, 2002 - MAR 31, 2002

WIND DIRECTION	WIND SPEED(MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.000	0.000	0.017	0.000	0.000	0.000	0.000	0.017
NNE	0.000	0.000	0.000	0.000	0.027	0.014	0.000	0.000	0.000	0.041
NE	0.000	0.000	0.000	0.000	0.000	0.006	0.000	0.000	0.000	0.006
ENE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
E	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ESE	0.000	0.000	0.000	0.004	0.000	0.000	0.000	0.000	0.000	0.004
SE	0.000	0.000	0.000	0.009	0.007	0.000	0.000	0.000	0.000	0.017
SSE	0.000	0.000	0.000	0.000	0.026	0.000	0.000	0.000	0.000	0.026
S	0.000	0.000	0.000	0.010	0.000	0.000	0.000	0.000	0.000	0.010
SSW	0.000	0.000	0.000	0.010	0.000	0.010	0.000	0.000	0.000	0.020
SW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WSW	0.000	0.000	0.000	0.000	0.000	0.009	0.000	0.000	0.000	0.009
W	0.000	0.000	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.003
WNW	0.000	0.000	0.000	0.000	0.004	0.022	0.062	0.075	0.000	0.163
NW	0.000	0.000	0.000	0.000	0.000	0.037	0.059	0.000	0.000	0.096
NNW	0.000	0.000	0.000	0.001	0.000	0.057	0.019	0.000	0.000	0.077
SUBTOTAL	0.000	0.000	0.000	0.035	0.083	0.155	0.139	0.075	0.000	0.488

TOTAL HOURS OF VALID OBSERVATIONS 2108.000  
 TOTAL HOURS OF GROUND LEVEL RELEASE 310.980  
 TOTAL HOURS OF STABILITY CLASS C 13.020  
 TOTAL HOURS OF GROUND LEVEL STABILITY CLASS C 10.280

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant  
 STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
 WIND DIRECTION MEASURED AT 10.50 METER LEVEL  
 WIND SPEED MEASURED AT 10.50 METER LEVEL  
 EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2002/05/15

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS D (-1.5 < DELTA T <= -0.5 C/100 M)

Browns Ferry Nuclear Plant

PART 1 OF 2 GROUND LEVEL RELEASE MODE

JAN 1, 2002 - MAR 31, 2002

WIND DIRECTION	WIND SPEED(MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.000	0.023	0.082	0.424	0.029	0.047	0.000	0.605
NNE	0.000	0.000	0.000	0.040	0.127	0.126	0.000	0.000	0.000	0.294
NE	0.000	0.000	0.000	0.015	0.064	0.056	0.000	0.000	0.000	0.135
ENE	0.000	0.000	0.001	0.019	0.020	0.000	0.000	0.000	0.000	0.040
E	0.000	0.000	0.000	0.009	0.020	0.009	0.000	0.000	0.000	0.038
ESE	0.000	0.000	0.002	0.014	0.026	0.022	0.000	0.000	0.000	0.065
SE	0.000	0.000	0.010	0.055	0.035	0.126	0.000	0.000	0.000	0.225
SSE	0.000	0.000	0.011	0.080	0.014	0.000	0.000	0.000	0.000	0.104
S	0.000	0.000	0.000	0.027	0.101	0.054	0.000	0.000	0.000	0.181
SSW	0.000	0.000	0.010	0.048	0.000	0.018	0.000	0.000	0.000	0.076
SW	0.000	0.000	0.000	0.019	0.000	0.010	0.000	0.000	0.000	0.029
WSW	0.000	0.000	0.001	0.004	0.023	0.028	0.000	0.000	0.000	0.056
W	0.000	0.000	0.000	0.013	0.058	0.103	0.016	0.000	0.000	0.190
WNW	0.000	0.000	0.000	0.001	0.018	0.126	0.384	0.094	0.000	0.622
NW	0.000	0.000	0.000	0.002	0.042	0.381	0.646	0.097	0.000	1.169
NNW	0.000	0.000	0.000	0.019	0.085	0.363	0.198	0.045	0.000	0.710
SUBTOTAL	0.000	0.000	0.036	0.386	0.713	1.846	1.273	0.284	0.000	4.538

TOTAL HOURS OF VALID OBSERVATIONS 2108.000  
 TOTAL HOURS OF GROUND LEVEL RELEASE 310.980  
 TOTAL HOURS OF STABILITY CLASS D 1007.200  
 TOTAL HOURS OF GROUND LEVEL STABILITY CLASS D 95.660

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant  
 STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
 WIND DIRECTION MEASURED AT 10.50 METER LEVEL  
 WIND SPEED MEASURED AT 10.50 METER LEVEL  
 EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2002/05/15

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS E (-0.5< DELTA T<= 1.5 C/100 M)

Browns Ferry Nuclear Plant

PART 1 OF 2 GROUND LEVEL RELEASE MODE

JAN 1, 2002 - MAR 31, 2002

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.004	0.077	0.064	0.052	0.000	0.000	0.000	0.196
NNE	0.000	0.000	0.003	0.037	0.060	0.027	0.000	0.000	0.000	0.127
NE	0.000	0.000	0.003	0.059	0.036	0.008	0.000	0.000	0.000	0.106
ENE	0.000	0.000	0.000	0.009	0.014	0.000	0.000	0.000	0.000	0.023
E	0.000	0.000	0.021	0.011	0.008	0.000	0.000	0.000	0.000	0.040
ESE	0.000	0.000	0.033	0.038	0.025	0.000	0.000	0.000	0.000	0.096
SE	0.000	0.000	0.068	0.142	0.123	0.047	0.000	0.000	0.000	0.381
SSE	0.000	0.000	0.061	0.319	0.042	0.190	0.000	0.000	0.000	0.611
S	0.000	0.000	0.057	0.348	0.301	0.503	0.000	0.000	0.000	1.210
SSW	0.000	0.000	0.035	0.114	0.044	0.062	0.000	0.000	0.000	0.255
SW	0.000	0.000	0.013	0.005	0.008	0.009	0.000	0.000	0.000	0.035
WSW	0.000	0.000	0.025	0.009	0.000	0.009	0.000	0.000	0.000	0.044
W	0.000	0.000	0.017	0.038	0.063	0.000	0.000	0.000	0.000	0.118
WNW	0.000	0.000	0.000	0.000	0.026	0.040	0.000	0.000	0.000	0.066
NW	0.000	0.000	0.004	0.036	0.050	0.093	0.009	0.000	0.000	0.192
NNW	0.000	0.000	0.002	0.075	0.072	0.049	0.011	0.000	0.000	0.209
SUBTOTAL	0.000	0.000	0.348	1.317	0.935	1.090	0.020	0.000	0.000	3.711

TOTAL HOURS OF VALID OBSERVATIONS 2108.000  
 TOTAL HOURS OF GROUND LEVEL RELEASE 310.980  
 TOTAL HOURS OF STABILITY CLASS E 822.100  
 TOTAL HOURS OF GROUND LEVEL STABILITY CLASS E 78.230

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant  
 STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
 WIND DIRECTION MEASURED AT 10.50 METER LEVEL  
 WIND SPEED MEASURED AT 10.50 METER LEVEL  
 EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2002/05/15.

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS F ( 1.5< DELTA T<= 4.0 C/100 M)

Browns Ferry Nuclear Plant

PART 1 OF 2 GROUND LEVEL RELEASE MODE

JAN 1, 2002 - MAR 31, 2002

WIND DIRECTION	WIND SPEED(MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.035	0.065	0.000	0.000	0.000	0.000	0.000	0.101
NNE	0.000	0.000	0.006	0.049	0.015	0.000	0.000	0.000	0.000	0.070
NE	0.000	0.000	0.006	0.019	0.008	0.000	0.000	0.000	0.000	0.032
ENE	0.000	0.000	0.026	0.013	0.000	0.000	0.000	0.000	0.000	0.039
E	0.000	0.004	0.030	0.063	0.000	0.000	0.000	0.000	0.000	0.097
ESE	0.000	0.000	0.034	0.008	0.000	0.000	0.000	0.000	0.000	0.041
SE	0.000	0.000	0.148	0.093	0.010	0.000	0.000	0.000	0.000	0.251
SSE	0.000	0.010	0.170	0.116	0.158	0.047	0.000	0.000	0.000	0.501
S	0.000	0.004	0.065	0.220	0.229	0.723	0.000	0.000	0.000	1.242
SSW	0.000	0.000	0.025	0.057	0.044	0.010	0.000	0.000	0.000	0.136
SW	0.000	0.000	0.000	0.013	0.000	0.000	0.000	0.000	0.000	0.013
WSW	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
W	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
WNW	0.000	0.000	0.002	0.005	0.000	0.000	0.000	0.000	0.000	0.008
NW	0.000	0.000	0.001	0.009	0.016	0.000	0.000	0.000	0.000	0.027
NNW	0.000	0.000	0.020	0.106	0.015	0.000	0.000	0.000	0.000	0.141
SUBTOTAL	0.000	0.022	0.569	0.835	0.495	0.781	0.000	0.000	0.000	2.702

TOTAL HOURS OF VALID OBSERVATIONS 2108.000  
 TOTAL HOURS OF GROUND LEVEL RELEASE 310.980  
 TOTAL HOURS OF STABILITY CLASS F 159.840  
 TOTAL HOURS OF GROUND LEVEL STABILITY CLASS F 56.950

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant  
 STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
 WIND DIRECTION MEASURED AT 10.50 METER LEVEL  
 WIND SPEED MEASURED AT 10.50 METER LEVEL  
 EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2002/05/15

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS G (DELTA T > 4.0 C/100 M)

Browns Ferry Nuclear Plant

PART 1 OF 2 GROUND LEVEL RELEASE MODE

JAN 1, 2002 - MAR 31, 2002

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.009	0.033	0.000	0.000	0.000	0.000	0.000	0.042
NNE	0.000	0.000	0.001	0.011	0.000	0.000	0.000	0.000	0.000	0.012
NE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ENE	0.000	0.000	0.015	0.000	0.000	0.000	0.000	0.000	0.000	0.015
E	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.003
ESE	0.000	0.010	0.002	0.007	0.000	0.000	0.000	0.000	0.000	0.019
SE	0.000	0.001	0.122	0.010	0.027	0.000	0.000	0.000	0.000	0.160
SSE	0.000	0.080	0.596	0.240	0.043	0.000	0.000	0.000	0.000	0.959
S	0.000	0.005	0.175	0.132	0.103	0.000	0.000	0.000	0.000	0.416
SSW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WSW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
W	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NNW	0.000	0.000	0.022	0.012	0.009	0.000	0.000	0.000	0.000	0.043
SUBTOTAL	0.000	0.096	0.947	0.444	0.182	0.000	0.000	0.000	0.000	1.669

TOTAL HOURS OF VALID OBSERVATIONS 2108.000  
 TOTAL HOURS OF GROUND LEVEL RELEASE 310.980  
 TOTAL HOURS OF STABILITY CLASS G 71.170  
 TOTAL HOURS OF GROUND LEVEL STABILITY CLASS G 35.190

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant  
 STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
 WIND DIRECTION MEASURED AT 10.50 METER LEVEL  
 WIND SPEED MEASURED AT 10.50 METER LEVEL  
 EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2002/05/15

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

RADIOLOGICAL IMPACT ASSESSMENT  
BROWNS FERRY NUCLEAR PLANT  
JANUARY - DECEMBER 2002

TABLE 15

JOINT FREQUENCY DISTRIBUTION IN PERCENT  
FOR SPLIT LEVEL RELEASES  
(GROUND LEVEL PORTION)  
SECOND QUARTER

SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR  
STABILITY CLASS A (DELTA T<=-1.9 C/100 M)

Browns Ferry Nuclear Plant

PART 1 OF 2 GROUND LEVEL RELEASE MODE

APR 1, 2002 - JUN 30, 2002

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.000	0.000	0.013	0.286	0.016	0.000	0.000	0.315
NNE	0.000	0.000	0.000	0.000	0.012	0.113	0.000	0.000	0.000	0.124
NE	0.000	0.000	0.000	0.000	0.000	0.000	0.009	0.000	0.000	0.009
ENE	0.000	0.000	0.000	0.000	0.004	0.000	0.000	0.000	0.000	0.004
E	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ESE	0.000	0.000	0.000	0.055	0.166	0.071	0.000	0.000	0.000	0.292
SE	0.000	0.000	0.028	0.213	0.078	0.022	0.000	0.000	0.000	0.341
SSE	0.000	0.000	0.053	0.043	0.047	0.000	0.000	0.000	0.000	0.143
S	0.000	0.000	0.094	0.147	0.000	0.000	0.000	0.000	0.000	0.241
SSW	0.000	0.000	0.007	0.144	0.000	0.000	0.000	0.000	0.000	0.151
SW	0.000	0.000	0.000	0.024	0.000	0.000	0.000	0.000	0.000	0.024
WSW	0.000	0.000	0.000	0.017	0.000	0.009	0.000	0.000	0.000	0.025
W	0.000	0.000	0.000	0.003	0.002	0.000	0.000	0.000	0.000	0.005
WNW	0.000	0.000	0.000	0.000	0.004	0.043	0.026	0.000	0.000	0.073
NW	0.000	0.000	0.000	0.000	0.007	0.070	0.031	0.032	0.000	0.139
NNW	0.000	0.000	0.000	0.000	0.005	0.046	0.028	0.000	0.000	0.079
SUBTOTAL	0.000	0.000	0.183	0.646	0.338	0.658	0.111	0.032	0.000	1.967

TOTAL HOURS OF VALID OBSERVATIONS	2114.000
TOTAL HOURS OF GROUND LEVEL RELEASE	231.920
TOTAL HOURS OF STABILITY CLASS A	41.580
TOTAL HOURS OF GROUND LEVEL STABILITY CLASS A	41.580

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant  
STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
WIND DIRECTION MEASURED AT 10.50 METER LEVEL  
WIND SPEED MEASURED AT 10.50 METER LEVEL  
EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2002/08/06

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS B (-1.9< DELTA T<=-1.7 C/100 M)

Browns Ferry Nuclear Plant

PART 1 OF 2 GROUND LEVEL RELEASE MODE

APR 1, 2002 - JUN 30, 2002

WIND DIRECTION	WIND SPEED(MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.000	0.000	0.000	0.036	0.000	0.000	0.000	0.036
NNE	0.000	0.000	0.000	0.000	0.008	0.029	0.010	0.000	0.000	0.047
NE	0.000	0.000	0.000	0.000	0.000	0.026	0.000	0.000	0.000	0.026
ENE	0.000	0.000	0.000	0.000	0.004	0.000	0.000	0.000	0.000	0.004
E	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ESE	0.000	0.000	0.000	0.034	0.014	0.000	0.000	0.000	0.000	0.048
SE	0.000	0.000	0.013	0.016	0.018	0.000	0.000	0.000	0.000	0.046
SSE	0.000	0.000	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.009
S	0.000	0.000	0.006	0.032	0.010	0.000	0.000	0.000	0.000	0.048
SSW	0.000	0.000	0.005	0.029	0.000	0.000	0.000	0.000	0.000	0.034
SW	0.000	0.000	0.007	0.023	0.000	0.000	0.000	0.000	0.000	0.030
WSW	0.000	0.000	0.000	0.028	0.000	0.009	0.000	0.000	0.000	0.038
W	0.000	0.000	0.000	0.002	0.000	0.009	0.000	0.000	0.000	0.011
WNW	0.000	0.000	0.000	0.000	0.001	0.006	0.000	0.000	0.000	0.007
NW	0.000	0.000	0.000	0.000	0.009	0.030	0.024	0.000	0.000	0.064
NNW	0.000	0.000	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.003
SUBTOTAL	0.000	0.000	0.040	0.164	0.067	0.147	0.034	0.000	0.000	0.451

TOTAL HOURS OF VALID OBSERVATIONS 2114.000  
 TOTAL HOURS OF GROUND LEVEL RELEASE 231.920  
 TOTAL HOURS OF STABILITY CLASS B 9.540  
 TOTAL HOURS OF GROUND LEVEL STABILITY CLASS B 9.540

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant  
 STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
 WIND DIRECTION MEASURED AT 10.50 METER LEVEL  
 WIND SPEED MEASURED AT 10.50 METER LEVEL  
 EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2002/08/06

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS



SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS C (-1.7 < DELTA T <= -1.5 C/100 M)

Browns Ferry Nuclear Plant

PART 1 OF 2 GROUND LEVEL RELEASE MODE

APR 1, 2002 - JUN 30, 2002

WIND DIRECTION	CALM	0.6-1.4	1.5-3.4	WIND SPEED(MPH)		7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	TOTAL
				3.5-5.4	5.5-7.4					
N	0.000	0.000	0.000	0.000	0.000	0.038	0.000	0.000	0.000	0.038
NNE	0.000	0.000	0.000	0.000	0.009	0.007	0.000	0.000	0.000	0.015
NE	0.000	0.000	0.000	0.000	0.000	0.023	0.000	0.000	0.000	0.023
ENE	0.000	0.000	0.000	0.001	0.011	0.000	0.000	0.000	0.000	0.012
E	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.001
ESE	0.000	0.000	0.004	0.034	0.013	0.023	0.000	0.000	0.000	0.074
SE	0.000	0.000	0.000	0.017	0.008	0.000	0.000	0.000	0.000	0.024
SSE	0.000	0.000	0.015	0.000	0.000	0.000	0.000	0.000	0.000	0.015
S	0.000	0.000	0.022	0.009	0.018	0.000	0.000	0.000	0.000	0.049
SSW	0.000	0.000	0.005	0.041	0.000	0.000	0.000	0.000	0.000	0.046
SW	0.000	0.000	0.005	0.018	0.000	0.000	0.000	0.000	0.000	0.023
WSW	0.000	0.000	0.000	0.004	0.005	0.000	0.000	0.000	0.000	0.009
W	0.000	0.000	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.003
WNW	0.000	0.000	0.000	0.000	0.007	0.008	0.000	0.000	0.000	0.015
NW	0.000	0.000	0.000	0.000	0.014	0.045	0.022	0.000	0.000	0.080
NNW	0.000	0.000	0.000	0.000	0.000	0.016	0.000	0.000	0.000	0.016
SUBTOTAL	0.000	0.000	0.052	0.124	0.087	0.158	0.022	0.000	0.000	0.443

TOTAL HOURS OF VALID OBSERVATIONS 2114.000  
 TOTAL HOURS OF GROUND LEVEL RELEASE 231.920  
 TOTAL HOURS OF STABILITY CLASS C 14.150  
 TOTAL HOURS OF GROUND LEVEL STABILITY CLASS C 9.360

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant  
 STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
 WIND DIRECTION MEASURED AT 10.50 METER LEVEL  
 WIND SPEED MEASURED AT 10.50 METER LEVEL  
 EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2002/08/06

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS D (-1.5< DELTA T<=-0.5 C/100 M)

Browns Ferry Nuclear Plant

PART 1 OF 2 GROUND LEVEL RELEASE MODE

APR 1, 2002 - JUN 30, 2002

WIND DIRECTION	WIND SPEED(MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.000	0.009	0.046	0.163	0.000	0.000	0.000	0.218
NNE	0.000	0.000	0.000	0.020	0.053	0.102	0.000	0.000	0.000	0.175
NE	0.000	0.000	0.000	0.000	0.038	0.019	0.000	0.000	0.000	0.058
ENE	0.000	0.000	0.000	0.009	0.008	0.000	0.000	0.000	0.000	0.018
E	0.000	0.000	0.001	0.038	0.018	0.000	0.000	0.000	0.000	0.056
ESE	0.000	0.000	0.032	0.198	0.232	0.048	0.000	0.000	0.000	0.510
SE	0.000	0.000	0.078	0.180	0.064	0.020	0.000	0.000	0.000	0.342
SSE	0.000	0.000	0.047	0.023	0.022	0.000	0.000	0.000	0.000	0.091
S	0.000	0.000	0.110	0.080	0.053	0.000	0.000	0.000	0.000	0.242
SSW	0.000	0.000	0.098	0.175	0.099	0.000	0.000	0.000	0.000	0.373
SW	0.000	0.000	0.019	0.031	0.000	0.000	0.000	0.000	0.000	0.050
WSW	0.000	0.000	0.010	0.027	0.016	0.053	0.000	0.000	0.000	0.106
W	0.000	0.000	0.000	0.010	0.011	0.009	0.000	0.000	0.000	0.031
WNW	0.000	0.000	0.000	0.000	0.012	0.038	0.000	0.043	0.000	0.093
NW	0.000	0.000	0.000	0.004	0.051	0.115	0.019	0.000	0.000	0.189
NNW	0.000	0.000	0.000	0.012	0.022	0.117	0.153	0.000	0.000	0.305
SUBTOTAL	0.000	0.000	0.396	0.818	0.744	0.684	0.172	0.043	0.000	2.858

TOTAL HOURS OF VALID OBSERVATIONS 2114.000  
 TOTAL HOURS OF GROUND LEVEL RELEASE 231.920  
 TOTAL HOURS OF STABILITY CLASS D 1073.710  
 TOTAL HOURS OF GROUND LEVEL STABILITY CLASS D 60.410

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant  
 STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
 WIND DIRECTION MEASURED AT 10.50 METER LEVEL  
 WIND SPEED MEASURED AT 10.50 METER LEVEL  
 EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2002/08/06.

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS E (-0.5< DELTA T<= 1.5 C/100 M)

Browns Ferry Nuclear Plant

PART 1 OF 2 GROUND LEVEL RELEASE MODE

APR 1, 2002 - JUN 30, 2002

WIND DIRECTION	CALM	0.6-1.4	1.5-3.4	WIND SPEED(MPH)		7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	TOTAL
				3.5-5.4	5.5-7.4					
N	0.000	0.004	0.015	0.106	0.124	0.062	0.000	0.000	0.000	0.311
NNE	0.000	0.000	0.005	0.049	0.041	0.044	0.000	0.000	0.000	0.139
NE	0.000	0.002	0.015	0.042	0.090	0.043	0.000	0.000	0.000	0.191
ENE	0.000	0.001	0.029	0.057	0.027	0.000	0.000	0.000	0.000	0.114
E	0.000	0.000	0.063	0.242	0.021	0.008	0.000	0.000	0.000	0.334
ESE	0.000	0.007	0.157	0.245	0.076	0.000	0.000	0.000	0.000	0.485
SE	0.000	0.000	0.159	0.072	0.020	0.000	0.000	0.000	0.000	0.252
SSE	0.000	0.002	0.128	0.114	0.221	0.095	0.000	0.000	0.000	0.559
S	0.000	0.008	0.178	0.081	0.060	0.178	0.047	0.000	0.000	0.552
SSW	0.000	0.000	0.064	0.160	0.124	0.035	0.000	0.000	0.000	0.385
SW	0.000	0.000	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.010
WSW	0.000	0.000	0.008	0.018	0.000	0.029	0.000	0.000	0.000	0.056
W	0.000	0.000	0.007	0.030	0.000	0.000	0.000	0.000	0.000	0.037
WNW	0.000	0.000	0.000	0.004	0.004	0.008	0.000	0.000	0.000	0.017
NW	0.000	0.000	0.000	0.021	0.012	0.025	0.000	0.000	0.000	0.059
NNW	0.000	0.000	0.001	0.018	0.037	0.017	0.000	0.000	0.000	0.073
SUBTOTAL	0.000	0.024	0.839	1.260	0.858	0.544	0.047	0.000	0.000	3.571

TOTAL HOURS OF VALID OBSERVATIONS 2114.000  
 TOTAL HOURS OF GROUND LEVEL RELEASE 231.920  
 TOTAL HOURS OF STABILITY CLASS E 741.240  
 TOTAL HOURS OF GROUND LEVEL STABILITY CLASS E 75.500

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant  
 STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
 WIND DIRECTION MEASURED AT 10.50 METER LEVEL  
 WIND SPEED MEASURED AT 10.50 METER LEVEL  
 EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2002/08/06

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS F ( 1.5< DELTA T<= 4.0 C/100 M)

Browns Ferry Nuclear Plant

PART 1 OF 2 GROUND LEVEL RELEASE MODE

APR 1, 2002 - JUN 30, 2002

WIND DIRECTION	WIND SPEED(MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.004	0.018	0.049	0.016	0.000	0.000	0.000	0.000	0.088
NNE	0.000	0.000	0.008	0.092	0.016	0.000	0.000	0.000	0.000	0.115
NE	0.000	0.013	0.034	0.020	0.024	0.000	0.000	0.000	0.000	0.091
ENE	0.000	0.005	0.032	0.017	0.016	0.000	0.000	0.000	0.000	0.070
E	0.000	0.010	0.049	0.070	0.009	0.000	0.000	0.000	0.000	0.137
ESE	0.000	0.000	0.042	0.016	0.000	0.000	0.000	0.000	0.000	0.058
SE	0.000	0.035	0.070	0.014	0.000	0.000	0.000	0.000	0.000	0.118
SSE	0.000	0.027	0.033	0.063	0.069	0.095	0.000	0.000	0.000	0.288
S	0.000	0.000	0.073	0.054	0.000	0.000	0.000	0.000	0.000	0.128
SSW	0.000	0.001	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.021
SW	0.000	0.009	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.010
WSW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
W	0.000	0.003	0.003	0.002	0.000	0.000	0.000	0.000	0.000	0.008
WNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NW	0.000	0.000	0.000	0.011	0.000	0.000	0.000	0.000	0.000	0.011
NNW	0.000	0.000	0.011	0.024	0.015	0.000	0.000	0.000	0.000	0.050
SUBTOTAL	0.000	0.108	0.393	0.432	0.165	0.095	0.000	0.000	0.000	1.192

TOTAL HOURS OF VALID OBSERVATIONS 2114.000  
 TOTAL HOURS OF GROUND LEVEL RELEASE 231.920  
 TOTAL HOURS OF STABILITY CLASS F 207.340  
 TOTAL HOURS OF GROUND LEVEL STABILITY CLASS F 25.200

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant  
 STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
 WIND DIRECTION MEASURED AT 10.50 METER LEVEL  
 WIND SPEED MEASURED AT 10.50 METER LEVEL  
 EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2002/08/06

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS G (DELTA T > 4.0 C/100 M)

Browns Ferry Nuclear Plant

PART 1 OF 2 GROUND LEVEL RELEASE MODE

APR 1, 2002 - JUN 30, 2002

WIND DIRECTION	CALM	0.6-1.4	1.5-3.4	WIND SPEED (MPH)		7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	TOTAL
				3.5-5.4	5.5-7.4					
N	0.000	0.000	0.056	0.039	0.000	0.000	0.000	0.000	0.000	0.095
NNE	0.000	0.003	0.019	0.018	0.000	0.000	0.000	0.000	0.000	0.041
NE	0.000	0.004	0.017	0.000	0.000	0.000	0.000	0.000	0.000	0.021
ENE	0.000	0.020	0.028	0.011	0.000	0.000	0.000	0.000	0.000	0.059
E	0.000	0.024	0.010	0.005	0.000	0.000	0.000	0.000	0.000	0.039
ESE	0.000	0.014	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.020
SE	0.000	0.035	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.041
SSE	0.000	0.037	0.027	0.032	0.000	0.000	0.000	0.000	0.000	0.096
S	0.000	0.000	0.027	0.017	0.000	0.000	0.000	0.000	0.000	0.044
SSW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SW	0.000	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.006
WSW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
W	0.000	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.006
WNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NW	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.003
NNW	0.000	0.000	0.019	0.000	0.000	0.000	0.000	0.000	0.000	0.019
SUBTOTAL	0.000	0.149	0.219	0.122	0.000	0.000	0.000	0.000	0.000	0.489

TOTAL HOURS OF VALID OBSERVATIONS 2114.000  
 TOTAL HOURS OF GROUND LEVEL RELEASE 231.920  
 TOTAL HOURS OF STABILITY CLASS G 26.440  
 TOTAL HOURS OF GROUND LEVEL STABILITY CLASS G 10.330

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant  
 STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
 WIND DIRECTION MEASURED AT 10.50 METER LEVEL  
 WIND SPEED MEASURED AT 10.50 METER LEVEL  
 EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2002/08/06

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

RADIOLOGICAL IMPACT ASSESSMENT  
BROWNS FERRY NUCLEAR PLANT  
JANUARY - DECEMBER 2002

TABLE 16

JOINT FREQUENCY DISTRIBUTION IN PERCENT  
FOR SPLIT LEVEL RELEASES  
(GROUND LEVEL PORTION)  
THIRD QUARTER

SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS A (DELTA T<=-1.9 C/100 M)

Browns Ferry Nuclear Plant

PART 1 OF 2 GROUND LEVEL RELEASE MODE

JUL 1, 2002 - SEP 30, 2002

WIND DIRECTION	CALM	0.6-1.4	1.5-3.4	WIND SPEED(MPH)		7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	TOTAL
				3.5-5.4	5.5-7.4					
N	0.000	0.000	0.000	0.000	0.000	0.031	0.000	0.000	0.000	0.031
NNE	0.000	0.000	0.000	0.000	0.000	0.025	0.000	0.000	0.000	0.025
NE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ENE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
E	0.000	0.000	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.003
ESE	0.000	0.000	0.000	0.035	0.064	0.000	0.000	0.000	0.000	0.098
SE	0.000	0.000	0.024	0.118	0.007	0.000	0.000	0.000	0.000	0.149
SSE	0.000	0.000	0.045	0.098	0.000	0.000	0.000	0.000	0.000	0.143
S	0.000	0.000	0.057	0.078	0.000	0.000	0.000	0.000	0.000	0.135
SSW	0.000	0.000	0.031	0.062	0.000	0.000	0.000	0.000	0.000	0.093
SW	0.000	0.000	0.003	0.027	0.009	0.000	0.000	0.000	0.000	0.039
WSW	0.000	0.000	0.000	0.016	0.005	0.000	0.000	0.000	0.000	0.021
W	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NNW	0.000	0.000	0.000	0.000	0.000	0.008	0.000	0.000	0.000	0.008
SUBTOTAL	0.000	0.000	0.159	0.435	0.087	0.064	0.000	0.000	0.000	0.745

TOTAL HOURS OF VALID OBSERVATIONS 2156.000  
 TOTAL HOURS OF GROUND LEVEL RELEASE 139.510  
 TOTAL HOURS OF STABILITY CLASS A 18.920  
 TOTAL HOURS OF GROUND LEVEL STABILITY CLASS A 16.060

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant  
 STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
 WIND DIRECTION MEASURED AT 10.50 METER LEVEL  
 WIND SPEED MEASURED AT 10.50 METER LEVEL  
 EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2002/12/03

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS B (-1.9< DELTA T<=-1.7 C/100 M)

Browns Ferry Nuclear Plant

PART 1 OF 2 GROUND LEVEL RELEASE MODE

JUL 1, 2002 - SEP 30, 2002

WIND DIRECTION	CALM	0.6-1.4	1.5-3.4	WIND SPEED(MPH)		7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	TOTAL
				3.5-5.4	5.5-7.4					
N	0.000	0.000	0.000	0.000	0.000	0.007	0.000	0.000	0.000	0.007
NNE	0.000	0.000	0.000	0.000	0.000	0.052	0.000	0.000	0.000	0.052
NE	0.000	0.000	0.000	0.000	0.000	0.005	0.000	0.000	0.000	0.005
ENE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
E	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.001
ESE	0.000	0.000	0.006	0.017	0.013	0.000	0.000	0.000	0.000	0.036
SE	0.000	0.000	0.008	0.010	0.000	0.000	0.000	0.000	0.000	0.018
SSE	0.000	0.000	0.030	0.003	0.000	0.000	0.000	0.000	0.000	0.033
S	0.000	0.000	0.000	0.009	0.000	0.000	0.000	0.000	0.000	0.010
SSW	0.000	0.000	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.008
SW	0.000	0.000	0.004	0.007	0.000	0.000	0.000	0.000	0.000	0.011
WSW	0.000	0.000	0.000	0.005	0.000	0.000	0.000	0.000	0.000	0.005
W	0.000	0.000	0.000	0.002	0.004	0.000	0.000	0.000	0.000	0.006
WNW	0.000	0.000	0.000	0.000	0.006	0.010	0.000	0.000	0.000	0.017
NW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NNW	0.000	0.000	0.000	0.000	0.005	0.007	0.000	0.000	0.000	0.012
SUBTOTAL	0.000	0.000	0.058	0.053	0.028	0.082	0.000	0.000	0.000	0.221

TOTAL HOURS OF VALID OBSERVATIONS 2156.000  
 TOTAL HOURS OF GROUND LEVEL RELEASE 139.510  
 TOTAL HOURS OF STABILITY CLASS B 9.590  
 TOTAL HOURS OF GROUND LEVEL STABILITY CLASS B 4.760

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant  
 STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
 WIND DIRECTION MEASURED AT 10.50 METER LEVEL  
 WIND SPEED MEASURED AT 10.50 METER LEVEL  
 EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2002/12/03

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS



SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR  
STABILITY CLASS C (-1.7< DELTA T<=-1.5 C/100 M)

Browns Ferry Nuclear Plant

PART 1 OF 2 GROUND LEVEL RELEASE MODE

JUL 1, 2002 - SEP 30, 2002

WIND DIRECTION	WIND SPEED(MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.000	0.000	0.000	0.020	0.000	0.000	0.000	0.020
NNE	0.000	0.000	0.000	0.003	0.008	0.035	0.000	0.000	0.000	0.046
NE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ENE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
E	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ESE	0.000	0.000	0.000	0.015	0.006	0.000	0.000	0.000	0.000	0.022
SE	0.000	0.000	0.032	0.000	0.000	0.000	0.000	0.000	0.000	0.032
SSE	0.000	0.000	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.012
S	0.000	0.000	0.007	0.018	0.000	0.000	0.000	0.000	0.000	0.026
SSW	0.000	0.000	0.011	0.017	0.000	0.000	0.000	0.000	0.000	0.028
SW	0.000	0.000	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.007
WSW	0.000	0.000	0.000	0.002	0.006	0.000	0.000	0.000	0.000	0.008
W	0.000	0.000	0.000	0.002	0.009	0.007	0.000	0.000	0.000	0.019
WNW	0.000	0.000	0.000	0.000	0.011	0.000	0.000	0.000	0.000	0.011
NW	0.000	0.000	0.000	0.000	0.009	0.025	0.000	0.000	0.000	0.034
NNW	0.000	0.000	0.000	0.000	0.008	0.007	0.000	0.000	0.000	0.016
SUBTOTAL	0.000	0.000	0.069	0.058	0.058	0.095	0.000	0.000	0.000	0.279

TOTAL HOURS OF VALID OBSERVATIONS 2156.000  
TOTAL HOURS OF GROUND LEVEL RELEASE 139.510  
TOTAL HOURS OF STABILITY CLASS C 31.740  
TOTAL HOURS OF GROUND LEVEL STABILITY CLASS C 6.020

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant  
STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
WIND DIRECTION MEASURED AT 10.50 METER LEVEL  
WIND SPEED MEASURED AT 10.50 METER LEVEL  
EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2002/12/03

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS D (-1.5< DELTA T<=-0.5 C/100 M)

Browns Ferry Nuclear Plant

PART 1 OF 2 GROUND LEVEL RELEASE MODE

JUL 1, 2002 - SEP 30, 2002

WIND DIRECTION	WIND SPEED(MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.000	0.006	0.079	0.046	0.000	0.000	0.000	0.131
NNE	0.000	0.000	0.000	0.015	0.053	0.107	0.018	0.000	0.000	0.193
NE	0.000	0.000	0.000	0.004	0.014	0.052	0.000	0.000	0.000	0.070
ENE	0.000	0.000	0.000	0.008	0.040	0.038	0.000	0.000	0.000	0.087
E	0.000	0.000	0.000	0.034	0.025	0.046	0.000	0.000	0.000	0.105
ESE	0.000	0.000	0.052	0.296	0.184	0.068	0.000	0.000	0.000	0.600
SE	0.000	0.000	0.078	0.087	0.042	0.000	0.000	0.000	0.000	0.208
SSE	0.000	0.000	0.075	0.028	0.000	0.000	0.000	0.000	0.000	0.103
S	0.000	0.000	0.081	0.053	0.000	0.008	0.000	0.000	0.000	0.142
SSW	0.000	0.000	0.096	0.020	0.006	0.034	0.000	0.000	0.000	0.156
SW	0.000	0.000	0.012	0.008	0.000	0.000	0.000	0.000	0.000	0.020
WSW	0.000	0.000	0.003	0.019	0.006	0.000	0.000	0.000	0.000	0.029
W	0.000	0.000	0.001	0.037	0.023	0.014	0.000	0.000	0.000	0.075
WNW	0.000	0.000	0.000	0.008	0.046	0.058	0.000	0.000	0.000	0.113
NW	0.000	0.000	0.000	0.016	0.032	0.081	0.012	0.000	0.000	0.142
NNW	0.000	0.000	0.000	0.009	0.050	0.068	0.000	0.000	0.000	0.127
SUBTOTAL	0.000	0.000	0.398	0.649	0.602	0.621	0.030	0.000	0.000	2.300

TOTAL HOURS OF VALID OBSERVATIONS 2156.000  
 TOTAL HOURS OF GROUND LEVEL RELEASE 139.510  
 TOTAL HOURS OF STABILITY CLASS D 1182.010  
 TOTAL HOURS OF GROUND LEVEL STABILITY CLASS D 49.580

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant  
 STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
 WIND DIRECTION MEASURED AT 10.50 METER LEVEL  
 WIND SPEED MEASURED AT 10.50 METER LEVEL  
 EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2002/12/03

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS E (-0.5< DELTA T<= 1.5 C/100 M)

Browns Ferry Nuclear Plant

PART 1 OF 2 GROUND LEVEL RELEASE MODE

JUL 1, 2002 - SEP 30, 2002

WIND DIRECTION	WIND SPEED(MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.005	0.022	0.108	0.086	0.015	0.000	0.000	0.000	0.236
NNE	0.000	0.000	0.014	0.078	0.106	0.061	0.000	0.000	0.000	0.258
NE	0.000	0.005	0.014	0.044	0.083	0.035	0.000	0.000	0.000	0.181
ENE	0.000	0.002	0.033	0.060	0.027	0.000	0.000	0.000	0.000	0.122
E	0.000	0.000	0.061	0.201	0.027	0.053	0.000	0.000	0.000	0.342
ESE	0.000	0.000	0.099	0.193	0.023	0.028	0.000	0.000	0.000	0.344
SE	0.000	0.000	0.074	0.023	0.050	0.000	0.000	0.000	0.000	0.146
SSE	0.000	0.001	0.028	0.000	0.000	0.007	0.000	0.000	0.000	0.037
S	0.000	0.001	0.073	0.000	0.045	0.009	0.000	0.000	0.000	0.129
SSW	0.000	0.001	0.055	0.000	0.040	0.035	0.000	0.000	0.000	0.132
SW	0.000	0.011	0.019	0.000	0.000	0.000	0.000	0.000	0.000	0.030
WSW	0.000	0.000	0.000	0.005	0.000	0.000	0.000	0.000	0.000	0.005
W	0.000	0.000	0.002	0.018	0.028	0.015	0.000	0.000	0.000	0.063
WNW	0.000	0.000	0.000	0.000	0.008	0.000	0.000	0.000	0.000	0.008
NW	0.000	0.003	0.003	0.007	0.000	0.000	0.000	0.000	0.000	0.013
NNW	0.000	0.000	0.006	0.036	0.006	0.000	0.000	0.000	0.000	0.048
SUBTOTAL	0.000	0.029	0.503	0.772	0.529	0.260	0.000	0.000	0.000	2.093

TOTAL HOURS OF VALID OBSERVATIONS 2156.000  
 TOTAL HOURS OF GROUND LEVEL RELEASE 139.510  
 TOTAL HOURS OF STABILITY CLASS E 717.040  
 TOTAL HOURS OF GROUND LEVEL STABILITY CLASS E 45.130

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant  
 STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
 WIND DIRECTION MEASURED AT 10.50 METER LEVEL  
 WIND SPEED MEASURED AT 10.50 METER LEVEL  
 EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2002/12/03

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS F ( 1.5< DELTA T<= 4.0 C/100 M)

Browns Ferry Nuclear Plant

PART 1 OF 2 GROUND LEVEL RELEASE MODE

JUL 1, 2002 - SEP 30, 2002

WIND DIRECTION	CALM	0.6-1.4	1.5-3.4	WIND SPEED(MPH)		7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	TOTAL
				3.5-5.4	5.5-7.4					
N	0.000	0.000	0.069	0.121	0.007	0.000	0.000	0.000	0.000	0.197
NNE	0.000	0.002	0.026	0.167	0.031	0.000	0.000	0.000	0.000	0.226
NE	0.000	0.000	0.010	0.026	0.006	0.000	0.000	0.000	0.000	0.042
ENE	0.000	0.000	0.026	0.034	0.000	0.000	0.000	0.000	0.000	0.060
E	0.000	0.000	0.018	0.077	0.000	0.000	0.000	0.000	0.000	0.095
ESE	0.000	0.000	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.005
SE	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.001
SSE	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.001
S	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SSW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SW	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.001
WSW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
W	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.001
WNW	0.000	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.000	0.003
NW	0.000	0.000	0.000	0.005	0.000	0.000	0.000	0.000	0.000	0.005
NNW	0.000	0.000	0.012	0.004	0.000	0.000	0.000	0.000	0.000	0.016
SUBTOTAL	0.000	0.002	0.167	0.439	0.045	0.000	0.000	0.000	0.000	0.653

TOTAL HOURS OF VALID OBSERVATIONS 2156.000  
 TOTAL HOURS OF GROUND LEVEL RELEASE 139.510  
 TOTAL HOURS OF STABILITY CLASS F 180.080  
 TOTAL HOURS OF GROUND LEVEL STABILITY CLASS F 14.070

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant  
 STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
 WIND DIRECTION MEASURED AT 10.50 METER LEVEL  
 WIND SPEED MEASURED AT 10.50 METER LEVEL  
 EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2002/12/03

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS G (DELTA T > 4.0 C/100 M)

Browns Ferry Nuclear Plant

PART 1 OF 2 GROUND LEVEL RELEASE MODE

JUL 1, 2002 - SEP 30, 2002

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.039	0.037	0.000	0.000	0.000	0.000	0.000	0.076
NNE	0.000	0.000	0.013	0.000	0.008	0.000	0.000	0.000	0.000	0.021
NE	0.000	0.001	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.007
ENE	0.000	0.000	0.009	0.019	0.000	0.000	0.000	0.000	0.000	0.029
E	0.000	0.000	0.003	0.005	0.000	0.000	0.000	0.000	0.000	0.008
ESE	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.003
SE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SSE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
S	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SSW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WSW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
W	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NNW	0.000	0.000	0.018	0.018	0.000	0.000	0.000	0.000	0.000	0.036
SUBTOTAL	0.000	0.001	0.091	0.080	0.008	0.000	0.000	0.000	0.000	0.180

TOTAL HOURS OF VALID OBSERVATIONS 2156.000  
 TOTAL HOURS OF GROUND LEVEL RELEASE 139.510  
 TOTAL HOURS OF STABILITY CLASS G 16.620  
 TOTAL HOURS OF GROUND LEVEL STABILITY CLASS G 3.890

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant  
 STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
 WIND DIRECTION MEASURED AT 10.50 METER LEVEL  
 WIND SPEED MEASURED AT 10.50 METER LEVEL  
 EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2002/12/03

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

RADIOLOGICAL IMPACT ASSESSMENT  
BROWNS FERRY NUCLEAR PLANT  
JANUARY - DECEMBER 2002

TABLE 17

JOINT FREQUENCY DISTRIBUTION IN PERCENT  
FOR SPLIT LEVEL RELEASES  
(GROUND LEVEL PORTION)  
FOURTH QUARTER

SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS A (DELTA T<=-1.9 C/100 M)

Browns Ferry Nuclear Plant

PART 1 OF 2 GROUND LEVEL RELEASE MODE

OCT 1, 2002 - DEC 31, 2002

WIND DIRECTION	WIND SPEED(MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.000	0.000	0.000	0.011	0.010	0.000	0.000	0.020
NNE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ENE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
E	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ESE	0.000	0.000	0.000	0.012	0.000	0.000	0.000	0.000	0.000	0.012
SE	0.000	0.000	0.000	0.032	0.000	0.000	0.000	0.000	0.000	0.032
SSE	0.000	0.000	0.006	0.012	0.000	0.000	0.000	0.000	0.000	0.018
S	0.000	0.000	0.023	0.065	0.000	0.000	0.000	0.000	0.000	0.088
SSW	0.000	0.000	0.000	0.024	0.000	0.000	0.000	0.000	0.000	0.024
SW	0.000	0.000	0.000	0.008	0.000	0.000	0.000	0.000	0.000	0.006
WSW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
W	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NW	0.000	0.000	0.000	0.000	0.000	0.006	0.009	0.000	0.000	0.015
NNW	0.000	0.000	0.000	0.000	0.000	0.000	0.009	0.000	0.000	0.009
SUBTOTAL	0.000	0.000	0.029	0.151	0.000	0.017	0.027	0.000	0.000	0.224

TOTAL HOURS OF VALID OBSERVATIONS 2163.000

TOTAL HOURS OF GROUND LEVEL RELEASE 267.730

TOTAL HOURS OF STABILITY CLASS A 4.850

TOTAL HOURS OF GROUND LEVEL STABILITY CLASS A 4.850

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant

STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS

WIND DIRECTION MEASURED AT 10.50 METER LEVEL

WIND SPEED MEASURED AT 10.50 METER LEVEL

EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2003/02/07

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS B (-1.9< DELTA T<=-1.7 C/100 M)

Browns Ferry Nuclear Plant

PART 1 OF 2 GROUND LEVEL RELEASE MODE

OCT 1, 2002 - DEC 31, 2002

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.000	0.000	0.000	0.024	0.010	0.000	0.000	0.033
NNE	0.000	0.000	0.000	0.000	0.011	0.000	0.000	0.000	0.000	0.011
NE	0.000	0.000	0.000	0.000	0.000	0.006	0.000	0.000	0.000	0.006
ENE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
E	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ESE	0.000	0.000	0.000	0.000	0.007	0.000	0.000	0.000	0.000	0.007
SE	0.000	0.000	0.002	0.018	0.000	0.000	0.000	0.000	0.000	0.020
SSE	0.000	0.000	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.012
S	0.000	0.000	0.015	0.015	0.000	0.000	0.000	0.000	0.000	0.030
SSW	0.000	0.000	0.000	0.006	0.000	0.000	0.000	0.000	0.000	0.006
SW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WSW	0.000	0.000	0.000	0.000	0.005	0.008	0.000	0.000	0.000	0.013
W	0.000	0.000	0.000	0.000	0.006	0.008	0.000	0.000	0.000	0.014
WNW	0.000	0.000	0.000	0.000	0.000	0.000	0.009	0.000	0.000	0.009
NW	0.000	0.000	0.000	0.000	0.000	0.007	0.019	0.000	0.000	0.026
NNW	0.000	0.000	0.000	0.000	0.008	0.025	0.010	0.000	0.000	0.043
SUBTOTAL	0.000	0.000	0.030	0.040	0.037	0.079	0.048	0.000	0.000	0.233

TOTAL HOURS OF VALID OBSERVATIONS 2163.000  
 TOTAL HOURS OF GROUND LEVEL RELEASE 267.730  
 TOTAL HOURS OF STABILITY CLASS B 5.040  
 TOTAL HOURS OF GROUND LEVEL STABILITY CLASS B 5.040

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant  
 STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
 WIND DIRECTION MEASURED AT 10.50 METER LEVEL  
 WIND SPEED MEASURED AT 10.50 METER LEVEL  
 EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2003/02/07

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS



SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS C (-1.7< DELTA T<=-1.5 C/100 M)

Browns Ferry Nuclear Plant

PART 1 OF 2 GROUND LEVEL RELEASE MODE

OCT 1, 2002 - DEC 31, 2002

WIND DIRECTION	WIND SPEED(MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.000	0.001	0.000	0.032	0.018	0.000	0.000	0.052
NNE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NE	0.000	0.000	0.000	0.000	0.005	0.000	0.000	0.000	0.000	0.005
ENE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
E	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ESE	0.000	0.000	0.000	0.018	0.000	0.000	0.000	0.000	0.000	0.018
SE	0.000	0.000	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.007
SSE	0.000	0.000	0.006	0.043	0.000	0.000	0.000	0.000	0.000	0.050
S	0.000	0.000	0.008	0.007	0.000	0.000	0.000	0.000	0.000	0.016
SSW	0.000	0.000	0.000	0.008	0.000	0.000	0.000	0.000	0.000	0.008
SW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WSW	0.000	0.000	0.000	0.000	0.006	0.008	0.000	0.000	0.000	0.014
W	0.000	0.000	0.000	0.000	0.004	0.000	0.011	0.000	0.000	0.015
WNW	0.000	0.000	0.000	0.000	0.002	0.027	0.051	0.000	0.000	0.080
NW	0.000	0.000	0.000	0.000	0.018	0.028	0.028	0.000	0.000	0.075
NNW	0.000	0.000	0.000	0.000	0.000	0.058	0.018	0.000	0.000	0.076
SUBTOTAL	0.000	0.000	0.022	0.079	0.036	0.153	0.127	0.000	0.000	0.417

TOTAL HOURS OF VALID OBSERVATIONS 2163.000

TOTAL HOURS OF GROUND LEVEL RELEASE 267.730

TOTAL HOURS OF STABILITY CLASS C 11.780

TOTAL HOURS OF GROUND LEVEL STABILITY CLASS C 9.020

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant

STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS

WIND DIRECTION MEASURED AT 10.50 METER LEVEL

WIND SPEED MEASURED AT 10.50 METER LEVEL

EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2003/02/07

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS D (-1.5< DELTA T<=-0.5 C/100 M)

Browns Ferry Nuclear Plant

PART 1 OF 2 GROUND LEVEL RELEASE MODE

OCT 1, 2002 - DEC 31, 2002

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.003	0.075	0.121	0.095	0.000	0.000	0.000	0.294
NNE	0.000	0.000	0.000	0.046	0.117	0.114	0.036	0.000	0.000	0.313
NE	0.000	0.000	0.000	0.018	0.035	0.051	0.069	0.000	0.000	0.174
ENE	0.000	0.000	0.000	0.017	0.030	0.008	0.010	0.000	0.000	0.064
E	0.000	0.000	0.007	0.073	0.007	0.017	0.000	0.000	0.000	0.104
ESE	0.000	0.000	0.026	0.271	0.304	0.151	0.035	0.000	0.000	0.787
SE	0.000	0.000	0.066	0.076	0.123	0.145	0.000	0.000	0.000	0.410
SSE	0.000	0.006	0.157	0.165	0.046	0.008	0.000	0.000	0.000	0.382
S	0.000	0.003	0.111	0.052	0.008	0.000	0.000	0.000	0.000	0.174
SSW	0.000	0.000	0.013	0.016	0.018	0.000	0.000	0.000	0.000	0.047
SW	0.000	0.000	0.000	0.029	0.000	0.000	0.000	0.000	0.000	0.029
WSW	0.000	0.000	0.000	0.019	0.036	0.051	0.000	0.000	0.000	0.105
W	0.000	0.000	0.000	0.023	0.092	0.163	0.049	0.000	0.000	0.327
WNW	0.000	0.000	0.000	0.009	0.074	0.189	0.313	0.031	0.000	0.616
NW	0.000	0.000	0.000	0.035	0.050	0.305	0.271	0.038	0.000	0.699
NNW	0.000	0.000	0.000	0.036	0.136	0.564	0.084	0.000	0.000	0.820
SUBTOTAL	0.000	0.009	0.382	0.961	1.196	1.862	0.866	0.069	0.000	5.347

TOTAL HOURS OF VALID OBSERVATIONS 2163.000  
 TOTAL HOURS OF GROUND LEVEL RELEASE 267.730  
 TOTAL HOURS OF STABILITY CLASS D 1226.710  
 TOTAL HOURS OF GROUND LEVEL STABILITY CLASS D 115.650

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant  
 STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
 WIND DIRECTION MEASURED AT 10.50 METER LEVEL  
 WIND SPEED MEASURED AT 10.50 METER LEVEL  
 EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2003/02/07

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS E (-0.5< DELTA T<= 1.5 C/100 M)

Browns Ferry Nuclear Plant

PART 1 OF 2 GROUND LEVEL RELEASE MODE

OCT 1, 2002 - DEC 31, 2002

WIND DIRECTION	WIND SPEED(MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.015	0.101	0.075	0.035	0.000	0.000	0.000	0.227
NNE	0.000	0.000	0.009	0.037	0.043	0.000	0.000	0.000	0.000	0.088
NE	0.000	0.000	0.008	0.008	0.024	0.000	0.000	0.000	0.000	0.040
ENE	0.000	0.000	0.010	0.030	0.006	0.017	0.000	0.000	0.000	0.063
E	0.000	0.000	0.040	0.035	0.000	0.000	0.000	0.000	0.000	0.075
ESE	0.000	0.000	0.055	0.061	0.101	0.071	0.000	0.000	0.000	0.289
SE	0.000	0.005	0.096	0.120	0.280	0.093	0.000	0.000	0.000	0.594
SSE	0.000	0.003	0.185	0.330	0.444	0.000	0.000	0.000	0.000	0.963
S	0.000	0.000	0.176	0.184	0.255	0.269	0.000	0.000	0.000	0.885
SSW	0.000	0.000	0.019	0.074	0.018	0.174	0.000	0.000	0.000	0.285
SW	0.000	0.000	0.016	0.012	0.000	0.000	0.000	0.000	0.000	0.028
WSW	0.000	0.000	0.003	0.049	0.055	0.008	0.000	0.000	0.000	0.115
W	0.000	0.000	0.005	0.023	0.019	0.008	0.000	0.000	0.000	0.055
WNW	0.000	0.000	0.000	0.008	0.014	0.000	0.000	0.000	0.000	0.022
NW	0.000	0.000	0.003	0.016	0.026	0.016	0.034	0.000	0.000	0.095
NNW	0.000	0.000	0.029	0.086	0.073	0.059	0.012	0.000	0.000	0.259
SUBTOTAL	0.000	0.009	0.670	1.174	1.432	0.750	0.046	0.000	0.000	4.081

TOTAL HOURS OF VALID OBSERVATIONS 2163.000  
 TOTAL HOURS OF GROUND LEVEL RELEASE 267.730  
 TOTAL HOURS OF STABILITY CLASS E 738.670  
 TOTAL HOURS OF GROUND LEVEL STABILITY CLASS E 88.280

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant  
 STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
 WIND DIRECTION MEASURED AT 10.50 METER LEVEL  
 WIND SPEED MEASURED AT 10.50 METER LEVEL  
 EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2003/02/07

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS F ( 1.5< DELTA T<= 4.0 C/100 M)

Browns Ferry Nuclear Plant

PART 1 OF 2 GROUND LEVEL RELEASE MODE

OCT 1, 2002 - DEC 31, 2002

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.058	0.123	0.000	0.000	0.000	0.000	0.000	0.182
NNE	0.000	0.000	0.025	0.038	0.000	0.000	0.000	0.000	0.000	0.063
NE	0.000	0.000	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.007
ENE	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.003
E	0.000	0.000	0.045	0.026	0.000	0.000	0.000	0.000	0.000	0.071
ESE	0.000	0.000	0.029	0.000	0.000	0.000	0.000	0.000	0.000	0.029
SE	0.000	0.015	0.051	0.123	0.069	0.000	0.000	0.000	0.000	0.258
SSE	0.000	0.002	0.105	0.220	0.046	0.041	0.000	0.000	0.000	0.415
S	0.000	0.002	0.098	0.097	0.108	0.127	0.000	0.000	0.000	0.432
SSW	0.000	0.003	0.015	0.000	0.000	0.000	0.000	0.000	0.000	0.018
SW	0.000	0.000	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.004
WSW	0.000	0.000	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.004
W	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.001
WNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NW	0.000	0.000	0.000	0.000	0.006	0.000	0.000	0.000	0.000	0.006
NNW	0.000	0.000	0.033	0.055	0.008	0.018	0.000	0.000	0.000	0.114
SUBTOTAL	0.000	0.023	0.478	0.683	0.238	0.185	0.000	0.000	0.000	1.607

TOTAL HOURS OF VALID OBSERVATIONS 2163.000  
 TOTAL HOURS OF GROUND LEVEL RELEASE 267.730  
 TOTAL HOURS OF STABILITY CLASS F 153.490  
 TOTAL HOURS OF GROUND LEVEL STABILITY CLASS F 34.770

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant  
 STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
 WIND DIRECTION MEASURED AT 10.50 METER LEVEL  
 WIND SPEED MEASURED AT 10.50 METER LEVEL  
 EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2003/02/01

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS G (DELTA T > 4.0 C/100 M)

Browns Ferry Nuclear Plant

PART 1 OF 2 GROUND LEVEL RELEASE MODE

OCT 1, 2002 - DEC 31, 2002

WIND DIRECTION	WIND SPEED(MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.057	0.033	0.000	0.000	0.000	0.000	0.000	0.090
NNE	0.000	0.000	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.007
NE	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.002
ENE	0.000	0.000	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.005
E	0.000	0.006	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.011
ESE	0.000	0.010	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.020
SE	0.000	0.000	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.012
SSE	0.000	0.015	0.227	0.040	0.000	0.000	0.000	0.000	0.000	0.282
S	0.000	0.003	0.015	0.000	0.012	0.000	0.000	0.000	0.000	0.030
SSW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WSW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
W	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NNW	0.000	0.000	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.008
SUBTOTAL	0.000	0.034	0.349	0.073	0.012	0.000	0.000	0.000	0.000	0.468

TOTAL HOURS OF VALID OBSERVATIONS 2163.000  
 TOTAL HOURS OF GROUND LEVEL RELEASE 267.730  
 TOTAL HOURS OF STABILITY CLASS G 22.460  
 TOTAL HOURS OF GROUND LEVEL STABILITY CLASS G 10.120

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant  
 STABILITY BASED ON DELTA-T BETWEEN 10.03 AND 45.30 METERS  
 WIND DIRECTION MEASURED AT 10.50 METER LEVEL  
 WIND SPEED MEASURED AT 10.50 METER LEVEL  
 EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2003/02/07

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

RADIOLOGICAL IMPACT ASSESSMENT  
BROWNS FERRY NUCLEAR PLANT  
JANUARY - DECEMBER 2002

TABLE 18

JOINT FREQUENCY DISTRIBUTION IN PERCENT  
FOR SPLIT LEVEL RELEASES  
(ELEVATED PORTION)  
FIRST QUARTER

SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS A (DELTA T<=-1.9 C/100 M)

Browns Ferry Nuclear Plant

PART 2 OF 2 ELEVATED RELEASE MODE

JAN 1, 2002 - MAR 31, 2002

WIND DIRECTION	WIND SPEED(MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NNE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ENE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
E	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ESE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SSE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
S	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SSW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WSW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
W	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SUBTOTAL	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

TOTAL HOURS OF VALID OBSERVATIONS 2108.000  
 TOTAL HOURS OF ELEVATED RELEASES 1797.020  
 TOTAL HOURS OF STABILITY CLASS A 25.860  
 TOTAL HOURS OF ELEVATED STABILITY CLASS A 0.000

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant  
 STABILITY BASED ON DELTA-T BETWEEN 45.30 AND 89.59 METERS  
 WIND DIRECTION MEASURED AT 45.74 METER LEVEL  
 WIND SPEED MEASURED AT 45.74 METER LEVEL  
 EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2002/05/15

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS B (-1.9< DELTA T<=-1.7 C/100 M)

Browns Ferry Nuclear Plant

PART 2 OF 2 ELEVATED RELEASE MODE

JAN 1, 2002 - MAR 31, 2002

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NNE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ENE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
E	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ESE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SSE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
S	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SSW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WSW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
W	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SUBTOTAL	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

TOTAL HOURS OF VALID OBSERVATIONS 2108.000  
 TOTAL HOURS OF ELEVATED RELEASES 1797.020  
 TOTAL HOURS OF STABILITY CLASS B 8.810  
 TOTAL HOURS OF ELEVATED STABILITY CLASS B 0.000

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant  
 STABILITY BASED ON DELTA-T BETWEEN 45.30 AND 89.59 METERS  
 WIND DIRECTION MEASURED AT 45.74 METER LEVEL  
 WIND SPEED MEASURED AT 45.74 METER LEVEL  
 EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2002/05/15

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS



SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS C (-1.7< DELTA T<=-1.5 C/100 M)

Browns Ferry Nuclear Plant

PART 2 OF 2 ELEVATED RELEASE MODE

JAN 1, 2002 - MAR 31, 2002

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NNE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ENE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
E	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ESE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SE	0.000	0.000	0.000	0.047	0.000	0.000	0.000	0.000	0.000	0.047
SSE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
S	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SSW	0.000	0.000	0.000	0.000	0.047	0.000	0.000	0.000	0.000	0.047
SW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WSW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
W	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.035	0.000	0.035
NW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SUBTOTAL	0.000	0.000	0.000	0.047	0.047	0.000	0.000	0.035	0.000	0.130

TOTAL HOURS OF VALID OBSERVATIONS 2108.000  
 TOTAL HOURS OF ELEVATED RELEASES 1797.020  
 TOTAL HOURS OF STABILITY CLASS C 13.020  
 TOTAL HOURS OF ELEVATED STABILITY CLASS C 2.740

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant  
 STABILITY BASED ON DELTA-T BETWEEN 45.30 AND 89.59 METERS  
 WIND DIRECTION MEASURED AT 45.74 METER LEVEL  
 WIND SPEED MEASURED AT 45.74 METER LEVEL  
 EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2002/05/15

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS D (-1.5< DELTA T<=-0.5 C/100 M)

Browns Ferry Nuclear Plant

PART 2 OF 2 ELEVATED RELEASE MODE

JAN 1, 2002 - MAR 31, 2002

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.047	0.047	0.275	2.684	2.277	0.214	0.008	5.553
NNE	0.000	0.000	0.095	0.142	0.591	2.751	0.698	0.000	0.000	4.277
NE	0.000	0.000	0.047	0.285	0.363	0.761	0.039	0.000	0.000	1.496
ENE	0.000	0.000	0.047	0.095	0.134	0.211	0.000	0.000	0.000	0.487
E	0.000	0.000	0.190	0.285	0.094	0.169	0.038	0.000	0.000	0.777
ESE	0.000	0.000	0.237	0.095	0.278	0.423	0.426	0.062	0.000	1.522
SE	0.000	0.047	0.190	0.664	0.785	0.719	0.192	0.140	0.021	2.759
SSE	0.000	0.000	0.285	0.522	0.047	0.367	0.383	0.268	0.000	1.871
S	0.000	0.000	0.380	0.190	0.045	0.812	1.578	0.302	0.027	3.332
SSW	0.000	0.000	0.190	0.427	0.138	1.106	0.850	0.238	0.012	2.960
SW	0.000	0.000	0.047	0.142	0.227	0.579	0.269	0.000	0.000	1.265
WSW	0.000	0.000	0.095	0.237	0.185	0.246	0.191	0.000	0.000	0.954
W	0.000	0.000	0.047	0.427	0.231	1.208	0.346	0.068	0.000	2.326
WNW	0.000	0.000	0.047	0.095	0.452	1.371	1.579	0.603	0.004	4.153
NW	0.000	0.000	0.095	0.190	0.185	1.728	2.196	0.901	0.011	5.306
NNW	0.000	0.000	0.047	0.047	0.181	2.007	1.853	0.067	0.003	4.205
SUBTOTAL	0.000	0.047	2.087	3.890	4.210	17.142	12.917	2.863	0.086	43.242

TOTAL HOURS OF VALID OBSERVATIONS 2108.000  
 TOTAL HOURS OF ELEVATED RELEASES 1797.020  
 TOTAL HOURS OF STABILITY CLASS D 1007.200  
 TOTAL HOURS OF ELEVATED STABILITY CLASS D 911.540

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant  
 STABILITY BASED ON DELTA-T BETWEEN 45.30 AND 89.59 METERS  
 WIND DIRECTION MEASURED AT 45.74 METER LEVEL  
 WIND SPEED MEASURED AT 45.74 METER LEVEL  
 EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2002/05/15

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS E (-0.5< DELTA T<= 1.5 C/100 M)

Browns Ferry Nuclear Plant

PART 2 OF 2 ELEVATED RELEASE MODE

JAN 1, 2002 - MAR 31, 2002

WIND DIRECTION	CALM	0.6-1.4	1.5-3.4	WIND SPEED (MPH)		7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	TOTAL
				3.5-5.4	5.5-7.4					
N	0.000	0.000	0.095	0.095	0.180	1.594	0.154	0.000	0.000	2.119
NNE	0.000	0.000	0.142	0.332	0.185	1.154	0.000	0.037	0.000	1.851
NE	0.000	0.000	0.142	0.237	0.223	0.750	0.000	0.000	0.000	1.353
ENE	0.000	0.000	0.285	0.190	0.141	0.597	0.079	0.000	0.000	1.291
E	0.000	0.000	0.047	0.285	0.512	0.298	0.000	0.000	0.000	1.142
ESE	0.000	0.000	0.237	0.142	0.225	0.793	0.194	0.000	0.000	1.592
SE	0.000	0.000	0.237	0.190	0.811	1.545	0.653	0.268	0.007	3.711
SSE	0.000	0.000	0.095	0.427	0.680	2.361	1.895	0.472	0.021	5.952
S	0.000	0.047	0.095	0.380	0.727	2.068	2.507	0.789	0.042	6.655
SSW	0.000	0.047	0.142	0.237	0.179	0.782	0.966	0.068	0.011	2.445
SW	0.000	0.000	0.095	0.237	0.182	0.502	0.273	0.000	0.000	1.289
WSW	0.000	0.000	0.095	0.332	0.184	0.259	0.000	0.000	0.000	0.869
W	0.000	0.000	0.095	0.285	0.409	0.334	0.000	0.000	0.000	1.123
WNW	0.000	0.000	0.047	0.142	0.182	0.126	0.078	0.000	0.000	0.576
NW	0.000	0.000	0.095	0.142	0.414	0.375	0.233	0.000	0.000	1.259
NNW	0.000	0.000	0.047	0.332	0.181	1.121	0.390	0.000	0.000	2.072
SUBTOTAL	0.000	0.095	1.992	3.985	5.416	14.662	7.422	1.635	0.081	35.288

TOTAL HOURS OF VALID OBSERVATIONS 2108.000  
 TOTAL HOURS OF ELEVATED RELEASES 1797.020  
 TOTAL HOURS OF STABILITY CLASS E 822.100  
 TOTAL HOURS OF ELEVATED STABILITY CLASS E 743.870

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant  
 STABILITY BASED ON DELTA-T BETWEEN 45.30 AND 89.59 METERS  
 WIND DIRECTION MEASURED AT 45.74 METER LEVEL  
 WIND SPEED MEASURED AT 45.74 METER LEVEL  
 EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2002/05/15

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS F ( 1.5< DELTA T<= 4.0 C/100 M)

Browns Ferry Nuclear Plant

PART 2 OF 2 ELEVATED RELEASE MODE

JAN 1, 2002 - MAR 31, 2002

WIND DIRECTION	WIND SPEED(MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.047	0.047	0.000	0.165	0.000	0.000	0.000	0.259
NNE	0.000	0.000	0.047	0.047	0.045	0.083	0.000	0.000	0.000	0.222
NE	0.000	0.000	0.095	0.095	0.142	0.250	0.000	0.000	0.000	0.581
ENE	0.000	0.000	0.095	0.047	0.092	0.042	0.000	0.000	0.000	0.276
E	0.000	0.000	0.047	0.047	0.045	0.125	0.000	0.000	0.000	0.264
ESE	0.000	0.000	0.000	0.047	0.138	0.254	0.000	0.000	0.000	0.439
SE	0.000	0.000	0.190	0.095	0.182	0.371	0.079	0.000	0.000	0.916
SSE	0.000	0.000	0.000	0.095	0.094	0.333	0.039	0.000	0.000	0.561
S	0.000	0.000	0.047	0.237	0.374	0.124	0.000	0.000	0.000	0.782
SSW	0.000	0.000	0.000	0.142	0.000	0.043	0.000	0.000	0.000	0.185
SW	0.000	0.000	0.000	0.000	0.047	0.040	0.000	0.000	0.000	0.088
WSW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
W	0.000	0.000	0.000	0.047	0.000	0.000	0.000	0.000	0.000	0.047
WNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NNW	0.000	0.000	0.000	0.047	0.046	0.126	0.039	0.000	0.000	0.259
SUBTOTAL	0.000	0.000	0.569	0.996	1.204	1.954	0.157	0.000	0.000	4.881

TOTAL HOURS OF VALID OBSERVATIONS 2108.000  
 TOTAL HOURS OF ELEVATED RELEASES 1797.020  
 TOTAL HOURS OF STABILITY CLASS F 159.840  
 TOTAL HOURS OF ELEVATED STABILITY CLASS F 102.890

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant  
 STABILITY BASED ON DELTA-T BETWEEN 45.30 AND 89.59 METERS  
 WIND DIRECTION MEASURED AT 45.74 METER LEVEL  
 WIND SPEED MEASURED AT 45.74 METER LEVEL  
 EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2002/05/15

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS G (DELTA T > 4.0 C/100 M)

Browns Ferry Nuclear Plant

PART 2 OF 2 ELEVATED RELEASE MODE

JAN 1, 2002 - MAR 31, 2002

WIND DIRECTION	WIND SPEED(MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.000	0.000	0.045	0.000	0.000	0.000	0.000	0.045
NNE	0.000	0.000	0.000	0.000	0.046	0.000	0.000	0.000	0.000	0.046
NE	0.000	0.000	0.047	0.000	0.000	0.000	0.039	0.000	0.000	0.087
ENE	0.000	0.000	0.000	0.000	0.000	0.040	0.000	0.000	0.000	0.040
E	0.000	0.000	0.095	0.047	0.000	0.085	0.000	0.000	0.000	0.228
ESE	0.000	0.000	0.000	0.047	0.185	0.127	0.000	0.000	0.000	0.359
SE	0.000	0.000	0.190	0.095	0.047	0.210	0.000	0.000	0.000	0.541
SSE	0.000	0.000	0.000	0.000	0.045	0.042	0.000	0.000	0.000	0.087
S	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SSW	0.000	0.000	0.047	0.000	0.000	0.042	0.000	0.000	0.000	0.089
SW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WSW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
W	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WNW	0.000	0.000	0.000	0.047	0.000	0.000	0.000	0.000	0.000	0.047
NW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NNW	0.000	0.000	0.000	0.095	0.000	0.043	0.000	0.000	0.000	0.138
SUBTOTAL	0.000	0.000	0.380	0.332	0.368	0.588	0.039	0.000	0.000	1.707

TOTAL HOURS OF VALID OBSERVATIONS 2108.000  
 TOTAL HOURS OF ELEVATED RELEASES 1797.020  
 TOTAL HOURS OF STABILITY CLASS G 71.170  
 TOTAL HOURS OF ELEVATED STABILITY CLASS G 35.980

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant  
 STABILITY BASED ON DELTA-T BETWEEN 45.30 AND 89.59 METERS  
 WIND DIRECTION MEASURED AT 45.74 METER LEVEL  
 WIND SPEED MEASURED AT 45.74 METER LEVEL  
 EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2002/05/15

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

RADIOLOGICAL IMPACT ASSESSMENT  
BROWNS FERRY NUCLEAR PLANT  
JANUARY - DECEMBER 2002

TABLE 19

JOINT FREQUENCY DISTRIBUTION IN PERCENT  
FOR SPLIT LEVEL RELEASES  
(ELEVATED PORTION)  
SECOND QUARTER

SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS A (DELTA T<=-1.9 C/100 M)

Browns Ferry Nuclear Plant

PART 2 OF 2 ELEVATED RELEASE MODE

APR 1, 2002 - JUN 30, 2002

WIND DIRECTION	WIND SPEED(MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NNE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ENE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
E	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ESE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SSE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
S	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SSW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WSW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
W	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SUBTOTAL	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

TOTAL HOURS OF VALID OBSERVATIONS	2114.000
TOTAL HOURS OF ELEVATED RELEASES	1882.080
TOTAL HOURS OF STABILITY CLASS A	41.580
TOTAL HOURS OF ELEVATED STABILITY CLASS A	0.000

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant  
 STABILITY BASED ON DELTA-T BETWEEN 45.30 AND 89.59 METERS  
 WIND DIRECTION MEASURED AT 45.74 METER LEVEL  
 WIND SPEED MEASURED AT 45.74 METER LEVEL  
 EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2002/08/06

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS B (-1.9< DELTA T<=-1.7 C/100 M)

Browns Ferry Nuclear Plant

PART 2 OF 2 ELEVATED RELEASE MODE

APR 1, 2002 - JUN 30, 2002

WIND DIRECTION	WIND SPEED(MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NNE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ENE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
E	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ESE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SSE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
S	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SSW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WSW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
W	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SUBTOTAL	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

TOTAL HOURS OF VALID OBSERVATIONS 2114.000  
 TOTAL HOURS OF ELEVATED RELEASES 1882.080  
 TOTAL HOURS OF STABILITY CLASS B 9.540  
 TOTAL HOURS OF ELEVATED STABILITY CLASS B 0.000

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant  
 STABILITY BASED ON DELTA-T BETWEEN 45.30 AND 89.59 METERS  
 WIND DIRECTION MEASURED AT 45.74 METER LEVEL  
 WIND SPEED MEASURED AT 45.74 METER LEVEL  
 EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2002/08/06.

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS



SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR  
STABILITY CLASS C (-1.7< DELTA T<=-1.5 C/100 M)

Browns Ferry Nuclear Plant

PART 2 OF 2 ELEVATED RELEASE MODE

APR 1, 2002 - JUN 30, 2002

WIND DIRECTION	WIND SPEED(MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NNE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ENE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
E	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ESE	0.000	0.000	0.000	0.000	0.000	0.042	0.000	0.000	0.000	0.042
SE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SSE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
S	0.000	0.000	0.000	0.047	0.000	0.000	0.000	0.000	0.000	0.047
SSW	0.000	0.000	0.000	0.047	0.000	0.043	0.000	0.000	0.000	0.090
SW	0.000	0.000	0.000	0.000	0.000	0.043	0.000	0.000	0.000	0.043
WSW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
W	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004	0.004
NW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SUBTOTAL	0.000	0.000	0.000	0.095	0.000	0.128	0.000	0.000	0.004	0.227

TOTAL HOURS OF VALID OBSERVATIONS	2114.000
TOTAL HOURS OF ELEVATED RELEASES	1882.080
TOTAL HOURS OF STABILITY CLASS C	14.150
TOTAL HOURS OF ELEVATED STABILITY CLASS C	4.790

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant  
STABILITY BASED ON DELTA-T BETWEEN 45.30 AND 89.59 METERS  
WIND DIRECTION MEASURED AT 45.74 METER LEVEL  
WIND SPEED MEASURED AT 45.74 METER LEVEL  
EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2002/08/06

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR  
STABILITY CLASS D (-1.5< DELTA T<=-0.5 C/100 M)

Browns Ferry Nuclear Plant

PART 2 OF 2 ELEVATED RELEASE MODE

APR 1, 2002 - JUN 30, 2002

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.000	0.331	0.228	1.277	1.920	0.414	0.000	4.170
NNE	0.000	0.000	0.047	0.237	0.272	1.414	0.965	0.110	0.000	3.045
NE	0.000	0.000	0.095	0.142	0.225	0.703	0.077	0.000	0.000	1.241
ENE	0.000	0.000	0.000	0.189	0.185	0.258	0.000	0.000	0.000	0.632
E	0.000	0.000	0.047	0.047	0.136	0.170	0.000	0.000	0.000	0.401
ESE	0.000	0.000	0.047	0.237	0.862	2.324	0.655	0.000	0.000	4.124
SE	0.000	0.000	0.284	0.757	1.139	2.642	1.922	0.393	0.001	7.139
SSE	0.000	0.000	0.473	0.662	0.682	1.820	0.735	0.111	0.004	4.487
S	0.000	0.000	0.378	0.757	0.548	1.257	1.461	0.246	0.011	4.659
SSW	0.000	0.000	0.662	0.568	0.496	1.878	1.432	0.212	0.000	5.248
SW	0.000	0.000	0.520	0.615	0.543	1.208	0.193	0.000	0.000	3.079
WSW	0.000	0.047	0.473	0.851	0.139	0.125	0.229	0.018	0.000	1.883
W	0.000	0.000	0.142	0.520	0.318	0.042	0.000	0.000	0.000	1.022
WNW	0.000	0.000	0.095	0.378	0.320	0.701	0.000	0.021	0.000	1.515
NW	0.000	0.000	0.142	0.473	0.731	1.551	0.427	0.064	0.000	3.388
NNW	0.000	0.000	0.047	0.095	0.364	0.695	0.576	0.121	0.000	1.898
SUBTOTAL	0.000	0.047	3.453	6.859	7.186	18.066	10.593	1.711	0.017	47.933

TOTAL HOURS OF VALID OBSERVATIONS 2114.000  
TOTAL HOURS OF ELEVATED RELEASES 1882.080  
TOTAL HOURS OF STABILITY CLASS D 1073.710  
TOTAL HOURS OF ELEVATED STABILITY CLASS D 1013.300

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant  
STABILITY BASED ON DELTA-T BETWEEN 45.30 AND 89.59 METERS  
WIND DIRECTION MEASURED AT 45.74 METER LEVEL  
WIND SPEED MEASURED AT 45.74 METER LEVEL  
EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2002/08/06.

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR  
STABILITY CLASS E (-0.5< DELTA T<= 1.5 C/100 M)

Browns Ferry Nuclear Plant

PART 2 OF 2 ELEVATED RELEASE MODE

APR 1, 2002 - JUN 30, 2002

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.047	0.189	0.363	0.494	0.348	0.000	0.000	1.441
NNE	0.000	0.000	0.047	0.095	0.687	1.206	0.154	0.000	0.000	2.189
NE	0.000	0.000	0.095	0.331	0.412	0.832	0.196	0.000	0.000	1.866
ENE	0.000	0.000	0.189	0.378	0.273	0.502	0.194	0.000	0.000	1.536
E	0.000	0.047	0.142	0.331	0.591	0.853	0.000	0.000	0.000	1.965
ESE	0.000	0.000	0.047	0.378	0.912	2.277	0.118	0.000	0.000	3.733
SE	0.000	0.000	0.189	0.520	0.681	1.711	0.888	0.155	0.010	4.155
SSE	0.000	0.000	0.189	0.662	0.637	1.037	0.853	0.359	0.008	3.745
S	0.000	0.000	0.237	0.378	0.277	1.118	0.653	0.000	0.006	2.669
SSW	0.000	0.000	0.142	0.331	0.271	0.821	0.733	0.056	0.000	2.353
SW	0.000	0.047	0.378	0.378	0.316	0.169	0.000	0.000	0.000	1.289
WSW	0.000	0.000	0.284	0.142	0.276	0.254	0.078	0.000	0.000	1.034
W	0.000	0.000	0.189	0.426	0.367	0.125	0.000	0.000	0.000	1.107
WNW	0.000	0.000	0.426	0.142	0.045	0.128	0.039	0.000	0.000	0.780
NW	0.000	0.000	0.284	0.047	0.047	0.371	0.077	0.000	0.000	0.827
NNW	0.000	0.000	0.142	0.237	0.136	0.250	0.039	0.000	0.000	0.803
SUBTOTAL	0.000	0.095	3.027	4.967	6.294	12.147	4.369	0.570	0.024	31.492

TOTAL HOURS OF VALID OBSERVATIONS	2114.000
TOTAL HOURS OF ELEVATED RELEASES	1882.080
TOTAL HOURS OF STABILITY CLASS E	741.240
TOTAL HOURS OF ELEVATED STABILITY CLASS E	665.740

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant  
STABILITY BASED ON DELTA-T BETWEEN 45.30 AND 89.59 METERS  
WIND DIRECTION MEASURED AT 45.74 METER LEVEL  
WIND SPEED MEASURED AT 45.74 METER LEVEL  
EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2002/08/06

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS F ( 1.5< DELTA T<= 4.0 C/100 M)

Browns Ferry Nuclear Plant

PART 2 OF 2 ELEVATED RELEASE MODE

APR 1, 2002 - JUN 30, 2002

WIND DIRECTION	WIND SPEED(MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.000	0.047	0.045	0.000	0.000	0.000	0.000	0.092
NNE	0.000	0.000	0.000	0.047	0.088	0.739	0.000	0.000	0.000	0.875
NE	0.000	0.000	0.047	0.047	0.226	0.377	0.157	0.000	0.000	0.854
ENE	0.000	0.000	0.000	0.237	0.408	0.254	0.157	0.000	0.000	1.055
E	0.000	0.000	0.047	0.095	0.311	0.378	0.000	0.000	0.000	0.831
ESE	0.000	0.000	0.000	0.047	0.088	0.288	0.039	0.000	0.000	0.463
SE	0.000	0.000	0.047	0.237	0.184	0.376	0.000	0.000	0.000	0.844
SSE	0.000	0.000	0.095	0.189	0.272	0.291	0.000	0.000	0.000	0.847
S	0.000	0.000	0.000	0.142	0.455	0.168	0.000	0.000	0.000	0.765
SSW	0.000	0.000	0.095	0.237	0.091	0.126	0.000	0.000	0.000	0.548
SW	0.000	0.000	0.095	0.237	0.140	0.043	0.000	0.000	0.000	0.514
WSW	0.000	0.000	0.047	0.095	0.000	0.000	0.000	0.000	0.000	0.142
W	0.000	0.000	0.000	0.142	0.047	0.000	0.000	0.000	0.000	0.189
WNW	0.000	0.000	0.000	0.284	0.000	0.000	0.000	0.000	0.000	0.284
NW	0.000	0.000	0.000	0.000	0.000	0.087	0.000	0.000	0.000	0.087
NNW	0.000	0.000	0.095	0.047	0.000	0.084	0.000	0.000	0.000	0.226
SUBTOTAL	0.000	0.000	0.568	2.129	2.355	3.211	0.353	0.000	0.000	8.616

TOTAL HOURS OF VALID OBSERVATIONS 2114.000  
 TOTAL HOURS OF ELEVATED RELEASES 1882.080  
 TOTAL HOURS OF STABILITY CLASS F 207.340  
 TOTAL HOURS OF ELEVATED STABILITY CLASS F 182.140

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant  
 STABILITY BASED ON DELTA-T BETWEEN 45.30 AND 89.59 METERS  
 WIND DIRECTION MEASURED AT 45.74 METER LEVEL  
 WIND SPEED MEASURED AT 45.74 METER LEVEL  
 EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2002/08/06

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR  
STABILITY CLASS G (DELTA T > 4.0 C/100 M)

Browns Ferry Nuclear Plant

PART 2 OF 2 ELEVATED RELEASE MODE

APR 1, 2002 - JUN 30, 2002

WIND DIRECTION	CALM	0.6-1.4	1.5-3.4	WIND SPEED (MPH)		7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	TOTAL
				3.5-5.4	5.5-7.4					
N	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NNE	0.000	0.000	0.000	0.000	0.044	0.041	0.000	0.000	0.000	0.086
NE	0.000	0.000	0.000	0.047	0.047	0.043	0.000	0.000	0.000	0.137
ENE	0.000	0.000	0.000	0.000	0.000	0.123	0.000	0.000	0.000	0.123
E	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ESE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SE	0.000	0.000	0.000	0.047	0.092	0.044	0.000	0.000	0.000	0.183
SSE	0.000	0.000	0.000	0.095	0.000	0.000	0.000	0.000	0.000	0.095
S	0.000	0.000	0.047	0.000	0.045	0.000	0.000	0.000	0.000	0.092
SSW	0.000	0.000	0.047	0.000	0.000	0.000	0.000	0.000	0.000	0.047
SW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WSW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
W	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SUBTOTAL	0.000	0.000	0.095	0.189	0.228	0.250	0.000	0.000	0.000	0.762

TOTAL HOURS OF VALID OBSERVATIONS	2114.000
TOTAL HOURS OF ELEVATED RELEASES	1882.080
TOTAL HOURS OF STABILITY CLASS G	26.440
TOTAL HOURS OF ELEVATED STABILITY CLASS G	16.110

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant  
STABILITY BASED ON DELTA-T BETWEEN 45.30 AND 89.59 METERS  
WIND DIRECTION MEASURED AT 45.74 METER LEVEL  
WIND SPEED MEASURED AT 45.74 METER LEVEL  
EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2002/08/06

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

RADIOLOGICAL IMPACT ASSESSMENT  
BROWNS FERRY NUCLEAR PLANT  
JANUARY - DECEMBER 2002

TABLE 20

JOINT FREQUENCY DISTRIBUTION IN PERCENT  
FOR SPLIT LEVEL RELEASES  
(ELEVATED PORTION)  
THIRD QUARTER

SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS A (DELTA T<=-1.9 C/100 M)

Browns Ferry Nuclear Plant

PART 2 OF 2 ELEVATED RELEASE MODE

JUL 1, 2002 - SEP 30, 2002

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NNE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ENE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
E	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ESE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SSE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
S	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SSW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SW	0.000	0.000	0.000	0.000	0.090	0.043	0.000	0.000	0.000	0.133
WSW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
W	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SUBTOTAL	0.000	0.000	0.000	0.000	0.090	0.043	0.000	0.000	0.000	0.133

TOTAL HOURS OF VALID OBSERVATIONS 2156.000  
 TOTAL HOURS OF ELEVATED RELEASES 2016.490  
 TOTAL HOURS OF STABILITY CLASS A 18.920  
 TOTAL HOURS OF ELEVATED STABILITY CLASS A 2.860

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant  
 STABILITY BASED ON DELTA-T BETWEEN 45.30 AND 89.59 METERS  
 WIND DIRECTION MEASURED AT 45.74 METER LEVEL  
 WIND SPEED MEASURED AT 45.74 METER LEVEL  
 EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2002/12/03

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS B (-1.9< DELTA T<=-1.7 C/100 M)

Browns Ferry Nuclear Plant

PART 2 OF 2 ELEVATED RELEASE MODE

JUL 1, 2002 - SEP 30, 2002

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NNE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ENE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
E	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ESE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SSE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
S	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SSW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SW	0.000	0.000	0.000	0.046	0.093	0.043	0.000	0.000	0.000	0.182
WSW	0.000	0.000	0.000	0.000	0.000	0.042	0.000	0.000	0.000	0.042
W	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SUBTOTAL	0.000	0.000	0.000	0.046	0.093	0.085	0.000	0.000	0.000	0.224

TOTAL HOURS OF VALID OBSERVATIONS 2156.000  
 TOTAL HOURS OF ELEVATED RELEASES 2016.490  
 TOTAL HOURS OF STABILITY CLASS B 9.590  
 TOTAL HOURS OF ELEVATED STABILITY CLASS B 4.830

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant  
 STABILITY BASED ON DELTA-T BETWEEN 45.30 AND 89.59 METERS  
 WIND DIRECTION MEASURED AT 45.74 METER LEVEL  
 WIND SPEED MEASURED AT 45.74 METER LEVEL  
 EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2002/12/03

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS



SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS C (-1.7< DELTA T<=-1.5 C/100 M)

Browns Ferry Nuclear Plant

PART 2 OF 2 ELEVATED RELEASE MODE

JUL 1, 2002 - SEP 30, 2002

WIND DIRECTION	WIND SPEED(MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.000	0.000	0.000	0.039	0.000	0.000	0.000	0.039
NNE	0.000	0.000	0.000	0.000	0.000	0.000	0.038	0.000	0.000	0.038
NE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ENE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
E	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ESE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SE	0.000	0.000	0.000	0.000	0.045	0.000	0.000	0.000	0.000	0.045
SSE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
S	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SSW	0.000	0.000	0.000	0.093	0.089	0.126	0.000	0.000	0.000	0.308
SW	0.000	0.000	0.000	0.046	0.449	0.000	0.000	0.000	0.000	0.495
WSW	0.000	0.000	0.000	0.046	0.045	0.000	0.000	0.000	0.000	0.092
W	0.000	0.000	0.000	0.046	0.089	0.042	0.000	0.000	0.000	0.177
WNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SUBTOTAL	0.000	0.000	0.000	0.232	0.716	0.207	0.038	0.000	0.000	1.193

TOTAL HOURS OF VALID OBSERVATIONS 2156.000  
 TOTAL HOURS OF ELEVATED RELEASES 2016.490  
 TOTAL HOURS OF STABILITY CLASS C 31.740  
 TOTAL HOURS OF ELEVATED STABILITY CLASS C 25.720

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant  
 STABILITY BASED ON DELTA-T BETWEEN 45.30 AND 89.59 METERS  
 WIND DIRECTION MEASURED AT 45.74 METER LEVEL  
 WIND SPEED MEASURED AT 45.74 METER LEVEL  
 EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2002/12/03.

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS D (-1.5< DELTA T<=-0.5 C/100 M)

Browns Ferry Nuclear Plant

PART 2 OF 2 ELEVATED RELEASE MODE

JUL 1, 2002 - SEP 30, 2002

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.371	0.417	0.183	1.129	0.190	0.000	0.000	2.291
NNE	0.000	0.000	0.186	0.325	0.492	1.212	0.457	0.000	0.000	2.671
NE	0.000	0.046	0.139	0.464	0.179	0.487	0.077	0.000	0.000	1.392
ENE	0.000	0.000	0.093	0.093	0.000	0.366	0.000	0.000	0.000	0.551
E	0.000	0.000	0.186	0.186	0.314	0.203	0.037	0.000	0.000	0.926
ESE	0.000	0.000	0.139	0.325	0.403	0.851	0.154	0.000	0.000	1.872
SE	0.000	0.000	0.603	1.020	0.945	1.922	1.624	0.404	0.000	6.519
SSE	0.000	0.000	0.835	2.365	1.609	2.401	1.093	0.173	0.006	8.482
S	0.000	0.000	0.881	1.623	1.512	1.718	0.340	0.013	0.001	6.087
SSW	0.000	0.000	1.160	1.855	0.937	1.229	0.376	0.030	0.000	5.587
SW	0.000	0.046	0.881	1.902	0.905	0.207	0.000	0.000	0.000	3.942
WSW	0.000	0.000	0.557	2.041	0.634	0.000	0.000	0.000	0.000	3.231
W	0.000	0.000	0.417	0.974	1.035	0.417	0.000	0.000	0.000	2.844
WNW	0.000	0.000	0.278	0.510	1.115	0.581	0.038	0.000	0.000	2.523
NW	0.000	0.000	0.371	0.232	0.705	0.942	0.000	0.000	0.000	2.250
NNW	0.000	0.000	0.186	0.093	0.229	0.775	0.075	0.000	0.000	1.357
SUBTOTAL	0.000	0.093	7.282	14.425	11.197	14.440	4.461	0.620	0.007	52.525

TOTAL HOURS OF VALID OBSERVATIONS 2156.000  
 TOTAL HOURS OF ELEVATED RELEASES 2016.490  
 TOTAL HOURS OF STABILITY CLASS D 1182.010  
 TOTAL HOURS OF ELEVATED STABILITY CLASS D 1132.430

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant  
 STABILITY BASED ON DELTA-T BETWEEN 45.30 AND 89.59 METERS  
 WIND DIRECTION MEASURED AT 45.74 METER LEVEL  
 WIND SPEED MEASURED AT 45.74 METER LEVEL  
 EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2002/12/03

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS E (-0.5 < DELTA T <= 1.5 C/100 M)

Browns Ferry Nuclear Plant

PART 2 OF 2 ELEVATED RELEASE MODE

JUL 1, 2002 - SEP 30, 2002

WIND DIRECTION	WIND SPEED(MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.139	0.371	0.313	0.604	0.231	0.000	0.000	1.657
NNE	0.000	0.000	0.417	0.417	0.398	1.661	0.460	0.029	0.000	3.383
NE	0.000	0.000	0.278	0.881	0.442	1.132	0.115	0.000	0.000	2.849
ENE	0.000	0.046	0.232	0.417	0.578	0.488	0.000	0.000	0.000	1.762
E	0.000	0.000	0.464	0.928	0.401	0.283	0.037	0.029	0.000	2.141
ESE	0.000	0.186	0.232	0.788	0.497	1.822	0.113	0.077	0.000	3.715
SE	0.000	0.000	0.278	0.557	0.675	0.528	0.037	0.018	0.000	2.093
SSE	0.000	0.000	0.510	0.742	0.537	0.592	0.151	0.000	0.000	2.532
S	0.000	0.139	0.325	0.788	0.269	0.576	0.038	0.000	0.000	2.135
SSW	0.000	0.000	0.325	0.881	0.130	0.573	0.000	0.000	0.000	1.910
SW	0.000	0.046	0.557	0.742	0.134	0.082	0.000	0.000	0.000	1.561
WSW	0.000	0.000	0.510	0.742	0.089	0.125	0.000	0.000	0.000	1.466
W	0.000	0.139	0.325	0.510	0.134	0.409	0.000	0.000	0.000	1.516
WNW	0.000	0.000	0.139	0.186	0.179	0.081	0.038	0.000	0.000	0.623
NW	0.000	0.000	0.232	0.232	0.224	0.250	0.000	0.034	0.000	0.973
NNW	0.000	0.000	0.093	0.278	0.312	0.166	0.000	0.000	0.000	0.849
SUBTOTAL	0.000	0.557	5.056	9.462	5.312	9.372	1.219	0.187	0.000	31.165

TOTAL HOURS OF VALID OBSERVATIONS 2156.000  
 TOTAL HOURS OF ELEVATED RELEASES 2016.490  
 TOTAL HOURS OF STABILITY CLASS E 717.040  
 TOTAL HOURS OF ELEVATED STABILITY CLASS E 671.910

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant  
 STABILITY BASED ON DELTA-T BETWEEN 45.30 AND 89.59 METERS  
 WIND DIRECTION MEASURED AT 45.74 METER LEVEL  
 WIND SPEED MEASURED AT 45.74 METER LEVEL  
 EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2002/12/03

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS F ( 1.5< DELTA T<= 4.0 C/100 M)

Browns Ferry Nuclear Plant

PART 2 OF 2 ELEVATED RELEASE MODE

JUL 1, 2002 - SEP 30, 2002

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.186	0.139	0.220	0.412	0.000	0.000	0.000	0.957
NNE	0.000	0.000	0.139	0.046	0.134	1.173	0.115	0.000	0.000	1.608
NE	0.000	0.000	0.046	0.139	0.135	0.769	0.038	0.000	0.000	1.128
ENE	0.000	0.046	0.093	0.139	0.179	0.332	0.000	0.000	0.000	0.789
E	0.000	0.000	0.046	0.046	0.177	0.500	0.000	0.000	0.000	0.769
ESE	0.000	0.000	0.046	0.093	0.046	0.359	0.000	0.000	0.000	0.545
SE	0.000	0.000	0.000	0.186	0.044	0.000	0.000	0.000	0.000	0.229
SSE	0.000	0.000	0.093	0.232	0.043	0.000	0.000	0.000	0.000	0.368
S	0.000	0.046	0.000	0.093	0.000	0.000	0.000	0.000	0.000	0.139
SSW	0.000	0.000	0.046	0.000	0.136	0.084	0.000	0.000	0.000	0.267
SW	0.000	0.000	0.046	0.186	0.000	0.000	0.000	0.000	0.000	0.232
WSW	0.000	0.000	0.046	0.000	0.045	0.000	0.000	0.000	0.000	0.092
W	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NW	0.000	0.000	0.000	0.046	0.046	0.000	0.000	0.000	0.000	0.093
NNW	0.000	0.000	0.046	0.139	0.132	0.167	0.000	0.000	0.000	0.484
SUBTOTAL	0.000	0.093	0.835	1.484	1.339	3.795	0.154	0.000	0.000	7.700

TOTAL HOURS OF VALID OBSERVATIONS 2156.000  
 TOTAL HOURS OF ELEVATED RELEASES 2016.490  
 TOTAL HOURS OF STABILITY CLASS F 180.080  
 TOTAL HOURS OF ELEVATED STABILITY CLASS F 166.010

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant  
 STABILITY BASED ON DELTA-T BETWEEN 45.30 AND 89.59 METERS  
 WIND DIRECTION MEASURED AT 45.74 METER LEVEL  
 WIND SPEED MEASURED AT 45.74 METER LEVEL  
 EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2002/12/03

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS G (DELTA T > 4.0 C/100 M)

Browns Ferry Nuclear Plant

PART 2 OF 2 ELEVATED RELEASE MODE

JUL 1, 2002 - SEP 30, 2002

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.000	0.000	0.000	0.161	0.000	0.000	0.000	0.161
NNE	0.000	0.000	0.000	0.046	0.000	0.122	0.000	0.000	0.000	0.168
NE	0.000	0.000	0.000	0.000	0.088	0.082	0.000	0.000	0.000	0.169
ENE	0.000	0.000	0.000	0.000	0.045	0.000	0.000	0.000	0.000	0.045
E	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ESE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SE	0.000	0.000	0.046	0.000	0.000	0.000	0.000	0.000	0.000	0.046
SSE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
S	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SSW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WSW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
W	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SUBTOTAL	0.000	0.000	0.046	0.046	0.133	0.365	0.000	0.000	0.000	0.590

TOTAL HOURS OF VALID OBSERVATIONS 2156.000  
 TOTAL HOURS OF ELEVATED RELEASES 2016.490  
 TOTAL HOURS OF STABILITY CLASS G 16.620  
 TOTAL HOURS OF ELEVATED STABILITY CLASS G 12.730

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant  
 STABILITY BASED ON DELTA-T BETWEEN 45.30 AND 89.59 METERS  
 WIND DIRECTION MEASURED AT 45.74 METER LEVEL  
 WIND SPEED MEASURED AT 45.74 METER LEVEL  
 EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2002/12/03

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

RADIOLOGICAL IMPACT ASSESSMENT  
BROWNS FERRY NUCLEAR PLANT  
JANUARY - DECEMBER 2002

TABLE 21

JOINT FREQUENCY DISTRIBUTION IN PERCENT  
FOR SPLIT LEVEL RELEASES  
(ELEVATED PORTION)  
FOURTH QUARTER

SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS A (DELTA T<=-1.9 C/100 M)

Browns Ferry Nuclear Plant

PART 2 OF 2 ELEVATED RELEASE MODE

OCT 1, 2002 - DEC 31, 2002

WIND DIRECTION	WIND SPEED(MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NNE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ENE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
E	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ESE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SSE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
S	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SSW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WSW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
W	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SUBTOTAL	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

TOTAL HOURS OF VALID OBSERVATIONS 2163.000  
 TOTAL HOURS OF ELEVATED RELEASES 1895.270  
 TOTAL HOURS OF STABILITY CLASS A 4.850  
 TOTAL HOURS OF ELEVATED STABILITY CLASS A 0.000

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant  
 STABILITY BASED ON DELTA-T BETWEEN 45.30 AND 89.59 METERS  
 WIND DIRECTION MEASURED AT 45.74 METER LEVEL  
 WIND SPEED MEASURED AT 45.74 METER LEVEL  
 EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2003/02/07

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS B (-1.9< DELTA T<=-1.7 C/100 M)

Browns Ferry Nuclear Plant

PART 2 OF 2 ELEVATED RELEASE MODE

OCT 1, 2002 - DEC 31, 2002

WIND DIRECTION	WIND SPEED(MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NNE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ENE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
E	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ESE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SSE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
S	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SSW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WSW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
W	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SUBTOTAL	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

TOTAL HOURS OF VALID OBSERVATIONS 2163.000  
 TOTAL HOURS OF ELEVATED RELEASES 1895.270  
 TOTAL HOURS OF STABILITY CLASS B 5.040  
 TOTAL HOURS OF ELEVATED STABILITY CLASS B 0.000

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant  
 STABILITY BASED ON DELTA-T BETWEEN 45.30 AND 89.59 METERS  
 WIND DIRECTION MEASURED AT 45.74 METER LEVEL  
 WIND SPEED MEASURED AT 45.74 METER LEVEL  
 EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2003/02/07

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS



SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS C (-1.7< DELTA T<=-1.5 C/100 M)

Browns Ferry Nuclear Plant

PART 2 OF 2 ELEVATED RELEASE MODE

OCT 1, 2002 - DEC 31, 2002

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NNE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ENE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
E	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ESE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SSE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
S	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SSW	0.000	0.000	0.046	0.000	0.000	0.000	0.000	0.000	0.000	0.046
SW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WSW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
W	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.035	0.000	0.035
WNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NNW	0.000	0.000	0.000	0.046	0.000	0.000	0.000	0.000	0.000	0.046
SUBTOTAL	0.000	0.000	0.046	0.046	0.000	0.000	0.000	0.035	0.000	0.128

TOTAL HOURS OF VALID OBSERVATIONS 2163.000  
 TOTAL HOURS OF ELEVATED RELEASES 1895.270  
 TOTAL HOURS OF STABILITY CLASS C 11.780  
 TOTAL HOURS OF ELEVATED STABILITY CLASS C 2.760

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant  
 STABILITY BASED ON DELTA-T BETWEEN 45.30 AND 89.59 METERS  
 WIND DIRECTION MEASURED AT 45.74 METER LEVEL  
 WIND SPEED MEASURED AT 45.74 METER LEVEL  
 EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2003/02/07

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS D (-1.5 < DELTA T <= -0.5 C/100 M)

Browns Ferry Nuclear Plant

PART 2 OF 2 ELEVATED RELEASE MODE

OCT 1, 2002 - DEC 31, 2002

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.185	0.416	0.669	1.953	1.137	0.167	0.000	4.527
NNE	0.000	0.000	0.139	0.693	0.798	1.460	0.306	0.033	0.000	3.429
NE	0.000	0.000	0.092	0.693	0.671	0.607	0.000	0.043	0.000	2.108
ENE	0.000	0.000	0.139	0.231	0.223	0.208	0.075	0.000	0.000	0.877
E	0.000	0.000	0.231	0.462	0.489	0.164	0.038	0.000	0.000	1.385
ESE	0.000	0.000	0.139	0.416	1.024	0.977	0.112	0.012	0.000	2.680
SE	0.000	0.000	0.231	0.509	0.669	1.344	1.274	0.381	0.042	4.449
SSE	0.000	0.000	0.416	0.601	0.539	1.212	1.317	0.210	0.006	4.302
S	0.000	0.046	0.370	0.370	0.133	1.526	0.712	0.249	0.009	3.413
SSW	0.000	0.000	0.185	0.509	0.223	0.605	0.263	0.120	0.028	1.933
SW	0.000	0.000	0.601	0.462	0.043	0.686	0.152	0.000	0.000	1.944
WSW	0.000	0.000	0.231	0.462	0.136	0.720	0.379	0.000	0.000	1.929
W	0.000	0.046	0.139	0.509	0.404	1.220	0.600	0.078	0.000	2.995
WNW	0.000	0.046	0.185	0.555	0.488	1.510	0.977	0.440	0.008	4.209
NW	0.000	0.046	0.277	0.555	0.713	1.418	1.608	0.267	0.000	4.886
NNW	0.000	0.000	0.277	0.832	0.706	2.250	2.067	0.170	0.000	6.301
SUBTOTAL	0.000	0.185	3.837	8.276	7.928	17.861	11.017	2.170	0.093	51.367

TOTAL HOURS OF VALID OBSERVATIONS 2163.000  
 TOTAL HOURS OF ELEVATED RELEASES 1895.270  
 TOTAL HOURS OF STABILITY CLASS D 1226.710  
 TOTAL HOURS OF ELEVATED STABILITY CLASS D 1111.060

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant  
 STABILITY BASED ON DELTA-T BETWEEN 45.30 AND 89.59 METERS  
 WIND DIRECTION MEASURED AT 45.74 METER LEVEL  
 WIND SPEED MEASURED AT 45.74 METER LEVEL  
 EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2003/02/07

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS E (-0.5< DELTA T<= 1.5 C/100 M)

Browns Ferry Nuclear Plant

PART 2 OF 2 ELEVATED RELEASE MODE

OCT 1, 2002 - DEC 31, 2002

WIND DIRECTION	WIND SPEED(MPH)									TQAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.092	0.139	0.370	0.406	1.061	0.228	0.000	0.000	2.296
NNE	0.000	0.046	0.092	0.416	0.618	1.216	0.075	0.024	0.000	2.487
NE	0.000	0.000	0.092	0.185	0.404	0.243	0.075	0.027	0.000	1.026
ENE	0.000	0.092	0.277	0.324	0.221	0.247	0.037	0.000	0.000	1.198
E	0.000	0.000	0.139	0.231	0.536	0.245	0.037	0.000	0.000	1.188
ESE	0.000	0.000	0.046	0.324	0.571	0.661	0.150	0.012	0.000	1.763
SE	0.000	0.046	0.277	0.416	0.794	1.070	0.564	0.385	0.043	3.595
SSE	0.000	0.000	0.277	0.647	0.675	0.676	0.790	0.410	0.014	3.490
S	0.000	0.046	0.324	0.509	0.496	0.878	0.905	0.254	0.008	3.420
SSW	0.000	0.000	0.370	0.462	0.488	0.406	0.112	0.050	0.012	1.902
SW	0.000	0.046	0.509	0.370	0.353	0.247	0.000	0.000	0.000	1.525
WSW	0.000	0.046	0.231	0.370	0.315	0.408	0.000	0.000	0.000	1.371
W	0.000	0.092	0.092	0.324	0.183	0.119	0.153	0.000	0.000	0.963
WNW	0.000	0.139	0.185	0.092	0.043	0.043	0.037	0.000	0.000	0.540
NW	0.000	0.000	0.139	0.185	0.266	0.200	0.077	0.000	0.000	0.866
NNW	0.000	0.000	0.185	0.231	0.659	1.137	0.227	0.000	0.000	2.439
SUBTOTAL	0.000	0.647	3.375	5.455	7.028	8.857	3.468	1.160	0.078	30.069

TOTAL HOURS OF VALID OBSERVATIONS 2163.000  
 TOTAL HOURS OF ELEVATED RELEASES 1895.270  
 TOTAL HOURS OF STABILITY CLASS E 738.670  
 TOTAL HOURS OF ELEVATED STABILITY CLASS E 650.390

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant  
 STABILITY BASED ON DELTA-T BETWEEN 45.30 AND 89.59 METERS  
 WIND DIRECTION MEASURED AT 45.74 METER LEVEL  
 WIND SPEED MEASURED AT 45.74 METER LEVEL  
 EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2003/02/07

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS F ( 1.5< DELTA T<= 4.0 C/100 M)

Browns Ferry Nuclear Plant

PART 2 OF 2 ELEVATED RELEASE MODE

OCT 1, 2002 - DEC 31, 2002

WIND DIRECTION	CALM	0.6-1.4	1.5-3.4	WIND SPEED(MPH)		7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	TOTAL
				3.5-5.4	5.5-7.4					
N	0.000	0.000	0.000	0.046	0.046	0.413	0.000	0.000	0.000	0.506
NNE	0.000	0.000	0.092	0.092	0.087	0.279	0.000	0.000	0.000	0.551
NE	0.000	0.000	0.000	0.000	0.224	0.126	0.000	0.000	0.000	0.350
ENE	0.000	0.000	0.046	0.000	0.000	0.082	0.000	0.000	0.000	0.128
E	0.000	0.000	0.000	0.000	0.087	0.000	0.000	0.000	0.000	0.087
ESE	0.000	0.000	0.092	0.092	0.046	0.207	0.000	0.000	0.000	0.438
SE	0.000	0.000	0.139	0.139	0.491	0.248	0.000	0.032	0.000	1.048
SSE	0.000	0.000	0.046	0.324	0.088	0.000	0.000	0.000	0.000	0.458
S	0.000	0.000	0.092	0.277	0.228	0.041	0.000	0.000	0.000	0.639
SSW	0.000	0.000	0.046	0.324	0.178	0.042	0.000	0.000	0.000	0.589
SW	0.000	0.000	0.000	0.185	0.000	0.000	0.000	0.000	0.000	0.185
WSW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
W	0.000	0.000	0.000	0.092	0.045	0.000	0.000	0.000	0.000	0.137
WNW	0.000	0.000	0.046	0.000	0.000	0.000	0.000	0.000	0.000	0.046
NW	0.000	0.000	0.000	0.046	0.000	0.000	0.000	0.000	0.000	0.046
NNW	0.000	0.000	0.000	0.000	0.000	0.280	0.000	0.000	0.000	0.280
SUBTOTAL	0.000	0.000	0.601	1.618	1.519	1.718	0.000	0.032	0.000	5.489

TOTAL HOURS OF VALID OBSERVATIONS 2163.000  
 TOTAL HOURS OF ELEVATED RELEASES 1895.270  
 TOTAL HOURS OF STABILITY CLASS F 153.490  
 TOTAL HOURS OF ELEVATED STABILITY CLASS F 118.720

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant  
 STABILITY BASED ON DELTA-T BETWEEN 45.30 AND 89.59 METERS  
 WIND DIRECTION MEASURED AT 45.74 METER LEVEL  
 WIND SPEED MEASURED AT 45.74 METER LEVEL  
 EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2003/02/07

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

SPLIT JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS G (DELTA T > 4.0 C/100 M)

Browns Ferry Nuclear Plant

PART 2 OF 2 ELEVATED RELEASE MODE

OCT 1, 2002 - DEC 31, 2002

WIND DIRECTION	CALM	0.6-1.4	1.5-3.4	WIND SPEED (MPH)		7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	TOTAL
				3.5-5.4	5.5-7.4					
N	0.000	0.000	0.000	0.000	0.000	0.123	0.000	0.000	0.000	0.123
NNE	0.000	0.000	0.000	0.000	0.000	0.039	0.000	0.000	0.000	0.039
NE	0.000	0.000	0.000	0.000	0.131	0.000	0.000	0.000	0.000	0.131
ENE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
E	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ESE	0.000	0.000	0.046	0.000	0.000	0.000	0.000	0.000	0.000	0.046
SE	0.000	0.000	0.000	0.000	0.046	0.000	0.000	0.000	0.000	0.046
SSE	0.000	0.000	0.000	0.092	0.000	0.000	0.000	0.000	0.000	0.092
S	0.000	0.046	0.000	0.046	0.000	0.000	0.000	0.000	0.000	0.092
SSW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WSW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
W	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SUBTOTAL	0.000	0.046	0.046	0.139	0.177	0.162	0.000	0.000	0.000	0.571

TOTAL HOURS OF VALID OBSERVATIONS 2163.000  
 TOTAL HOURS OF ELEVATED RELEASES 1895.270  
 TOTAL HOURS OF STABILITY CLASS G 22.460  
 TOTAL HOURS OF ELEVATED STABILITY CLASS G 12.340

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant  
 STABILITY BASED ON DELTA-T BETWEEN 45.30 AND 89.59 METERS  
 WIND DIRECTION MEASURED AT 45.74 METER LEVEL  
 WIND SPEED MEASURED AT 45.74 METER LEVEL  
 EFFLUENT VELOCITY = 12.60 M/S

DATE PRINTED: 2003/02/07

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

RADIOLOGICAL IMPACT ASSESSMENT  
BROWNS FERRY NUCLEAR PLANT  
JANUARY - DECEMBER 2002

TABLE 22

JOINT FREQUENCY DISTRIBUTION IN PERCENT  
FOR ELEVATED RELEASES  
FIRST QUARTER

JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS A (DELTA T<=-1.9 C/100 M)

Browns Ferry Nuclear Plant

JAN 1, 2002 - MAR 31, 2002

WIND DIRECTION	WIND SPEED(MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NNE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ENE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
E	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ESE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SSE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
S	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SSW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WSW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
W	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SUBTOTAL	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2132
TOTAL HOURS OF STABILITY CLASS A	0
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS A	0
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2120
TOTAL HOURS CALM	0

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant  
 STABILITY BASED ON DELTA-T BETWEEN 45.30 AND 89.59 METERS  
 WIND SPEED AND DIRECTION MEASURED AT 90.29 METER LEVEL

DATE PRINTED: 2002/05/15

MEAN WIND SPEED = 0.00

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

## JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS B (-1.9&lt; DELTA T&lt;=-1.7 C/100 M)

Browns Ferry Nuclear Plant

JAN 1, 2002 - MAR 31, 2002

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NNE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ENE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
E	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ESE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SSE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
S	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SSW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WSW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
W	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SUBTOTAL	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

TOTAL HOURS OF VALID STABILITY OBSERVATIONS

2132

TOTAL HOURS OF STABILITY CLASS B

0

TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS B

0

TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS

2120

TOTAL HOURS CALM

0

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant

STABILITY BASED ON DELTA-T BETWEEN 45.30 AND 89.59 METERS

WIND SPEED AND DIRECTION MEASURED AT 90.29 METER LEVEL

DATE PRINTED: 2002/05/15

MEAN WIND SPEED = 0.00

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS



JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS C (-1.7< DELTA T<=-1.5 C/100 M)

Browns Ferry Nuclear Plant

JAN 1, 2002 - MAR 31, 2002

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NNE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ENE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
E	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ESE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SE	0.000	0.000	0.000	0.047	0.000	0.000	0.000	0.000	0.000	0.047
SSE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
S	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SSW	0.000	0.000	0.000	0.000	0.047	0.000	0.000	0.000	0.000	0.047
SW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WSW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
W	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.047	0.000	0.047
NW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SUBTOTAL	0.000	0.000	0.000	0.047	0.047	0.000	0.000	0.047	0.000	0.142

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2132
TOTAL HOURS OF STABILITY CLASS C	3
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS C	3
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2120
TOTAL HOURS CALM	0

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant  
 STABILITY BASED ON DELTA-T BETWEEN 45.30 AND 89.59 METERS  
 WIND SPEED AND DIRECTION MEASURED AT 90.29 METER LEVEL

DATE PRINTED: 2002/05/15

MEAN WIND SPEED = 10.90

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

## JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS D (-1.5&lt; DELTA T&lt;=-0.5 C/100 M)

Browns Ferry Nuclear Plant

JAN 1, 2002 - MAR 31, 2002

WIND DIRECTION	WIND SPEED(MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.047	0.000	0.189	0.236	2.500	3.208	0.708	0.189	7.075
NNE	0.000	0.000	0.094	0.047	0.377	2.783	1.557	0.142	0.000	5.000
NE	0.000	0.000	0.047	0.142	0.236	0.896	0.236	0.000	0.000	1.557
ENE	0.000	0.000	0.094	0.047	0.047	0.236	0.094	0.000	0.000	0.519
E	0.000	0.000	0.094	0.142	0.142	0.330	0.094	0.047	0.000	0.849
ESE	0.000	0.000	0.142	0.189	0.236	0.660	0.330	0.330	0.047	1.934
SE	0.000	0.000	0.094	0.377	0.519	0.425	0.189	0.236	0.236	2.075
SSE	0.000	0.000	0.236	0.377	0.283	0.377	0.519	0.613	0.000	2.406
S	0.000	0.047	0.283	0.142	0.047	0.660	1.840	0.896	0.283	4.198
SSW	0.000	0.000	0.142	0.330	0.094	0.708	1.462	0.566	0.142	3.443
SW	0.000	0.000	0.236	0.236	0.047	0.472	0.566	0.142	0.000	1.698
WSW	0.000	0.000	0.094	0.142	0.236	0.377	0.236	0.236	0.000	1.321
W	0.000	0.000	0.094	0.142	0.425	0.991	0.708	0.377	0.094	2.830
WNW	0.000	0.000	0.047	0.189	0.283	1.509	2.170	1.415	0.566	6.179
NW	0.000	0.000	0.047	0.094	0.189	0.849	2.170	1.934	0.236	5.519
NNW	0.000	0.000	0.000	0.047	0.142	1.509	2.689	0.566	0.142	5.094
SUBTOTAL	0.000	0.094	1.745	2.830	3.538	15.283	18.066	8.208	1.934	51.698

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2132
TOTAL HOURS OF STABILITY CLASS D	1100
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS D	1096
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2120
TOTAL HOURS CALM	0

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant  
 STABILITY BASED ON DELTA-T BETWEEN 45.30 AND 89.59 METERS  
 WIND SPEED AND DIRECTION MEASURED AT 90.29 METER LEVEL

DATE PRINTED: 2002/05/15

MEAN WIND SPEED = 13.42

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

## JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS E (-0.5&lt; DELTA T&lt;= 1.5 C/100 M)

Browns Ferry Nuclear Plant

JAN 1, 2002 - MAR 31, 2002

WIND DIRECTION	CALM	0.6-1.4	1.5-3.4	WIND SPEED(MPH)						>=24.5	TOTAL
				3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4			
N	0.000	0.000	0.094	0.047	0.094	0.896	1.321	0.047	0.000		2.500
NNE	0.000	0.000	0.047	0.142	0.189	0.613	1.038	0.094	0.000		2.123
NE	0.000	0.000	0.236	0.142	0.142	0.472	0.377	0.047	0.000		1.415
ENE	0.000	0.000	0.142	0.236	0.094	0.660	0.425	0.047	0.000		1.604
E	0.000	0.000	0.094	0.094	0.142	0.472	0.142	0.000	0.000		0.943
ESE	0.000	0.000	0.142	0.094	0.189	0.472	0.236	0.142	0.000		1.274
SE	0.000	0.000	0.189	0.047	0.283	1.038	0.755	0.472	0.330		3.113
SSE	0.000	0.000	0.000	0.142	0.142	1.462	2.453	1.509	0.566		6.274
S	0.000	0.000	0.047	0.189	0.283	2.594	4.340	2.075	0.896		10.425
SSW	0.000	0.000	0.142	0.142	0.377	0.991	1.462	0.519	0.283		3.915
SW	0.000	0.000	0.094	0.189	0.189	0.566	0.708	0.047	0.000		1.792
WSW	0.000	0.000	0.047	0.094	0.189	0.283	0.283	0.000	0.000		0.896
W	0.000	0.000	0.047	0.094	0.000	0.613	0.330	0.000	0.000		1.085
WNW	0.000	0.000	0.000	0.094	0.094	0.472	0.189	0.000	0.000		0.849
NW	0.000	0.000	0.047	0.142	0.330	0.189	0.377	0.142	0.000		1.226
NNW	0.000	0.000	0.047	0.047	0.236	0.472	0.849	0.094	0.000		1.745
SUBTOTAL	0.000	0.000	1.415	1.934	2.972	12.264	15.283	5.236	2.075		41.179

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2132
TOTAL HOURS OF STABILITY CLASS E	881
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS E	873
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2120
TOTAL HOURS CALM	0

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant  
 STABILITY BASED ON DELTA-T BETWEEN 45.30 AND 89.59 METERS  
 WIND SPEED AND DIRECTION MEASURED AT 90.29 METER LEVEL

DATE PRINTED: 2002/05/15

MEAN WIND SPEED = 13.54

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS F ( 1.5< DELTA T<= 4.0 C/100 M)

Browns Ferry Nuclear Plant

JAN 1, 2002 - MAR 31, 2002

WIND DIRECTION	WIND SPEED(MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.000	0.000	0.047	0.094	0.094	0.000	0.000	0.236
NNE	0.000	0.000	0.000	0.000	0.000	0.094	0.142	0.000	0.000	0.236
NE	0.000	0.000	0.047	0.047	0.047	0.189	0.236	0.047	0.000	0.613
ENE	0.000	0.000	0.000	0.047	0.000	0.189	0.047	0.000	0.000	0.283
E	0.000	0.000	0.047	0.094	0.142	0.000	0.047	0.000	0.000	0.330
ESE	0.000	0.000	0.000	0.000	0.000	0.094	0.047	0.000	0.000	0.142
SE	0.000	0.000	0.094	0.047	0.094	0.425	0.142	0.000	0.000	0.802
SSE	0.000	0.000	0.000	0.047	0.047	0.236	0.472	0.000	0.000	0.802
S	0.000	0.000	0.000	0.000	0.094	0.425	0.094	0.094	0.000	0.708
SSW	0.000	0.000	0.000	0.047	0.094	0.425	0.142	0.000	0.000	0.708
SW	0.000	0.000	0.000	0.000	0.047	0.000	0.094	0.000	0.000	0.142
WSW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
W	0.000	0.000	0.000	0.000	0.047	0.000	0.000	0.000	0.000	0.047
WNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NNW	0.000	0.000	0.000	0.000	0.000	0.047	0.047	0.047	0.000	0.142
SUBTOTAL	0.000	0.000	0.189	0.330	0.660	2.217	1.604	0.189	0.000	5.189

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2132
TOTAL HOURS OF STABILITY CLASS F	110
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS F	110
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2120
TOTAL HOURS CALM	0

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant  
 STABILITY BASED ON DELTA-T BETWEEN 45.30 AND 89.59 METERS  
 WIND SPEED AND DIRECTION MEASURED AT 90.29 METER LEVEL

DATE PRINTED: 2002/05/15

MEAN WIND SPEED = 10.97

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

## JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS G (DELTA T &gt; 4.0 C/100 M)

Browns Ferry Nuclear Plant

JAN 1, 2002 - MAR 31, 2002

WIND DIRECTION	WIND SPEED(MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NNE	0.000	0.000	0.000	0.000	0.000	0.094	0.094	0.000	0.000	0.189
NE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ENE	0.000	0.000	0.000	0.000	0.094	0.000	0.047	0.000	0.000	0.142
E	0.000	0.000	0.000	0.000	0.047	0.000	0.047	0.000	0.000	0.094
ESE	0.000	0.000	0.000	0.000	0.047	0.142	0.047	0.000	0.000	0.236
SE	0.000	0.000	0.000	0.000	0.047	0.377	0.094	0.047	0.000	0.566
SSE	0.000	0.000	0.000	0.047	0.000	0.094	0.000	0.000	0.000	0.142
S	0.000	0.000	0.000	0.094	0.047	0.000	0.047	0.000	0.000	0.189
SSW	0.000	0.000	0.000	0.000	0.094	0.000	0.047	0.047	0.000	0.189
SW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WSW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
W	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NNW	0.000	0.000	0.000	0.000	0.000	0.047	0.000	0.000	0.000	0.047
SUBTOTAL	0.000	0.000	0.000	0.142	0.377	0.755	0.425	0.094	0.000	1.792

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2132
TOTAL HOURS OF STABILITY CLASS G	38
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS G	38
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2120
TOTAL HOURS CALM	0

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant  
STABILITY BASED ON DELTA-T BETWEEN 45.30 AND 89.59 METERS  
WIND SPEED AND DIRECTION MEASURED AT 90.29 METER LEVEL

DATE PRINTED: 2002/05/15

MEAN WIND SPEED = 10.36

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

RADIOLOGICAL IMPACT ASSESSMENT  
BROWNS FERRY NUCLEAR PLANT  
JANUARY - DECEMBER 2002

TABLE 23

JOINT FREQUENCY DISTRIBUTION IN PERCENT  
FOR ELEVATED RELEASES  
SECOND QUARTER

## JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS A (DELTA T&lt;=-1.9 C/100 M)

Browns Ferry Nuclear Plant

APR 1, 2002 - JUN 30, 2002

WIND DIRECTION	WIND SPEED(MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NNE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ENE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
E	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ESE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SSE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
S	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SSW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WSW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
W	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SUBTOTAL	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

TOTAL HOURS OF VALID STABILITY OBSERVATIONS

2145

TOTAL HOURS OF STABILITY CLASS A

0

TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS A

0

TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS

2134

TOTAL HOURS CALM

0

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant  
 STABILITY BASED ON DELTA-T BETWEEN 45.30 AND 89.59 METERS  
 WIND SPEED AND DIRECTION MEASURED AT 90.29 METER LEVEL

DATE PRINTED: 2002/08/06

MEAN WIND SPEED = 0.00

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR  
STABILITY CLASS B (-1.9< DELTA T<=-1.7 C/100 M)

Browns Ferry Nuclear Plant

APR 1, 2002 - JUN 30, 2002

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NNE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ENE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
E	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ESE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SSE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
S	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SSW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WSW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
W	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SUBTOTAL	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2145
TOTAL HOURS OF STABILITY CLASS B	0
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS B	0
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2134
TOTAL HOURS CALM	0

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant  
STABILITY BASED ON DELTA-T BETWEEN 45.30 AND 89.59 METERS  
WIND SPEED AND DIRECTION MEASURED AT 90.29 METER LEVEL

DATE PRINTED: 2002/08/06

MEAN WIND SPEED = 0.00

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS



JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR  
STABILITY CLASS C (-1.7< DELTA T<=-1.5 C/100 M)

Browns Ferry Nuclear Plant

APR 1, 2002 - JUN 30, 2002

WIND DIRECTION	WIND SPEED(MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NNE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ENE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
E	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ESE	0.000	0.000	0.000	0.000	0.000	0.047	0.000	0.000	0.000	0.047
SE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SSE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
S	0.000	0.000	0.000	0.047	0.000	0.000	0.000	0.000	0.000	0.047
SSW	0.000	0.000	0.000	0.000	0.000	0.047	0.000	0.000	0.000	0.047
SW	0.000	0.000	0.000	0.047	0.000	0.047	0.000	0.000	0.000	0.094
WSW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
W	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.047	0.047
NW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SUBTOTAL	0.000	0.000	0.000	0.094	0.000	0.141	0.000	0.000	0.047	0.281

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2145
TOTAL HOURS OF STABILITY CLASS C	6
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS C	6
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2134
TOTAL HOURS CALM	0

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant  
STABILITY BASED ON DELTA-T BETWEEN 45.30 AND 89.59 METERS  
WIND SPEED AND DIRECTION MEASURED AT 90.29 METER LEVEL

DATE PRINTED: 2002/08/06

MEAN WIND SPEED = 12.33

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

## JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS D (-1.5&lt; DELTA T&lt;=-0.5 C/100 M)

Browns Ferry Nuclear Plant

APR 1, 2002 - JUN 30, 2002

WIND DIRECTION	WIND SPEED(MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.000	0.141	0.281	0.984	2.015	1.172	0.047	4.639
NNE	0.000	0.000	0.047	0.187	0.234	1.687	1.265	0.281	0.000	3.702
NE	0.000	0.000	0.000	0.187	0.141	0.750	0.328	0.000	0.000	1.406
ENE	0.000	0.000	0.047	0.141	0.187	0.375	0.000	0.000	0.000	0.750
E	0.000	0.000	0.047	0.000	0.000	0.281	0.047	0.000	0.000	0.375
ESE	0.000	0.000	0.094	0.141	0.515	3.140	1.781	0.234	0.000	5.904
SE	0.000	0.000	0.094	0.422	0.890	2.156	1.968	1.500	0.187	7.216
SSE	0.000	0.000	0.234	0.515	0.703	1.687	1.218	0.422	0.281	5.061
S	0.000	0.000	0.375	0.328	0.422	1.359	1.453	0.750	0.141	4.827
SSW	0.000	0.000	0.187	0.656	0.281	1.640	1.781	1.125	0.187	5.858
SW	0.000	0.000	0.515	0.515	0.234	0.984	1.312	0.375	0.000	3.936
WSW	0.000	0.000	0.375	0.703	0.281	0.141	0.141	0.281	0.094	2.015
W	0.000	0.000	0.375	0.422	0.422	0.281	0.047	0.000	0.000	1.546
WNW	0.000	0.000	0.047	0.515	0.515	0.937	0.187	0.000	0.047	2.249
NW	0.000	0.000	0.047	0.469	0.609	1.500	0.562	0.094	0.094	3.374
NNW	0.000	0.047	0.000	0.047	0.187	0.609	0.656	0.469	0.047	2.062
SUBTOTAL	0.000	0.047	2.484	5.389	5.904	18.510	14.761	6.701	1.125	54.920

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2145
TOTAL HOURS OF STABILITY CLASS D	1180
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS D	1172
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2134
TOTAL HOURS CALM	0

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant  
 STABILITY BASED ON DELTA-T BETWEEN 45.30 AND 89.59 METERS  
 WIND SPEED AND DIRECTION MEASURED AT 90.29 METER LEVEL

DATE PRINTED: 2002/08/06

MEAN WIND SPEED = 11.82

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

## JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS E (-0.5&lt; DELTA T&lt;= 1.5 C/100 M)

Browns Ferry Nuclear Plant

APR 1, 2002 - JUN 30, 2002

WIND DIRECTION	CALM	0.6-1.4	1.5-3.4	WIND SPEED(MPH)							TOTAL
				3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5		
N	0.000	0.000	0.000	0.047	0.234	0.187	0.609	0.281	0.000		1.359
NNE	0.000	0.047	0.047	0.000	0.328	0.890	0.843	0.141	0.000		2.296
NE	0.000	0.000	0.000	0.094	0.234	0.843	0.656	0.234	0.000		2.062
ENE	0.000	0.000	0.000	0.000	0.094	0.609	0.328	0.187	0.000		1.218
E	0.000	0.000	0.141	0.094	0.281	0.656	0.234	0.000	0.000		1.406
ESE	0.000	0.047	0.000	0.234	0.281	1.359	1.734	0.000	0.000		3.655
SE	0.000	0.000	0.141	0.281	0.422	1.453	1.828	0.328	0.141		4.592
SSE	0.000	0.000	0.187	0.234	0.422	1.687	0.984	0.562	0.422		4.499
S	0.000	0.000	0.234	0.094	0.234	1.500	1.500	0.422	0.094		4.077
SSW	0.000	0.047	0.000	0.141	0.375	0.515	1.172	0.656	0.000		2.905
SW	0.000	0.047	0.234	0.094	0.234	0.469	0.281	0.047	0.000		1.406
WSW	0.000	0.000	0.328	0.234	0.094	0.515	0.187	0.000	0.000		1.359
W	0.000	0.047	0.141	0.234	0.187	0.281	0.141	0.000	0.000		1.031
WNW	0.000	0.000	0.187	0.375	0.281	0.328	0.047	0.000	0.000		1.218
NW	0.000	0.047	0.234	0.094	0.141	0.141	0.234	0.047	0.000		0.937
NNW	0.000	0.000	0.094	0.047	0.141	0.281	0.234	0.047	0.000		0.843
SUBTOTAL	0.000	0.281	1.968	2.296	3.983	11.715	11.012	2.952	0.656		34.864

TOTAL HOURS OF VALID STABILITY OBSERVATIONS

2145

TOTAL HOURS OF STABILITY CLASS E

747

TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS E

744

TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS

2134

TOTAL HOURS CALM

0

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant

STABILITY BASED ON DELTA-T BETWEEN 45.30 AND 89.59 METERS

WIND SPEED AND DIRECTION MEASURED AT 90.29 METER LEVEL

MEAN WIND SPEED = 11.68

DATE PRINTED: 2002/08/06

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

## JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS F ( 1.5&lt; DELTA T&lt;= 4.0 C/100 M)

Browns Ferry Nuclear Plant

APR 1, 2002 - JUN 30, 2002

WIND DIRECTION	WIND SPEED(MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.000	0.047	0.000	0.047	0.000	0.000	0.000	0.094
NNE	0.000	0.000	0.000	0.000	0.000	0.187	0.422	0.094	0.000	0.703
NE	0.000	0.000	0.000	0.047	0.000	0.328	0.234	0.141	0.000	0.750
ENE	0.000	0.000	0.094	0.000	0.047	0.281	0.375	0.141	0.000	0.937
E	0.000	0.000	0.047	0.047	0.000	0.469	0.141	0.000	0.000	0.703
ESE	0.000	0.000	0.000	0.000	0.047	0.469	0.234	0.000	0.000	0.750
SE	0.000	0.000	0.000	0.094	0.094	0.375	0.187	0.000	0.000	0.750
SSE	0.000	0.000	0.047	0.000	0.234	0.187	0.515	0.000	0.000	0.984
S	0.000	0.000	0.047	0.047	0.000	0.422	0.562	0.000	0.000	1.078
SSW	0.000	0.000	0.047	0.047	0.141	0.234	0.187	0.000	0.000	0.656
SW	0.000	0.000	0.000	0.000	0.047	0.422	0.234	0.000	0.000	0.703
WSW	0.000	0.000	0.000	0.094	0.000	0.094	0.000	0.000	0.000	0.187
W	0.000	0.000	0.047	0.094	0.000	0.047	0.000	0.000	0.000	0.187
WNW	0.000	0.000	0.000	0.047	0.141	0.187	0.000	0.000	0.000	0.375
NW	0.000	0.000	0.000	0.000	0.000	0.000	0.047	0.000	0.000	0.047
NNW	0.000	0.000	0.000	0.094	0.047	0.047	0.047	0.000	0.000	0.234
SUBTOTAL	0.000	0.000	0.328	0.656	0.797	3.796	3.187	0.375	0.000	9.138

TOTAL HOURS OF VALID STABILITY OBSERVATIONS

2145

TOTAL HOURS OF STABILITY CLASS F

195

TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS F

195

TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS

2134

TOTAL HOURS CALM

0

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant  
 STABILITY BASED ON DELTA-T BETWEEN 45.30 AND 89.59 METERS  
 WIND SPEED AND DIRECTION MEASURED AT 90.29 METER LEVEL

DATE PRINTED: 2002/08/06

MEAN WIND SPEED = 11.21

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS G (DELTA T > 4.0 C/100 M)

Browns Ferry Nuclear Plant

APR 1, 2002 - JUN 30, 2002

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NNE	0.000	0.000	0.000	0.000	0.047	0.047	0.000	0.000	0.000	0.094
NE	0.000	0.000	0.000	0.000	0.000	0.094	0.000	0.000	0.000	0.094
ENE	0.000	0.000	0.000	0.000	0.000	0.047	0.000	0.000	0.000	0.047
E	0.000	0.000	0.000	0.000	0.000	0.000	0.141	0.000	0.000	0.141
ESE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SSE	0.000	0.000	0.000	0.000	0.047	0.000	0.000	0.000	0.000	0.047
S	0.000	0.000	0.000	0.000	0.094	0.000	0.047	0.000	0.000	0.141
SSW	0.000	0.000	0.000	0.094	0.000	0.000	0.000	0.000	0.000	0.094
SW	0.000	0.000	0.047	0.000	0.047	0.000	0.000	0.000	0.000	0.094
WSW	0.000	0.000	0.000	0.047	0.000	0.000	0.000	0.000	0.000	0.047
W	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SUBTOTAL	0.000	0.000	0.047	0.141	0.234	0.187	0.187	0.000	0.000	0.797

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2145
TOTAL HOURS OF STABILITY CLASS G	17
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS G	17
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2134
TOTAL HOURS CALM	0

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant  
 STABILITY BASED ON DELTA-T BETWEEN 45.30 AND 89.59 METERS  
 WIND SPEED AND DIRECTION MEASURED AT 90.29 METER LEVEL

DATE PRINTED: 2002/08/06

MEAN WIND SPEED = 8.85

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

RADIOLOGICAL IMPACT ASSESSMENT  
BROWNS FERRY NUCLEAR PLANT  
JANUARY - DECEMBER 2002

TABLE 24

JOINT FREQUENCY DISTRIBUTION IN PERCENT  
FOR ELEVATED RELEASES  
THIRD QUARTER

## JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS A (DELTA T&lt;=-1.9 C/100 M)

Browns Ferry Nuclear Plant

JUL 1, 2002 - SEP 30, 2002

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NNE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ENE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
E	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ESE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SSE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
S	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SSW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SW	0.000	0.000	0.000	0.000	0.000	0.139	0.000	0.000	0.000	0.139
WSW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
W	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SUBTOTAL	0.000	0.000	0.000	0.000	0.000	0.139	0.000	0.000	0.000	0.139

TOTAL HOURS OF VALID STABILITY OBSERVATIONS

2189

TOTAL HOURS OF STABILITY CLASS A

3

TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS A

3

TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS

2157

TOTAL HOURS CALM

0

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant

STABILITY BASED ON DELTA-T BETWEEN 45.30 AND 89.59 METERS

WIND SPEED AND DIRECTION MEASURED AT 90.29 METER LEVEL

DATE PRINTED: 2002/12/03

MEAN WIND SPEED = 9.70

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS B (-1.9< DELTA T<=-1.7 C/100 M)

Browns Ferry Nuclear Plant

JUL 1, 2002 - SEP 30, 2002

WIND DIRECTION	CALM	0.6-1.4	1.5-3.4	WIND SPEED(MPH)							TOTAL
				3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5		
N	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		0.000
NNE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		0.000
NE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		0.000
ENE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		0.000
E	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		0.000
ESE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		0.000
SE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		0.000
SSE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		0.000
S	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		0.000
SSW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		0.000
SW	0.000	0.000	0.000	0.046	0.000	0.185	0.000	0.000	0.000		0.232
WSW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		0.000
W	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		0.000
WNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		0.000
NW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		0.000
NNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		0.000
SUBTOTAL	0.000	0.000	0.000	0.046	0.000	0.185	0.000	0.000	0.000		0.232

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2189
TOTAL HOURS OF STABILITY CLASS B	5
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS B	5
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2157
TOTAL HOURS CALM	0

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant  
 STABILITY BASED ON DELTA-T BETWEEN 45.30 AND 89.59 METERS  
 WIND SPEED AND DIRECTION MEASURED AT 90.29 METER LEVEL

DATE PRINTED: 2002/12/03

MEAN WIND SPEED = 8.12

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS



JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS C (-1.7< DELTA T<=-1.5 C/100 M)

Browns Ferry Nuclear Plant

JUL 1, 2002 - SEP 30, 2002

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.000	0.000	0.000	0.000	0.093	0.000	0.000	0.093
NNE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ENE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
E	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ESE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SE	0.000	0.000	0.000	0.000	0.046	0.000	0.000	0.000	0.000	0.046
SSE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
S	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SSW	0.000	0.000	0.000	0.046	0.046	0.278	0.000	0.000	0.000	0.371
SW	0.000	0.000	0.000	0.000	0.139	0.325	0.000	0.000	0.000	0.464
WSW	0.000	0.000	0.000	0.000	0.046	0.046	0.000	0.000	0.000	0.093
W	0.000	0.000	0.000	0.000	0.093	0.093	0.000	0.000	0.000	0.185
WNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SUBTOTAL	0.000	0.000	0.000	0.046	0.371	0.742	0.093	0.000	0.000	1.252

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2189
TOTAL HOURS OF STABILITY CLASS C	27
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS C	27
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2157
TOTAL HOURS CALM	0

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant  
 STABILITY BASED ON DELTA-T BETWEEN 45.30 AND 89.59 METERS  
 WIND SPEED AND DIRECTION MEASURED AT 90.29 METER LEVEL

DATE PRINTED: 2002/12/03

MEAN WIND SPEED = 8.55

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR  
STABILITY CLASS D (-1.5< DELTA T<=-0.5 C/100 M)

Browns Ferry Nuclear Plant

JUL 1, 2002 - SEP 30, 2002

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.325	0.556	0.139	0.742	0.974	0.000	0.000	2.735
NNE	0.000	0.000	0.185	0.232	0.464	0.974	0.881	0.046	0.000	2.782
NE	0.000	0.000	0.093	0.185	0.232	0.278	0.371	0.000	0.000	1.159
ENE	0.000	0.000	0.232	0.232	0.000	0.185	0.325	0.000	0.000	0.974
E	0.000	0.000	0.139	0.093	0.139	0.278	0.139	0.046	0.000	0.834
ESE	0.000	0.000	0.093	0.325	0.278	1.066	0.881	0.046	0.000	2.689
SE	0.000	0.000	0.371	1.020	1.066	1.854	2.086	1.066	0.139	7.603
SSE	0.000	0.000	0.742	1.298	1.669	2.411	1.391	0.649	0.046	8.206
S	0.000	0.046	0.788	1.344	0.834	2.364	0.649	0.139	0.093	6.259
SSW	0.000	0.000	1.020	0.834	0.881	1.808	0.834	0.232	0.046	5.656
SW	0.000	0.000	0.834	1.113	0.742	1.484	0.046	0.000	0.000	4.219
WSW	0.000	0.000	0.371	1.623	1.113	0.417	0.000	0.000	0.000	3.523
W	0.000	0.000	0.232	0.742	1.205	0.881	0.093	0.000	0.000	3.153
WNW	0.000	0.000	0.417	0.464	0.927	1.113	0.000	0.000	0.000	2.921
NW	0.000	0.000	0.185	0.232	0.464	1.205	0.093	0.000	0.000	2.179
NNW	0.000	0.046	0.185	0.093	0.232	0.603	0.325	0.046	0.000	1.530
SUBTOTAL	0.000	0.093	6.212	10.385	10.385	17.663	9.087	2.272	0.325	56.421

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2189
TOTAL HOURS OF STABILITY CLASS D	1233
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS D	1217
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2157
TOTAL HOURS CALM	0

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant  
STABILITY BASED ON DELTA-T BETWEEN 45.30 AND 89.59 METERS  
WIND SPEED AND DIRECTION MEASURED AT 90.29 METER LEVEL

DATE PRINTED: 2002/12/03

MEAN WIND SPEED = 8.71

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

## JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS E (-0.5&lt; DELTA T&lt;= 1.5 C/100 M)

Browns Ferry Nuclear Plant

JUL 1, 2002 - SEP 30, 2002

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.185	0.371	0.139	0.417	0.695	0.046	0.000	1.854
NNE	0.000	0.000	0.139	0.093	0.325	0.742	1.484	0.371	0.000	3.153
NE	0.000	0.000	0.139	0.232	0.371	0.742	1.020	0.278	0.000	2.782
ENE	0.000	0.000	0.046	0.185	0.325	0.834	0.556	0.000	0.000	1.947
E	0.000	0.000	0.232	0.325	0.046	0.371	0.185	0.000	0.185	1.344
ESE	0.000	0.000	0.232	0.371	0.325	1.113	0.974	0.093	0.093	3.199
SE	0.000	0.093	0.371	0.927	0.649	0.974	0.788	0.000	0.046	3.848
SSE	0.000	0.000	0.139	0.510	0.603	0.927	0.139	0.046	0.000	2.364
S	0.000	0.139	0.093	0.464	0.556	0.603	0.417	0.000	0.000	2.272
SSW	0.000	0.000	0.371	0.556	0.325	0.464	0.603	0.000	0.000	2.318
SW	0.000	0.000	0.232	0.649	0.278	0.556	0.046	0.000	0.000	1.762
WSW	0.000	0.000	0.232	0.649	0.278	0.232	0.046	0.000	0.000	1.437
W	0.000	0.000	0.232	0.742	0.464	0.417	0.139	0.000	0.000	1.994
WNW	0.000	0.000	0.046	0.139	0.232	0.139	0.232	0.000	0.000	0.788
NW	0.000	0.046	0.139	0.139	0.232	0.510	0.046	0.046	0.000	1.159
NNW	0.000	0.000	0.139	0.278	0.139	0.232	0.046	0.000	0.000	0.834
SUBTOTAL	0.000	0.278	2.967	6.630	5.285	9.272	7.418	0.881	0.325	33.055

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2189
TOTAL HOURS OF STABILITY CLASS E	726
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS E	713
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2157
TOTAL HOURS CALM	0

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant  
STABILITY BASED ON DELTA-T BETWEEN 45.30 AND 89.59 METERS  
WIND SPEED AND DIRECTION MEASURED AT 90.29 METER LEVEL

DATE PRINTED: 2002/12/03

MEAN WIND SPEED = 9.05

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS F ( 1.5< DELTA T<= 4.0 C/100 M)

Browns Ferry Nuclear Plant

JUL 1, 2002 - SEP 30, 2002

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.000	0.093	0.000	0.371	0.371	0.000	0.000	0.834
NNE	0.000	0.000	0.000	0.139	0.139	0.232	0.927	0.185	0.000	1.623
NE	0.000	0.000	0.000	0.046	0.000	0.278	0.556	0.325	0.000	1.205
ENE	0.000	0.000	0.093	0.046	0.000	0.185	0.417	0.046	0.000	0.788
E	0.000	0.000	0.046	0.046	0.185	0.417	0.093	0.000	0.000	0.788
ESE	0.000	0.046	0.046	0.000	0.185	0.278	0.371	0.000	0.000	0.927
SE	0.000	0.000	0.000	0.093	0.093	0.093	0.139	0.000	0.000	0.417
SSE	0.000	0.046	0.046	0.046	0.185	0.093	0.000	0.000	0.000	0.417
S	0.000	0.000	0.046	0.000	0.139	0.139	0.000	0.000	0.000	0.325
SSW	0.000	0.000	0.000	0.000	0.093	0.139	0.093	0.000	0.000	0.325
SW	0.000	0.000	0.046	0.046	0.000	0.093	0.000	0.000	0.000	0.185
WSW	0.000	0.000	0.000	0.046	0.000	0.000	0.000	0.000	0.000	0.046
W	0.000	0.000	0.000	0.046	0.000	0.000	0.000	0.000	0.000	0.046
WNW	0.000	0.000	0.000	0.000	0.000	0.046	0.000	0.000	0.000	0.046
NW	0.000	0.000	0.000	0.000	0.000	0.093	0.000	0.000	0.000	0.093
NNW	0.000	0.000	0.000	0.046	0.046	0.000	0.093	0.000	0.000	0.185
SUBTOTAL	0.000	0.093	0.325	0.695	1.066	2.457	3.060	0.556	0.000	8.252

TOTAL HOURS OF VALID STABILITY OBSERVATIONS

2189

TOTAL HOURS OF STABILITY CLASS F

180

TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS F

178

TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS

2157

TOTAL HOURS CALM

0

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant

STABILITY BASED ON DELTA-T BETWEEN 45.30 AND 89.59 METERS

WIND SPEED AND DIRECTION MEASURED AT 90.29 METER LEVEL

DATE PRINTED: 2002/12/03

MEAN WIND SPEED = 11.12

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR  
STABILITY CLASS G (DELTA T > 4.0 C/100 M)

Browns Ferry Nuclear Plant

JUL 1, 2002 - SEP 30, 2002

WIND DIRECTION	WIND SPEED(MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.000	0.000	0.000	0.000	0.046	0.046	0.000	0.093
NNE	0.000	0.000	0.000	0.000	0.000	0.000	0.046	0.046	0.000	0.093
NE	0.000	0.000	0.000	0.000	0.000	0.000	0.139	0.000	0.000	0.139
ENE	0.000	0.000	0.000	0.000	0.000	0.046	0.000	0.000	0.000	0.046
E	0.000	0.000	0.000	0.000	0.000	0.185	0.000	0.000	0.000	0.185
ESE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SE	0.000	0.000	0.046	0.000	0.000	0.000	0.000	0.000	0.000	0.046
SSE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
S	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SSW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WSW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
W	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.046	0.000	0.046
SUBTOTAL	0.000	0.000	0.046	0.000	0.000	0.232	0.232	0.139	0.000	0.649

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2189
TOTAL HOURS OF STABILITY CLASS G	15
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS G	14
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2157
TOTAL HOURS CALM	0

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant  
STABILITY BASED ON DELTA-T BETWEEN 45.30 AND 89.59 METERS  
WIND SPEED AND DIRECTION MEASURED AT 90.29 METER LEVEL

DATE PRINTED: 2002/12/03

MEAN WIND SPEED = 13.66

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**RADIOLOGICAL IMPACT ASSESSMENT  
BROWNS FERRY NUCLEAR PLANT  
JANUARY - DECEMBER 2002**

**TABLE 25**

**JOINT FREQUENCY DISTRIBUTION IN PERCENT  
FOR ELEVATED RELEASES  
FOURTH QUARTER**

## JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS A (DELTA T&lt;=-1.9 C/100 M)

Browns Ferry Nuclear Plant

OCT 1, 2002 - DEC 31, 2002

WIND DIRECTION	WIND SPEED(MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NNE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ENE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
E	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ESE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SSE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
S	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SSW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WSW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
W	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SUBTOTAL	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

TOTAL HOURS OF VALID STABILITY OBSERVATIONS

2186

TOTAL HOURS OF STABILITY CLASS A

0

TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS A

0

TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS

2176

TOTAL HOURS CALM

0

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant

STABILITY BASED ON DELTA-T BETWEEN 45.30 AND 89.59 METERS

WIND SPEED AND DIRECTION MEASURED AT 90.29 METER LEVEL

DATE PRINTED: 2003/02/07

MEAN WIND SPEED = 0.00

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS B (-1.9< DELTA T<=-1.7 C/100 M)

Browns Ferry Nuclear Plant

OCT 1, 2002 - DEC 31, 2002

WIND DIRECTION	CALM	0.6-1.4	1.5-3.4	WIND SPEED(MPH)						>=24.5	TOTAL
				3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4			
N	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NNE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ENE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
E	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ESE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SSE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
S	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SSW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WSW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
W	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SUBTOTAL	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2186
TOTAL HOURS OF STABILITY CLASS B	0
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS B	0
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2176
TOTAL HOURS CALM	0

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant  
 STABILITY BASED ON DELTA-T BETWEEN 45.30 AND 89.59 METERS  
 WIND SPEED AND DIRECTION MEASURED AT 90.29 METER LEVEL

DATE PRINTED: 2003/02/07

MEAN WIND SPEED = 0.00

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS



## JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS C (-1.7&lt; DELTA T&lt;=-1.5 C/100 M)

Browns Ferry Nuclear Plant

OCT 1, 2002 - DEC 31, 2002

WIND DIRECTION	WIND SPEED(MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NNE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ENE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
E	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ESE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SSE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
S	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SSW	0.000	0.000	0.000	0.046	0.000	0.000	0.000	0.000	0.000	0.046
SW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WSW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
W	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.046	0.000	0.046
WNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NNW	0.000	0.000	0.000	0.000	0.046	0.000	0.000	0.000	0.000	0.046
SUBTOTAL	0.000	0.000	0.000	0.046	0.046	0.000	0.000	0.046	0.000	0.138

TOTAL HOURS OF VALID STABILITY OBSERVATIONS

2186

TOTAL HOURS OF STABILITY CLASS C

3

TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS C

3

TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS

2176

TOTAL HOURS CALM

0

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant  
 STABILITY BASED ON DELTA-T BETWEEN 45.30 AND 89.59 METERS  
 WIND SPEED AND DIRECTION MEASURED AT 90.29 METER LEVEL

DATE PRINTED: 2003/02/07

MEAN WIND SPEED = 11.13

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS D (-1.5< DELTA T<=-0.5 C/100 M)

Browns Ferry Nuclear Plant

OCT 1, 2002 - DEC 31, 2002

WIND DIRECTION	WIND SPEED (MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.046	0.276	0.597	2.022	1.471	0.414	0.000	4.825
NNE	0.000	0.000	0.138	0.506	0.551	1.654	0.827	0.046	0.000	3.722
NE	0.000	0.046	0.046	0.276	0.643	0.827	0.368	0.000	0.092	2.298
ENE	0.000	0.000	0.138	0.046	0.138	0.368	0.092	0.092	0.000	0.873
E	0.000	0.000	0.000	0.368	0.276	0.643	0.138	0.046	0.000	1.471
ESE	0.000	0.000	0.046	0.276	0.689	1.425	0.551	0.046	0.092	3.125
SE	0.000	0.000	0.230	0.230	0.506	1.103	1.563	1.149	0.689	5.469
SSE	0.000	0.000	0.414	0.551	0.597	1.241	1.379	0.827	0.460	5.469
S	0.000	0.000	0.230	0.368	0.092	1.011	1.379	0.551	0.276	3.906
SSW	0.000	0.000	0.230	0.092	0.092	0.597	0.460	0.276	0.368	2.114
SW	0.000	0.000	0.184	0.873	0.184	0.551	0.643	0.046	0.000	2.482
WSW	0.000	0.000	0.276	0.368	0.230	0.276	0.919	0.230	0.000	2.298
W	0.000	0.000	0.138	0.551	0.368	1.057	0.873	0.735	0.138	3.860
WNW	0.000	0.000	0.276	0.414	0.322	1.700	1.057	1.011	0.138	4.917
NW	0.000	0.046	0.322	0.551	0.643	1.149	1.700	0.827	0.092	5.331
NNW	0.000	0.046	0.184	0.506	0.368	2.390	2.619	1.057	0.000	7.169
SUBTOTAL	0.000	0.138	2.895	6.250	6.296	18.015	16.039	7.353	2.344	59.329

TOTAL HOURS OF VALID STABILITY OBSERVATIONS	2186
TOTAL HOURS OF STABILITY CLASS D	1296
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS D	1291
TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS	2176
TOTAL HOURS CALM	0

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant  
 STABILITY BASED ON DELTA-T BETWEEN 45.30 AND 89.59 METERS  
 WIND SPEED AND DIRECTION MEASURED AT 90.29 METER LEVEL

DATE PRINTED: 2003/02/07

MEAN WIND SPEED = 12.12

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

## JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS E (-0.5&lt; DELTA T&lt;= 1.5 C/100 M)

Browns Ferry Nuclear Plant

OCT 1, 2002 - DEC 31, 2002

WIND DIRECTION	WIND SPEED(MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.046	0.276	0.138	1.057	0.965	0.046	0.000	2.528
NNE	0.000	0.092	0.092	0.184	0.184	1.149	0.965	0.046	0.046	2.757
NE	0.000	0.046	0.046	0.138	0.046	0.873	0.322	0.138	0.046	1.654
ENE	0.000	0.046	0.184	0.046	0.230	0.322	0.138	0.000	0.046	1.011
E	0.000	0.046	0.046	0.046	0.184	0.506	0.230	0.046	0.000	1.103
ESE	0.000	0.000	0.138	0.138	0.138	0.827	0.368	0.138	0.046	1.792
SE	0.000	0.000	0.322	0.138	0.230	1.195	0.368	0.781	0.781	3.814
SSE	0.000	0.092	0.322	0.092	0.368	1.195	1.057	0.919	0.735	4.779
S	0.000	0.092	0.230	0.322	0.460	0.597	1.746	0.919	0.184	4.550
SSW	0.000	0.046	0.138	0.092	0.460	0.827	0.414	0.046	0.138	2.160
SW	0.000	0.092	0.276	0.276	0.276	0.643	0.414	0.046	0.000	2.022
WSW	0.000	0.000	0.046	0.046	0.276	0.551	0.551	0.046	0.000	1.517
W	0.000	0.046	0.046	0.184	0.138	0.230	0.230	0.092	0.000	0.965
WNW	0.000	0.046	0.138	0.276	0.138	0.138	0.000	0.046	0.000	0.781
NW	0.000	0.046	0.092	0.230	0.092	0.368	0.276	0.000	0.000	1.103
NNW	0.000	0.000	0.092	0.092	0.138	0.506	0.735	0.092	0.000	1.654
SUBTOTAL	0.000	0.689	2.252	2.574	3.493	10.983	8.778	3.401	2.022	34.191

TOTAL HOURS OF VALID STABILITY OBSERVATIONS

2186

TOTAL HOURS OF STABILITY CLASS E

749

TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS E

744

TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS

2176

TOTAL HOURS CALM

0

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant  
 STABILITY BASED ON DELTA-T BETWEEN 45.30 AND 89.59 METERS  
 WIND SPEED AND DIRECTION MEASURED AT 90.29 METER LEVEL

DATE PRINTED: 2003/02/07

MEAN WIND SPEED = 12.00

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

## JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS F ( 1.5&lt; DELTA T&lt;= 4.0 C/100 M)

Browns Ferry Nuclear Plant

OCT 1, 2002 - DEC 31, 2002

WIND DIRECTION	WIND SPEED(MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.000	0.000	0.000	0.184	0.092	0.000	0.000	0.276
NNE	0.000	0.000	0.000	0.092	0.000	0.276	0.276	0.092	0.000	0.735
NE	0.000	0.000	0.046	0.046	0.046	0.000	0.138	0.046	0.000	0.322
ENE	0.000	0.000	0.092	0.000	0.046	0.092	0.092	0.000	0.000	0.322
E	0.000	0.000	0.092	0.000	0.000	0.000	0.000	0.000	0.000	0.092
ESE	0.000	0.000	0.000	0.000	0.046	0.000	0.000	0.000	0.000	0.046
SE	0.000	0.000	0.000	0.046	0.092	0.368	0.000	0.046	0.000	0.551
SSE	0.000	0.000	0.000	0.046	0.138	0.322	0.046	0.000	0.000	0.551
S	0.000	0.000	0.000	0.000	0.230	0.092	0.138	0.000	0.000	0.460
SSW	0.000	0.000	0.138	0.092	0.184	0.138	0.092	0.000	0.000	0.643
SW	0.000	0.000	0.138	0.092	0.138	0.322	0.000	0.000	0.000	0.689
WSW	0.000	0.000	0.046	0.046	0.184	0.184	0.000	0.000	0.000	0.460
W	0.000	0.000	0.000	0.000	0.046	0.138	0.000	0.000	0.000	0.184
WNW	0.000	0.000	0.000	0.046	0.000	0.000	0.000	0.000	0.000	0.046
NW	0.000	0.000	0.046	0.000	0.000	0.000	0.000	0.000	0.000	0.046
NNW	0.000	0.000	0.000	0.000	0.000	0.000	0.322	0.000	0.000	0.322
SUBTOTAL	0.000	0.000	0.597	0.506	1.149	2.114	1.195	0.184	0.000	5.744

TOTAL HOURS OF VALID STABILITY OBSERVATIONS

2186

TOTAL HOURS OF STABILITY CLASS F

125

TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS F

125

TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS

2176

TOTAL HOURS CALM

0

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant

STABILITY BASED ON DELTA-T BETWEEN 45.30 AND 89.59 METERS

WIND SPEED AND DIRECTION MEASURED AT 90.29 METER LEVEL

DATE PRINTED: 2003/02/07.

MEAN WIND SPEED = 9.34

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

## JOINT PERCENTAGE FREQUENCIES OF WIND SPEED BY WIND DIRECTION FOR

STABILITY CLASS G (DELTA T &gt; 4.0 C/100 M)

Browns Ferry Nuclear Plant

OCT 1, 2002 - DEC 31, 2002

WIND DIRECTION	WIND SPEED(MPH)									TOTAL
	CALM	0.6-1.4	1.5-3.4	3.5-5.4	5.5-7.4	7.5-12.4	12.5-18.4	18.5-24.4	>=24.5	
N	0.000	0.000	0.000	0.000	0.000	0.000	0.138	0.000	0.000	0.138
NNE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.046	0.000	0.046
ENE	0.000	0.000	0.000	0.000	0.000	0.046	0.046	0.000	0.000	0.092
E	0.000	0.000	0.000	0.000	0.000	0.046	0.000	0.000	0.000	0.046
ESE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SSE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
S	0.000	0.000	0.000	0.046	0.000	0.000	0.000	0.000	0.000	0.046
SSW	0.000	0.000	0.000	0.000	0.046	0.000	0.000	0.000	0.000	0.046
SW	0.000	0.000	0.000	0.000	0.092	0.000	0.000	0.000	0.000	0.092
WSW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
W	0.000	0.000	0.046	0.000	0.000	0.000	0.000	0.000	0.000	0.046
WNW	0.000	0.000	0.046	0.000	0.000	0.000	0.000	0.000	0.000	0.046
NW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NNW	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SUBTOTAL	0.000	0.000	0.092	0.046	0.138	0.092	0.184	0.046	0.000	0.597

TOTAL HOURS OF VALID STABILITY OBSERVATIONS

2186

TOTAL HOURS OF STABILITY CLASS G

13

TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY CLASS G

13

TOTAL HOURS OF VALID WIND DIRECTION-WIND SPEED-STABILITY OBSERVATIONS

2176

TOTAL HOURS CALM

0

METEOROLOGICAL FACILITY: Browns Ferry Nuclear Plant  
 STABILITY BASED ON DELTA-T BETWEEN 45.30 AND 89.59 METERS  
 WIND SPEED AND DIRECTION MEASURED AT 90.29 METER LEVEL

DATE PRINTED: 2003/02/07

MEAN WIND SPEED = 9.95

NOTE: TOTALS AND SUBTOTALS ARE OBTAINED FROM UNROUNDED NUMBERS

**ENCLOSURE 3**

**TENNESSEE VALLEY AUTHORITY  
BROWNS FERRY NUCLEAR PLANT (BFN)  
UNITS 1, 2, AND 3**

**EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT  
JANUARY THROUGH DECEMBER 2002**

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EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT  
YEAR 2002

I. Regulatory and BFN ODCM Limits

A. Fission and Activation Gases in Gaseous Effluent:

The release of fission and activation gases is regulated by the dose limits of 10 CFR 50 Appendix I and BFN Offsite Dose Calculation Manual (ODCM). The air dose to areas at and beyond the site boundary due to noble gases released in gaseous effluents per unit, shall be limited during any calendar quarter to  $\leq 5$  millirad (mrad) for gamma radiation and  $\leq 10$  mrad for beta radiation; and during any calendar year to  $\leq 10$  mrad for gamma radiation and  $\leq 20$  mrad for beta radiation.

B. Iodines and Particulates with Half-Lives Greater than Eight Days in Gaseous Effluents.

The release of iodines and particulates in gaseous effluent is regulated by the dose limits of 10 CFR 50 Appendix I and the BFN ODCM. The dose to a member of the public from radioiodines, radioactive materials in particulate form, and radionuclides other than noble gases with half-lives greater than eight days in gaseous effluent released per unit to areas at and beyond the site boundary shall be limited to any organ during any calendar quarter to  $\leq 7.5$  millirem (mrem), and during any calendar year to  $\leq 15$  mrem.

C. Liquid Effluents

The release of radioactive liquid effluents is regulated by the dose limits of 10 CFR 50, Appendix I, and the BFN ODCM. The doses or dose commitment to a member of the public from radioactive materials in liquid effluents released from each unit to unrestricted areas shall be limited during any calendar quarter to  $\leq 1.5$  mrem to the total body and  $\leq 5$  mrem to any organ and during any calendar year to  $\leq 3$  mrem to the total body and  $\leq 10$  mrem to any organ.

II. Limitation on Dose Rate

A. Fission and Activation Gases in Gaseous Effluent:

1. The instantaneous release rate of fission and activation gases is based on the dose rate limits of 10 CFR 20.1301 and the BFN ODCM. The dose rate at any time to areas at and beyond the site boundary due to noble gases released in gaseous effluents from the site shall be limited to  
 $\leq 500$  mrem per year to the total body and  $\leq 3000$  mrem per year to the skin.
2. The BFN ODCM Section 7.2 determines the maximum noble gas release rate.

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT  
YEAR 2002

II. Limitations on Dose Rate (Continued)

B. Iodines and Particulates with Half-Lives Greater than Eight Days in gaseous effluents.

1. The instantaneous release rate of particulates and iodines is regulated by the dose rate limits of the BFN ODCM. The dose rate at any time to areas at and beyond the site boundary, due to I-131, I-133, H-3 and particulates with greater than eight days half-lives released in gaseous effluents from the site, shall be limited to  $\leq 1500$  mrem per year to any organ.
2. The BFN ODCM Section 7.3 determines the maximum particulate and iodine dose rates.

C. Liquid Effluents

1. The concentration of radionuclides in liquid effluents released at any time from the site to unrestricted areas shall be limited to the concentrations specified in 10 CFR 20.1001 - 20.2402, Appendix B, Table 2, Column 2 for radionuclides other than dissolved or entrained noble gases.
2. For dissolved or entrained noble gases, the concentration shall be limited to  $2E-4$   $\mu\text{Ci}$  per milliliter (ml) total activity.

III. Measurements and Approximations of Total Radioactivity

A. Fission and Activation Gases:

1. Noble gases in the building vent and stack (elevated) gaseous effluents are continuously monitored. The flow rate of the stack is continuously monitored and the building vent effluent flow rates are calculated once a shift based on the configuration of operating exhaust fans. The vent flow is calculated for each release. Gas grab samples of the stack are taken and analyzed weekly. Gas grab samples of in-service vents are taken and analyzed monthly. The specific noble gas activity concentrations and total volume of the gases are used to calculate the total curies of noble gases released.
2. The tritium concentration is determined by the analysis of a monthly grab sample for each release point.



EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT  
YEAR 2002

III. Measurements and Approximations of Total Radioactivity (continued)

B. Iodines and Particulates

1. Iodines and particulates are continuously sampled on impregnated charcoal filters and particulate filters, respectively. The charcoal and particulate samples are replaced at least weekly and analyzed to determine specific activity concentrations. The specific activity concentrations and vent flow rate data are used weekly to verify that release rate limits were not exceeded. The specific activity concentrations and total volume of gaseous effluent are used on a monthly basis to determine the total curies of each particulate and iodine released during the month.
2. The gross alpha concentration is determined by analysis of a monthly particulate filter composite sample and strontium -89 and -90 are determined by analysis of a quarterly particulate filter composite sample for each release point.

C. Liquid Effluents

1. The gamma ray emitting radionuclide concentrations are determined for each batch by gamma ray spectroscopy analysis of a grab sample. The allowable release rate is calculated for each batch based upon the known dilution flow. The flow rate of the liquid effluent is continuously monitored and the total volume released in each batch is determined. The total gamma activity released in each batch is determined by multiplying the radionuclide concentrations by the total volume discharged. The total gamma activity released during the month is then determined by summing the gamma activity content of each batch discharged during the month.
  2. The gross alpha and tritium concentrations are measured on a monthly composite sample. The strontium -89 and -90 and iron -55 are measured on a quarterly composite sample.
- D. The Radioactive Gaseous and Liquid Waste Monitoring Sampling and Analysis Program is specified in ODCM Sections 1/2.2.1 and 1/2.2.2.

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT  
SUPPLEMENTAL INFORMATION  
2002

IV. Batch

		<u>Quarter</u>	<u>Quarter</u>	<u>Quarter</u>	<u>Quarter</u>
		<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>
A. Liquid	<u>Units</u>				
1. Number of batches released	Each	0	0	0	0
2. Total time for batches released	Minutes	0	0	0	0
3. Maximum time period for a batch release	Minutes	0	0	0	0
4. Average time period for a batch release	Minutes	0	0	0	0
5. Minimum time period for a batch release	Minutes	0	0	0	0
6. Average stream flow during period of release into a flowing stream	Cubic feet per second	0	0	0	0

B. Gaseous

None

C. Abnormal/Unplanned Releases\*

Type	Number of Releases	Total Activity Releases (Curies)
Liquid	None	None
Gaseous	None	None

\* An explanation of any liquid or gaseous abnormal/unexplained release shall be documented in the summary.

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT  
LIQUID EFFLUENTS - SUMMATION OF ALL RELEASES  
YEAR 2002

	<u>Units</u>	<u>Quarter</u> <u>1</u>	<u>Quarter</u> <u>2</u>	<u>Quarter</u> <u>3</u>	<u>Quarter</u> <u>4</u>	<u>Error</u> <u>%</u>
<b>A. Fission and Activation Products</b> (Does not include tritium, gases, Alpha)						
1. Total Release	Curies	NR*	NR	NR	NR	9
2. Average Diluted Concentration Released During Period	μCi/ml	NR	NR	NR	NR	
3. Percent of Applicable Limit	%	**	**	**	**	
<b>B. Tritium</b>						
1. Total Releases	Curies	NR	NR	NR	NR	6
2. Average Diluted Concentration Released During Period	μCi/ml	NR	NR	NR	NR	
3. Percent of Applicable Limit	%	**	**	**	**	
<b>C. Dissolved and Entrained Noble Gases</b>						
1. Total Releases	Curies	NR	NR	NR	NR	8
2. Average Diluted Concentration Released During Period	μCi/ml	NR	NR	NR	NR	
3. Percent of Applicable Limit	%	**	**	**	**	
<b>D. Gross Alpha Radioactivity</b>						
1. Total Releases	Curies	NR	NR	NR	NR	48
2. Average Diluted Concentration Released During Period	μCi/ml	NR	NR	NR	NR	
<b>E. Volume of Liquid Waste to Discharge Canal (Prior to dilution)</b>						
	Liters	NR	NR	NR	NR	3
<b>F. Volume of Dilution Water for Period</b>						
	Liters	NR	NR	NR	NR	10
<b>G. Total CCW</b>						
	gigagallons	NR	NR	NR	NR	

\*NR -- No liquid releases were made in the 1<sup>st</sup> 2<sup>nd</sup> 3<sup>rd</sup> and 4<sup>th</sup> quarters.

\*\* The applicable limit is expressed in terms of dose. See Enclosure 1, Tables 5 through 8.

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT  
LIQUID RELEASES FOR YEAR 2002 - BATCH MODE

<u>CURIES</u> <u>Isotope</u>		<u>Quarter</u>	<u>Quarter</u>	<u>Quarter</u>	<u>Quarter</u>
(Required by Regulatory (REG) Guide 1.21)		<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>
1.	Ba-140	NR*	NR	NR	NR
2.	Ce-141	NR	NR	NR	NR
3.	Co-58	NR	NR	NR	NR
4.	Co-60	NR	NR	NR	NR
5.	Cr-51	NR	NR	NR	NR
6.	Cs-134	NR	NR	NR	NR
7.	Cs-137	NR	NR	NR	NR
8.	Fe-59	NR	NR	NR	NR
9.	I-131	NR	NR	NR	NR
10.	La-140	NR	NR	NR	NR
11.	Mn-54	NR	NR	NR	NR
12.	Mo-99	NR	NR	NR	NR
13.	Nb-95	NR	NR	NR	NR
14.	Sr-89	NR	NR	NR	NR
15.	Sr-90	NR	NR	NR	NR
16.	Tc-99m	NR	NR	NR	NR
17.	Xe-133	NR	NR	NR	NR
18.	Xe-135	NR	NR	NR	NR
19.	Zn-65	NR	NR	NR	NR
20.	Zr-95	NR	NR	NR	NR

Others (Not Required by REG Guide 1.21)

NONE

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\*NR -- No liquid releases were made during the 1st 2nd 3rd and 4th quarters.

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT  
GASEOUS EFFLUENTS - SUMMATION OF ALL RELEASES  
YEAR 2002

	<u>Units</u>	<u>Quarter</u> <u>1</u>	<u>Quarter</u> <u>2</u>	<u>Quarter</u> <u>3</u>	<u>Quarter</u> <u>4</u>	<u>Error</u> <u>%</u>
<b>A. Fission and Activation Gases</b>						
1. Total Releases	Curies	1.59E+01	6.13E+01	1.20E+03	1.63E+03	45
2. Average Release Rate for Period	μCi/sec	2.05E+00	7.79E+00	1.51E+02	2.05E+02	
3. Percent of Applicable Limit	%	*	*	*	*	
<b>B. Iodines</b>						
1. Total Iodine-131	Curies	4.03E-03	8.73E-02	4.58E-03	1.80E-01	36
2. Average Release Rate for Period	μCi/sec	5.18E-04	1.11E-02	5.77E-04	2.26E-02	
3. Percent of Applicable Limit	%	*	*	*	*	
<b>C. Particulates</b>						
1. Particulates with half-lives > eight days	Curies	1.12E-03	1.13E-03	1.41E-03	2.42E-03	35
2. Average Release Rate for Period	μCi/sec	1.44E-04	1.44E-04	1.78E-04	3.05E-04	
3. Percent of Applicable Limit	%	*	*	*	*	
4. Gross Alpha Radioactivity	Curies	ND**	ND	ND	ND	
<b>D. Tritium</b>						
1. Total Release	Curies	3.10E+01	1.32E+01	1.06E+01	6.38E+01	21
2. Average Release Rate for Period	μCi/sec	3.99E+00	1.67E+00	1.34E+00	8.02E+00	
3. Percent of Applicable Limit	%	*	*	*	*	

\*Applicable Limits are expressed in terms of dose. See Enclosure 1, Tables 1 through 4.

\*\*ND – Not Detected.

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT  
YEAR 2002  
GASEOUS EFFLUENTS - ELEVATED RELEASE

<u>CURIES</u>	<u>Quarter 1</u>	<u>Quarter 2</u>	<u>Quarter 3</u>	<u>Quarter 4</u>
1. Fission Gases				
Kr-85m	1.59E+01	2.59E+00	1.09E+02	2.03E+02
Kr-85	ND*	ND	ND	ND
Kr-87	ND	ND	ND	ND
Kr-88	ND	ND	4.51E+01	8.82E+01
Xe-133	ND	5.87E+01	1.04E+03	1.33E+03
Xe-135m	ND	ND	ND	ND
Xe-135	ND	ND	3.65E+00	3.63E+00
Xe-138	ND	ND	ND	ND
Others (specify)				
N-13	ND	ND	7.72 E+00	ND
Total for Period	<u>1.59E+01</u>	<u>6.12E+01</u>	<u>1.20E+03</u>	<u>1.63E+03</u>
2. Iodines				
I-131	2.44E-04	4.03E-03	5.31E-04	5.42E-03
I-133	2.11E-04	4.26E-04	2.61E-04	8.88E-04
Total for Period	<u>4.55E-04</u>	<u>4.46E-03</u>	<u>7.92E-04</u>	<u>6.31E-03</u>

\*ND – Not Detected.

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT  
YEAR 2002  
GASEOUS EFFLUENTS - ELEVATED RELEASE

<u>CURIES</u>	<u>Quarter 1</u>	<u>Quarter 2</u>	<u>Quarter 3</u>	<u>Quarter 4</u>
3. Particulates*				
Sr-89	9.95E-05	4.96E-05	8.66E-05	1.19E-04
Sr-90	ND**	ND	ND	ND
Cs-134	ND	2.51E-06	ND	ND
Cs-137	ND	2.05E-06	ND	ND
Ba-140	9.21E-05	4.58E-05	5.13E-05	7.60E-05
La-140	4.29E-05	1.62E-05	1.84E-05	2.32E-05
Others (specify)				
Rb-88	ND	ND	ND	1.32E-01
Rb-89	1.06E-01	2.21E-02	1.62E-01	3.25E-02
Sr-91	2.38E-04	3.18E-04	6.21E-05	3.65E-04
Y-91m	6.81E-04	5.02E-04	4.16E-04	5.98E-04
Cs-138	2.35E-01	7.66E-02	2.74E-01	9.60E-01
Ba-139	9.52E-02	5.60E-02	8.56E-02	1.21E-01
Au-199	2.16E-05	ND	4.07E-06	ND
<u>Total for Period*</u>	<u>4.37E-01</u>	<u>1.56E-01</u>	<u>5.23E-01</u>	<u>1.25E+00</u>
4. Tritium	<u>7.27E-01</u>	<u>9.62E-01</u>	<u>1.60E+00</u>	<u>1.84E+00</u>

\*Includes all nuclides, even those with less than an eight day half-life.

\*\*ND – Not Detected.

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT  
YEAR 2002  
GASEOUS EFFLUENTS - GROUND RELEASE

<u>CURIES</u>	<u>Quarter</u> <u>1</u>	<u>Quarter</u> <u>2</u>	<u>Quarter</u> <u>3</u>	<u>Quarter</u> <u>4</u>
1. Fission Gases				
Kr-85m	ND*	ND	ND	ND
Kr-85	ND	ND	ND	ND
Kr-87	ND	ND	ND	ND
Kr-88	ND	ND	ND	ND
Xe-133	ND	ND	ND	ND
Xe-135m	ND	ND	ND	ND
Xe-135	ND	ND	ND	ND
Xe-138	ND	ND	ND	ND
Others(specify)				
NONE				
<u>Total for Period</u>	<u>ND</u>	<u>ND</u>	<u>ND</u>	<u>ND</u>
2. Iodines				
I-131	1.88E-03	2.12E-03	1.01E-03	9.45E-03
I-132	ND	ND	ND	2.74E-04
I-133	4.20E-03	9.10E-04	1.03E-03	7.11E-03
I-135	ND	ND	ND	3.48E-04
<u>Total for Period</u>	<u>6.08E-03</u>	<u>3.03E-03</u>	<u>2.04E-03</u>	<u>1.72E-02</u>

\*ND – Not Detected.



EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT  
YEAR 2002  
GASEOUS EFFLUENTS - GROUND RELEASE

<u>CURIES</u>	<u>Quarter</u> <u>1</u>	<u>Quarter</u> <u>2</u>	<u>Quarter</u> <u>3</u>	<u>Quarter</u> <u>4</u>
3. <u>Particulates*</u>				
Sr-89	4.13E-05	1.45E-07	1.63E-05	1.15E-04
Sr-90	ND**	ND	ND	ND
Cs-134	ND	ND	ND	ND
Cs-137	ND	ND	ND	ND
Ba-140	6.54E-05	ND	ND	2.47E-05
La-140	1.24E-05	ND	ND	ND
Others (specify)				
Cr-51	ND	4.02E-05	ND	ND
Mn-54	1.22E-06	1.55E-05	ND	ND
Co-60	ND	1.69E-05	ND	ND
Sr-91	1.31E-04	ND	ND	ND
Y-91m	1.42E-03	6.71E-06	6.11E-05	7.11E-04
Cs-138	3.16E-02	1.39E-02	5.60E-02	3.68E-01
Ba-139	2.71E-02	7.18E-04	8.67E-03	3.98E-02
<u>Total for Period*</u>	<u>6.04E-02</u>	<u>1.47E-02</u>	<u>6.47E-02</u>	<u>4.08E-01</u>
4. <u>Tritium</u>	<u>6.04E+00</u>	<u>2.03E+00</u>	<u>2.31E+00</u>	<u>4.14E+00</u>

\*Include all nuclides even those with less than an eight day half-life.

\*\*ND – Not Detected.

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT  
YEAR 2002  
GASEOUS EFFLUENTS - MIXED MODE RELEASE\*

<u>CURIES</u>	<u>Quarter</u> <u>1</u>	<u>Quarter</u> <u>2</u>	<u>Quarter</u> <u>3</u>	<u>Quarter</u> <u>4</u>
1. Fission Gases				
Kr-85m	ND**	ND	ND	ND
Kr-85	ND	ND	ND	ND
Kr-87	ND	ND	ND	ND
Kr-88	ND	ND	ND	ND
Xe-133	ND	ND	ND	3.86E-02
Xe-135m	ND	ND	ND	ND
Xe-135	ND	ND	ND	8.13E-03
Xe-138	ND	ND	ND	ND
Others(specify)				
NONE				
<u>Total for Period</u>	ND	ND	ND	<u>4.68E-02</u>
2. Iodines				
I-131	1.91E-03	8.12E-02	3.04E-03	1.65E-01
I-133	4.29E-03	4.33E-03	4.53E-03	4.65E-02
I-135	1.02E-04	ND	ND	ND
<u>Total for Period</u>	<u>6.30E-03</u>	<u>8.55E-02</u>	<u>7.57E-03</u>	<u>2.11E-01</u>

\*The Reactor Building and Radwaste Building are treated as split-level releases.

\*\*ND – Not Detected.

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT  
YEAR 2002  
GASEOUS EFFLUENTS - MIXED MODE RELEASE\*

<u>CURIES</u>	<u>Quarter</u> <u>1</u>	<u>Quarter</u> <u>2</u>	<u>Quarter</u> <u>3</u>	<u>Quarter</u> <u>4</u>
3. Particulates**				
Sr-89	7.82E-05	3.35E-05	3.29E-05	8.82E-05
Sr-90	ND***	ND	ND	ND
Cs-134	ND	1.12E-04	2.21E-04	4.60E-04
Cs-137	4.13E-06	1.70E-04	4.90E-04	7.90E-04
Ba-140	3.11E-04	7.85E-05	8.97E-05	2.54E-04
La-140	2.16E-04	1.14E-05	4.97E-05	7.87E-05
Others (specify)				
Na-24	2.06E-04	2.36E-03	2.89E-03	1.34E-03
Cr-51	2.08E-04	1.52E-04	ND	ND
Mn-54	6.68E-05	1.21E-04	1.18E-04	1.05E-04
Co-58	1.18E-05	4.15E-05	6.76E-05	2.53E-05
Fe-59	1.48E-05	2.65E-06	ND	ND
Co-60	9.00E-05	1.89E-04	1.12E-04	1.23E-04
Zn-65	ND	3.36E-05	5.40E-05	1.06E-04
Y-91m	2.93E-03	1.17E-03	2.50E-03	3.06E-03
Sr-91	2.96E-03	ND	2.53E-04	2.01E-03
Sr -92	2.47E-04	ND	ND	ND

\*The Reactor Building and Radwaste Building are treated as split-level releases.

\*\*Includes all nuclides, even those with less than an eight day half-life.

\*\*\*ND - Not Detected.

EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT  
YEAR 2002

- GASEOUS EFFLUENTS - MIXED MODE RELEASE\*

<u>CURIES</u> Particulates** (Continued) Others (specify)	<u>Quarter</u> <u>1</u>	<u>Quarter</u> <u>2</u>	<u>Quarter</u> <u>3</u>	<u>Quarter</u> <u>4</u>
Mo-99	5.53E-06	ND***	2.96E-05	3.01E-05
Tc-99m	5.40E-06	ND	2.89E-05	2.94E-05
Ag-110m	3.86E-05	2.00E-05	6.73E-05	1.33E-04
Cs-138	5.20E-03	ND	ND	2.26E-02
Ba-139	6.63E-02	2.50E-02	5.19E-03	8.51E-02
Au-199	ND	1.54E-06	ND	ND
Total for Period**	<u>7.90E-02</u>	<u>2.95E-02</u>	<u>1.22E-02</u>	<u>1.16E-01</u>
4. Tritium	<u>2.42E+01</u>	<u>1.02E+01</u>	<u>6.70E+00</u>	<u>5.78E+01</u>

\*The Reactor Building and Radwaste Building are treated as split-level releases.

\*\*Includes all nuclides, even those with less than an eight day half-life.

\*\*\*ND - Not Detected.

**BROWNS FERRY NUCLEAR PLANT  
ANNUAL EFFLUENT AND WASTE DISPOSAL REPORT  
2002  
SOLID WASTE AND IRRADIATED FUEL**

**A. Solid Waste Shipped Off-site for Burial or Disposal (Not Irradiated Fuel)**

1.	<u>Type of Waste</u>	<u>Units</u>	<u>Amount</u>	<u>Error %</u>
a.	Spent resins, filter sludge evaporator bottoms, etc.	m <sup>3</sup> Ci	0.00E+00 0.00E+00	
b.	Dry compressible waste, contaminated equipment, etc.	m <sup>3</sup> Ci	1.71E+02 6.47E+01	+/-25.0
c.	Irradiated components, control rod drives	m <sup>3</sup> Ci	0.00E+00 0.00E+00	
d.	Cartridge filters	m <sup>3</sup> Ci	0.00E+00 0.00E+00	

**2. Estimate of Major Nuclide Composition by Waste Type**

a.	Dry compressible waste, contaminated equipment, etc.		
	<u>Nuclide</u>	<u>Percentage</u>	<u>Activity (Curies)</u>
1.	Iron <sup>55</sup> (1)	7.62E+01	4.98E+01
2.	Cobalt <sup>60</sup> (1)	9.54E+00	6.17E+01
3.	Manganese <sup>54</sup> (1)	7.10E+00	4.60E+00
4.	Silver <sup>110m</sup> (1)	2.06E+00	1.34E+00
5.	Cesium <sup>137</sup> (1)	1.24E+00	8.05E-01
6.	Chromium <sup>51</sup> (1)	9.76E-01	6.32E-01
7.	Iron <sup>59</sup> (1)	8.85E-01	7.73E-01
8.	Zinc <sup>65</sup> (1)	7.45E-01	4.82E-01
9.	Cesium <sup>134</sup> (1)	3.91E-01	2.53E-01
10.	Cobalt <sup>58</sup> (1)	3.27E-01	2.12E-01
11.	Nickel <sup>63</sup> (1)	1.96E-01	1.27E-01
12.	Antimony <sup>124</sup> (1)	1.19E-01	7.72E-02
13.	Antimony <sup>125</sup> (1)	8.95E-02	5.79E-02
14.	Zirconium <sup>95</sup> (1)	6.96E-02	4.51E-02
15.	Cerium <sup>144</sup> (1)	3.98E-02	2.57E-02
16.	Strontium <sup>89</sup> (1)	1.99E-02	1.29E-02
17.	Tin <sup>113</sup> (1)	9.95E-03	6.44E-03
18.	Strontium <sup>90</sup> (1)	3.71E-05	2.40E-05
19.	Curium <sup>243/244</sup> (1)	3.09E-06	2.00E-06

(1) Calculated

**BROWNS FERRY NUCLEAR PLANT  
ANNUAL EFFLUENT AND WASTE DISPOSAL REPORT  
2002  
SOLID WASTE AND IRRADIATED FUEL**

**3. Solid Waste Disposition**

<u>Number of Shipments</u> 1	<u>Mode of Transportation</u> (1) Non Sole Use Truck	<u>Destination</u> US Ecology Oak Ridge, TN
42	(24) Sole Use Truck (18) Non Sole Use Truck	Duratek Oak Ridge, TN
1	(1) Non Sole Use Truck	Tennessee Valley Authority Mixed Waste Storage Facility Muscle Shoals, AL

**B. Irradiated Fuel Disposition**

<u>Number of Shipments</u> None	<u>Mode of Transportation</u> N/A	<u>Destination</u> N/A
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**C. Description of Shipments**

<u>Number of Shipments</u> 44	<u>Type Container</u> Strong Tight Package	<u>Type Quantity</u> A-LSA II LTD QTY	<u>Number of Containers</u> 52	<u>Container Volume</u> See Note	<u>Waste Type</u> DAW
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Solidification Agents Used:      None

Absorbents Used:                      None

NOTE: The 44 shipments of waste packaged in strong tight packages consisted of the following:

<u>Type of STC</u>	<u>Number of Packages</u>	<u>Volume of Packages (m<sup>3</sup>)</u>
40' "Sealand"	30	2.31E+03
20' "Sealand"	21	7.64E+02
55 Gal drum	1	2.12E-01

**BROWNS FERRY NUCLEAR PLANT  
EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT  
SUMMARY OF ABNORMAL/UNPLANNED RELEASES  
2002**

The release of radioactive material to the environment from Browns Ferry has been a small fraction of the 10 CFR 20 Appendix B and 10 CFR 50 Appendix I limits. There were no limits exceeded as specified in 10 CFR 20 Appendix B and 10 CFR 50 Appendix I.

No abnormal gaseous or liquid releases occurred in 2002.

During the reporting period, January 1 through December 31, 2002, there was no missed compensatory measures.

In calendar year 2002 Browns Ferry had no changes to the radwaste system or the Process Control Program (PCP).

**ENCLOSURE 4**

**TENNESSEE VALLEY AUTHORITY  
BROWNS FERRY NUCLEAR PLANT (BFN)  
UNITS 1, 2, AND 3**

**INOPERABLE RADIOLOGICAL EFFLUENT INSTRUMENTATION REPORT  
JANUARY THROUGH DECEMBER 2002**

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## **INOPERABLE RADIOLOGICAL EFFLUENT INSTRUMENTATION REPORT 2002**

This report is to comply with Browns Ferry Nuclear Plant Offsite Dose Calculation Manual (Offsite Dose Calculation Manual (ODCM)) Sections 1/2.1.1 and 1/2.1.2. The ODCM requires the exertion of best efforts to return inoperable instruments to operable status within 30 days. Failure to return such instruments to an operable status within the prescribed interval requires a description in the Annual Radioactive Effluent Release Report.

During the reporting period, January 1 through December 31, 2002, there were no inactive gaseous effluent monitoring instrumentation out of service for greater than 30 days; however, one liquid effluent monitor was out of service for greater than 30 days. The Unit 1 RHR service water monitor (1-RM-90-134) was considered inoperable between the times of December 08, 2001, at 0045 hours through January 7, 2002 at 1207 hours. The monitor had tripped due to low flow conditions. Work Orders were initiated in a timely manner and work packages were planned for implementation based on a priority status of not exceeding 21 days. Initial troubleshooting of the flow problem was completed on 12-29-2001 and had resolved the flow problem. However, during post maintenance testing activities, it was determined that a wiring error existed with a hand-switch in the pump start logic. A second work order was prepared to troubleshoot the wiring problem and was successfully completed on 01-07-2003. The monitor was then returned to service having exceeded 30 days by a few hours.

Some effluent monitors and flow instrumentation were placed in "out-of-service" status because these monitors' effluent streams were isolated. Therefore, these monitors are not included in this report.