Boston Edison
Pilgrim Nuclear Power Station
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10 CFR 50.36a(a)(2)
PNPS TS Section 6.9.C.1
Reg. Guide 1.21

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U.S. Nuclear Regulatory Commission
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Subject: SEMI-ANNUAL RADIOACTIVE EFFLUENT AND WASTE DISPOSAL REPORT FOR THE PERIOD JULY 1, 1994 THROUGH DECEMBER 31, 1994

In accordance with the requirements of 10CFR50.36a(a)(2), Pilgrim Nuclear Power Station Technical Specification Section 6.9.C.1, and Regulatory Guide 1.21, the Boston Edison Company submits the Semi-Annual Radioactive Effluent and Waste Disposal Report Including Meteorological Data for the period of July 1 through December 31, 1994.

Please do not hesitate to contact me if there are any questions regarding this report.

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WJM/lam/Waste

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PILGRIM NUCLEAR POWER STATION

Radioactive Effluent and Waste Disposal Report including Meteorological Data

July 1 through December 31, 1994

Boston Edison

PILGRIM NUCLEAR POWER STATION

Radioactive Effluent and Waste Disposal Report including Meteorological Data

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BOSTON EDISON COMPANY

PILGRIM NUCLEAR POWER STATION

RADIOACTIVE EFFLUENT AND WASTE DISPOSAL REPORT

INCLUDING METEOROLOGICAL DATA

JULY 1 THROUGH DECEMBER 31, 1994

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EXECUTIVE SUMMARY

BOSTON EDISON COMPANY
Pilgrim Nuclear Power Station
Radioactive Effluent and Waste Disposal Report
including Meteorological Data
July 1 to December 31, 1994

INTRODUCTION

This report quantifies the radioactive gaseous, liquid, and radwaste releases, and summarizes the local meteorological data for the period from July 1 to December 31, 1994. This document has been prepared in accordance with the requirements set forth in the Pilgrim Nuclear Power Station (PNPS) Technical Specifications and Revision 1 of Regulatory Guide 1.21, "Measuring, Evaluating, and Reporting Radioactivity in Solid Wastes and Releases of Radioactive Materials in Liquid and Gaseous Effluents from Light Water Cooled Nuclear Power Plants."

Regulatory Guide 1.21 requires an assessment of the radiological impact on man resulting from radioactivity released in liquid and gaseous effluents. This assessment is to be performed using effluent and meteorological data collected during the semiannual period covered by the report. Due to the complexity of calculations involved with performing such an assessment, it was impractical to complete the assessment within the 60 day issuance requirement for the report. Therefore, PNPS Technical Specifications were modified in May 1988 (Amendment #116) to allow for submission of a supplemental report containing the radiological impact assessments. This report is to be issued by April 1, and is to contain impact assessments for both semiannual periods (January-June, July-December) for the previous year. Since Technical Specification limits for gaseous effluents listed in Table 1A are based on calculated dose, these values are not presented in the semiannual effluent release report. These "percent of technical specification limit" values will be presented in the supplemental report issued prior to April 1, 1995.

The quantity of radioactive material released from Pilgrim Station was determined from sample analyses of gaseous releases from the main stack, reactor building vent, and turbine building, and liquid releases into the discharge canal. The quantity and volume of radioactive waste which was shipped off-site from Pilgrim Station for burial was determined from data contained on the radwaste shipping documentation. The meteorological data were obtained from instrumentation measurements from the 220 foot meteorological tower located at Pilgrim Station.

GASEOUS EFFLUENTS

The gaseous radioactive releases for the reporting period are quantified in Tables 1A, 1B and 1C. Radioactive noble gases released during the period totalled 778 curies. Releases of radioactive particulates and iodines from the main stack, reactor building vent, and turbine building, totalled 0.038 curies, and tritium releases totalled 19.8 curies. No gross alpha radioactivity was detected in gaseous effluents.

LIQUID EFFLUENTS

The liquid radioactive releases for the reporting period are quantified in Tables 2A and 2B. Liquid effluents into the discharge canal resulted in a total release to the environment (Cape Cod Bay) of 0.00214 curies of fission and activation products and 0.709 curies of tritium. Dissolved and entrained gases were not detected. No gross alpha radioactivity was detected.

SOLID WASTE

Boston Edison's radioactive waste burial allocation in Barnwell, South Carolina was suspended in early 1994. Although some shipments of radioactive waste materials were made off-site for volume reduction and/or salvage, no disposal of radioactive waste took place during the reporting period. Any radioactive residue arising from the processing of the waste will be returned to Boston Edison for interim storage at Pilgrim Station.

METEOROLOGICAL DATA

The meteorological data joint frequency distributions are listed in Tables 4A-1 and 4A-2. The percent data recovery for the reporting period was 98.9% on both the 33 foot and 220 foot elevations of the 220 foot meteorological tower at Pilgrim Station. Joint data recovery for the entire year of 1994 was 98.3% for the 33 foot level and 98.6% at the 220 foot level.

The predominant wind direction was from the south-southwest, which occurred approximately 17% of the time during this period. The predominant wind speed range at the 220 foot sensor was 13 to 18 mph, which occurred 33% of the time during this period. The predominant wind speed range at the 33 foot sensor was 4 to 7 mph, which occurred approximately 51% of the time. The predominant stability class was stability class D, which occurred about 39% of the time during this period.

CONCLUSION

The PNPS Technical Specifications contain limiting conditions for operations and operational objectives regarding radiological environmental releases. None of the limiting conditions for operation or operational objectives associated with liquid or gaseous effluents were exceeded during this reporting period, as confirmed by conservative dose assessments performed on a monthly basis during this period. Official dose assessments will be published in a supplement to this report due 90 days following January 1, 1995. Conformance to these PNPS Technical Specification operational objectives ensures that the releases of radioactive materials in gaseous and liquid effluents were kept as low as is reasonably achievable in accordance with the Nuclear Regulatory Commission's regulation 10CFR50, Appendix I. Furthermore, compliance with PNPS Technical Specifications demonstrates compliance with the Environmental Protection Agency's (EPA) federal environmental regulation 40CFR190.10, Subpart B.

1. INTRODUCTION

This report is issued for the period July 1 to December 31, 1994 in accordance with the Boston Edison Company's PNPS Technical Specifications and NRC Regulatory Guide 1.21, "Measuring, Evaluating and Reporting Radioactivity in Solid Wastes and Releases of Radioactive Materials in Liquid and Gaseous Effluents from Light Water Cooled Nuclear Power Plants," Revision 1 (Reference 1).

Regulatory Guide 1.21 requires an assessment of the radiological impact on man resulting from radioactivity released in liquid and gaseous effluents. This assessment is to be performed using effluent and meteorological data collected during the semiannual period covered by the report. Due to the complexity of calculations involved with performing such an assessment, it was impractical to complete the assessment within the 60 day issuance requirement for the report. Therefore, PNPS Technical Specifications were modified in May 1988 (Amendment #116) to allow for submission of a supplemental report containing the radiological impact assessments. This report is to be issued by April 1, and is to contain impact assessments for both semiannual periods (January-June, July-December) for the previous year. Since Technical Specification limits for gaseous effluents listed in Table 1A are based on calculated dose, these values are not presented in the semiannual effluent release report. These "percent of technical specification limit" values will be presented in the supplemental report issued prior to April 1, 1995.

2. RADIOACTIVE EFFLUENT DATA

Radioactive liquid and gaseous releases (Reference 2) for the period July 1 to December 31, 1994 are given in the standard NRC Regulatory Guide 1.21 format in Tables 1A, 1B, 1C, 2A, 2B, and the supplemental information form.

2.1 Gaseous Effluents

Gaseous radioactivity is released from Pilgrim Station to the atmosphere from the main stack and the reactor building exhaust vent. These gaseous effluent releases for the reporting period are summarized in Table 1A. Noble gases released during the period totalled 778 curies, for an average release rate of 49.3 μCi/sec. A total of 0.038 curies of radioactive iodines and particulates with half-lives greater than 8 days was released at an average release rate of 0.0024 μCi/sec. No alpha radioactivity was detected on particulate filters during this reporting period. A total of 19.8 curies of tritium was released at an average release rate of 1.25 μCi/sec.

The main stack is an elevated release point with a height of approximately 400 feet above mean sea level. The main stack is located about 700 feet west-northwest of the reactor building. The elevated releases for the reporting period are shown in Table 1B.

The majority of ground-level releases during the period occurred from the reactor building vent, but low levels of radionuclides were also detected in air exhausted from the turbine building. The reactor building exhaust vent is considered a mixed-mode/ground-level release point with a height of approximately 182 feet above mean sea level. The exhaust vent is located on the west corner of the reactor building. Combined ground level releases from both the reactor building vent and turbine building for the reporting period are shown in Table 1C.

2.2 Liquid Effluents

Liquid radioactivity is released from Pilgrim Station to the Cape Cod Bay via the circulating water discharge canal. These effluent releases enter the Cape Cod Bay at the outfall of the canal which is located about 1100 feet north from the reactor building.

The liquid releases for the reporting period are summarized in Table 2A. A total of approximately 531 thousand liters of radioactive liquid waste (prior to dilution) containing 0.00214 curies of fission and activation products (excluding tritium, gases, and alpha-emitting nuclides) was discharged with a total dilution volume of approximately 2.6 billion liters of water. The liquid effluents were released at an average concentration of fission and activation products of 8.15E-10 μCi/ml. A total of 0.709 curies of tritium was released, resulting in an average concentration of 2.70E-7 μCi/ml. No dissolved and entrained gases were detected in liquid effluents during the period. Alpha radioactivity was not detected during this reporting period. Quarterly release estimates and principal radionuclides in the liquid effluents are given in Table 2B.

During preparation of liquid effluent data for the January-June 1994 report, it was found that some releases of tritium in neutralizing sump discharges were not included in the effluent release reports prepared for calendar year 1993. Excess water from the turbine building closed cooling water system (TBCCW), which contained small amounts of tritium, was drained to the neutralizing sump and subsequently discharged. These discharges did not contain detectable gamma-emitting radionuclides and had originally been considered as non-radioactive. Further analyses of the neutralizing sump in 1994 identified the presence of tritium in the discharges. Previous neutralizing sump discharges containing TBCCW water were re-evaluated for tritium content back to the timeframe when tritium was assumed to have entered the system. Liquid effluent tables for the affected period were revised accordingly and are included as Appendix A of this report.

An assessment was performed to determine the dose consequences of the additional neutralizing sump discharges. Even though these additional discharges resulted in a slight increase in the amounts of tritium released in liquid effluents, the additional dilution flow which occurred offset any radiological impact. In fact, the additional water volume resulted in lower concentrations of all radionuclides over the release periods. Since radiological dose is proportional to radionuclide concentration, rather than total activity, the additional neutralizing sump discharges caused a decrease in radiological impact relative to that originally assessed in the 1993 dose assessment report.

PILGRIM NUCLEAR POWER STATION
EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT

SUPPLEMENTAL INFORMATION 1994
July - December 1994

Facility Pilgrim Nuclear Power Station Licensee DPR-35

1. Regulatory Limits

a. Fission and activation gases: 500 mrem/yr total body and 3000 mrem/yr for skin at site boundary.

b,c. Iodines, particulates with half-lives>8 days, tritium: 1500 mrem/yr to any organ at site boundary.

d. Liquid effluents: 0.06 mrem/month for total body and 0.20 mrem/month for any organ (without radwaste treatment).

2. Effluent Concentration Limits

a. Fission and activation gases: 10 CFR 20 Appendix B Table II
b. Iodines: 10 CFR 20 Appendix B Table II
c. Particulates, half-lives>8 days: 10 CFR 20 Appendix B Table II
d. Liquid effluents: 2E-4 μCi/ml for entrained noble gases; 10CFR20 Appendix B Table II values for all other radionuclides.

3. Average Energy: Not applicable

4. Measurements and Approximations of Total Radioactivity

a. Fission and activation gases:
b. Iodines:
c. Particulates:
d. Liquid effluents:

High-purity Ge gamma spectroscopy for all gamma emitters; radiochemistry analysis for H-3, Fe-55 (liquids only), Sr-89, and Sr-90.

5. Batch Releases

a. Liquid:

	Quarter 3rd	Quarter 4th
1. Number of batch releases:	20	22
2. Total time period for batch releases (minutes):	2.19E+3	9.52E+2
3. Maximum time period for a batch release (minutes):	2.40E+2	1.62E+2
4. Average time period for batch releases (minutes):	1.09E+2	4.33E+1
5. Minimum time period for a batch release (minutes):	2.50E+1	2.00E+1
6. Average stream flow during periods of release of effluents into a flowing stream (liters/min):	8.81E+5	7.30E+5

b. Gaseous: Not applicable

6. Abnormal Releases

a. Liquid: None
b. Gaseous: None

TABLE 1A
PILGRIM NUCLEAR POWER STATION
EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT 1994
GASEOUS EFFLUENTS-SUMMATION OF ALL RELEASES
July - December 1994

	Unit	Quarter 3rd	Quarter 4th	Est.Total Error,%
A. Fission and Activation Gases				
1. Total release	Ci	3.37E+02	4.41E+02	22%
2. Average release rate for period	uCi/sec	4.28E+01	5.60E+01	
3. Percent of Technical Specification limit	%	*	*	
B. Iodines				
1. Total iodine-131 release	Ci	3.71E-03	8.02E-04	20%
2. Average release rate for period	uCi/sec	4.70E-04	1.02E-04	
3. Percent of Technical Specification limit	%	*	*	
C. Particulates				
1. Particulates with half-lives>8 days	Ci	9.99E-04	6.27E-04	21%
2. Average release rate for period	uCi/sec	1.27E-04	7.95E-05	
3. Percent of Technical Specification limit	%	*	*	
4. Gross alpha radioactivity	Ci	NDA	NDA	
D. Tritium				
1. Total release rate for period	Ci	1.43E+01	5.51E+00	20%
2. Average release rate for period	uCi/sec	1.81E-00	6.99E-01	
3. Percent of Technical Specification limit	%	*	*	

Notes for Table 1A:

* Percent of Technical Specification Limit Values in Sections A.3, B.3, C.3, and D.3 are based on dose assessments not performed as part of this report. These will be provided in the annual supplemental dose assessment report to be issued prior to April 1, 1995.

1. NDA is no detectable activity.
2. LLD for gross alpha listed as NDA is 1E-11 μCi/ml.

TABLE 1B
PILGRIM NUCLEAR POWER STATION
EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT 1994
GASEOUS EFFLUENTS-ELEVATED RELEASE
July - December 1994

Nuclides Released	Unit	CONTINUOUS MODE		BATCH MODE	
		Quarter	Quarter	Quarter	Quarter
		3rd	4th	N/A	N/A
1. Fission and Activation Gases					
Kr-85m	Ci	4.39E+01	7.50E+01		
Kr-87	Ci	6.15E+00	8.01E+01		
Kr-88	Ci	5.39E+01	1.81E+02		
Xe-133	Ci	6.40E+01	2.70E+01		
Xe-135	Ci	8.59E+00	3.01E+01		
Xe-135m	Ci	6.83E+00	NDA		
Xe-138	Ci	2.25E+01	6.90E+00		
Total for period	Ci	2.06E+02	4.00E+02		
2. Iodines					
I-131	Ci	1.74E-03	6.15E-04		
I-133	Ci	9.50E-03	5.56E-03		
Total for period	Ci	1.12E-02	6.18E-03		
3. Particulates					
Mn-54	Ci	NDA	NDA		
Co-60	Ci	NDA	NDA		
Sr-89	Ci	2.52E-05	5.65E-05		
Sr-90	Ci	NDA	NDA		
Cs-134	Ci	NDA	NDA		
Cs-137	Ci	8.47E-06	NDA		
Ba/La-140	Ci	1.87E-04	1.03E-04		
Total for period	Ci	2.21E-04	1.60E-04		
4. Tritium					
H-3	Ci	3.69E-01	2.89E-01		

Notes for Table 1B:

1. NDA is no detectable activity.
2. LLDs for nuclides listed as NDA are as follows:

Fission gases:	1E-4 μCi/ml
Iodines:	1E-12 μCi/ml
Particulates:	1E-11 μCi/ml

TABLE 1C
PILGRIM NUCLEAR POWER STATION
EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT 1994
GASEOUS EFFLUENTS-GROUND LEVEL RELEASE
July - December 1994

Nuclides Released	Unit	CONTINUOUS MODE		BATCH MODE	
		Quarter	Quarter	Quarter	Quarter
		3rd	4th	N/A	N/A
1. Fission and Activation Gases					
Kr-85m	Ci	NDA	NDA		
Kr-87	Ci	NDA	NDA		
Kr-88	Ci	NDA	NDA		
Xe-133	Ci	NDA	NDA		
Xe-135	Ci	1.31E+02	4.11E+01		
Xe-135m	Ci	NDA	NDA		
Xe-138	Ci	NDA	NDA		
Total for period	Ci	1.31E+02	4.11E+01		
2. Iodines					
I-131	Ci	1.97E-03	1.87E-04		
I-133	Ci	1.49E-02	2.05E-03		
Total for period	Ci	1.69E-02	2.24E-03		
3. Particulates					
Sr-89	Ci	1.91E-04	3.40E-04		
Sr-90	Ci	NDA	NDA		
Cs-134	Ci	NDA	NDA		
Cs-137	Ci	NDA	2.04E-06		
Ba/La-140	Ci	5.87E-04	1.25E-04		
Total for period	Ci	7.78E-04	4.67E-04		
4. Tritium					
H-3	Ci	1.39E+01	5.22E+00		

Notes for Table 1C:

1. NDA is no detectable activity.
2. LLDs for nuclides listed as NDA are as follows:

Fission gases:	1E-4 μCi/ml
Iodines:	1E-12 μCi/ml
Particulates:	1E-11 μCi/ml

TABLE 2A
EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT 1994
LIQUID EFFLUENTS-SUMMATION OF ALL RELEASES
July - December 1994

	Unit	Quarter 3rd	Quarter 4th	Est.Total Error,%
A. Fission and Activation Products				
1. Total release (not including tritium, noble gases, or alpha)	Ci	1.78E-03	3.59E-04	12%
2. Average diluted concentration during period	uCi/ml	9.24E-10	5.17E-10	
3. Percent of Effluent Concentration Limit*	%	4.82E-02	2.87E-02	
B. Tritium				
1. Total release	Ci	1.48E-01	5.61E-01	9.4%
2. Average diluted concentration during period	uCi/ml	7.67E-08	8.07E-07	
3. Percent of Effluent Concentration Limit*	%	7.67E-03	8.07E-02	
C. Dissolved and Entrained Gases				
1. Total release	Ci	NDA	NDA	16%
2. Average release rate for period during period	uCi/ml	NDA	NDA	
3. Percent of Effluent Concentration Limit*	%	0.00E+0	0.00E+0	
D. Gross Alpha Radioactivity				
1. Total release	Ci	NDA	NDA	34%
E. Volume of Waste Released (prior to dilution)	liters	3.33E+05	1.98E+05	5.7%
F. Volume of Dilution Water Used During Period	liters	1.93E+09	6.95E+08	10%

Notes for Table 2A:

* Additional percent of Technical Specification Limit Values based on resulting dose will be provided in the annual supplemental dose assessment report to be issued prior to April 1, 1995.

1. NDA is no detectable activity.
2. LLD for gross alpha listed as NDA is 1E-7 μCi/ml.
3. LLD for dissolved and entrained gases listed as NDA is 1E-5 μCi/ml.

TABLE 2B
PILGRIM NUCLEAR POWER STATION
EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT 1994
LIQUID EFFLUENTS
July - December 1994

Nuclides Released	Unit	CONTINUOUS MODE		BATCH MODE	
		Quarter	Quarter	Quarter	Quarter
		Not Applicable		3rd	4th
1. Fission and activation products					
Cr-51	Ci	N/A	N/A	NDA	NDA
Mn-54	Ci	N/A	N/A	7.43E-06	9.65E-06
Fe-55	Ci	N/A	N/A	4.79E-05	6.38E-05
Fe-59	Ci	N/A	N/A	NDA	NDA
Co-58	Ci	N/A	N/A	NDA	NDA
Co-60	Ci	N/A	N/A	3.37E-04	1.27E-04
Zn-65	Ci	N/A	N/A	NDA	NDA
Sr-89	Ci	N/A	N/A	7.49E-04	6.78E-06
Sr-90	Ci	N/A	N/A	8.12E-05	3.84E-06
Zr/Nb-95	Ci	N/A	N/A	NDA	NDA
Mo-99/Tc-99m	Ci	N/A	N/A	NDA	NDA
Ru-103	Ci	N/A	N/A	NDA	NDA
Ag-110m	Ci	N/A	N/A	NDA	NDA
I-131	Ci	N/A	N/A	NDA	NDA
Cs-134	Ci	N/A	N/A	1.22E-06	NDA
Cs-137	Ci	N/A	N/A	5.59E-04	1.48E-04
Ba/La-140	Ci	N/A	N/A	1.40E-06	NDA
Ce-141	Ci	N/A	N/A	NDA	NDA
Ce/Pr-144	Ci	N/A	N/A	NDA	NDA
Total for period	Ci	N/A	N/A	1.78E-03	3.59E-04
2. Dissolved and entrained gases					
Xe-133	Ci	N/A	N/A	NDA	NDA
Xe-135	Ci	N/A	N/A	NDA	NDA
Total for period	Ci	N/A	N/A	NDA	NDA

Notes for Table 2B:

1) NDA is no detectable activity.
2) LLDs for nuclides listed as NDA are as follows:

Sr-89	5E-8 μCi/ml
I-131	1E-6 μCi/ml
Xe-133, Xe-135	1E-5 μCi/ml
All others	5E-7 μCi/ml

3. RADIOACTIVE WASTE DISPOSAL DATA

In early 1994, Boston Edison's radioactive waste burial allocation with Chem Nuclear Systems, Inc. in Barnwell, South Carolina was suspended. Since Massachusetts is not a member of Southeast Compact, it is no longer allowed to bury its radioactive wastes at facilities within the compact. Until a disposal location is agreed upon, PNPS's radioactive wastes will be held in an interim storage facility at Pilgrim Station.

Some shipments of radioactive wastes were made off-site during the reporting period for purposes of volume reduction and/or salvage. However, none of the radioactivity was disposed of via burial. Any radioactive residue recovered from the processing of the wastes is to be returned to Pilgrim Station for interim storage.

TABLE 3

PILGRIM NUCLEAR POWER STATION
EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT (1994)
JULY - DECEMBER 1994

A. **SOLID WASTE SHIPPED OFF-SITE FOR BURIAL OR DISPOSAL. (NOT IRRADIATED FUEL)**

1. **TYPE OF WASTE**

		6 MONTH PERIOD		
		VOLUME m^3	ACTIVITY Ci	EST. TOTAL ERROR %
a.	Spent resins, filter sludges, evaporator bottoms, etc.	0.00E+00	0.00E+00	N/A
b.	Dry compressible waste,	0.00E+00	0.00E+00	N/A
c.	Irradiated components, control rods, etc.	0.00E+00	0.00E+00	N/A
d.	Other miscellaneous low-level waste (describe)	0.00E+00	0.00E+00	N/A
TOTAL COMBINED WASTE		0.00E+00	0.00E+00	N/A

2. **Estimate of major composition.** (By type of waste)

a. Spent resin, filter sludges, evaporator bottoms, etc.

No shipments of radioactive wastes or components for disposal were made during the reporting period.

b. Dry compressible waste, contaminated equipment etc.

No shipments of radioactive wastes or components for disposal were made during the reporting period.

c. Irradiated components, control rods, etc.

No shipments of radioactive wastes or components for disposal were made during the reporting period.

d. Other (describe miscellaneous low level waste).

No shipments of radioactive wastes or components for disposal were made during the reporting period.

3. **Solid Waste Disposition**

NUMBER OF SHIPMENTS	MODE OF TRANSPORTATION	DESTINATION
5	Tractor-Trailer	Scientific Ecology Group Oak Ridge, TN
2	Tractor-Trailer	Alaron, Wampum, PA

\+ Contaminated wastes are shipped to Scientific Ecology Group, Oak Ridge, TN for volume reduction processing. After processing, the remaining wastes will be returned to Boston Edison at Pilgrim Station.

++ Contaminated wastes are shipped to Alaron Corp., Wampum, PA for volume reduction/salvage. After processing, the remaining wastes will be returned to Boston Edison at Pilgrim Station.

B. **IRRADIATED FUEL SHIPMENTS (DISPOSITION)**

No shipments of radioactive wastes or components for disposal were made during the reporting period.

4. METEOROLOGICAL DATA

Meteorological data (Reference 3) for the period July 1 to December 31, 1994 is given in Tables 4A-1 and 4A-2 in the standard joint frequency distribution format as given in NRC Regulatory Guide 1.21.

The predominant wind direction was from the south-southwest, which occurred about 17% of the time during this period. The predominant wind speed range at the 220 foot sensor was 13 to 18 mph, which occurred with a frequency of 33% during this period. The predominant wind speed range at the 33 foot sensor was 4 to 7 mph, which occurred approximately 51% of the time. The predominant stability class was stability class D, which occurred about 39% of the time during this period.

There were instances where the data recorded by the 220 foot tower were not continuous. Typically, data losses were due to loss of power, malfunction of the sensors, and/or malfunction of the digital dataloggers. The net result is that the data recovery for the period was 98.9% on both the 33 foot elevation and 220 foot elevation of the 220 foot meteorological tower at Pilgrim Station.

When averaged over the entire period of January-December 1994, the annual joint data recovery was 98.3% at the 33 foot level and 98.6% at the 220 foot level. This level of data recovery during 1994 well exceeds the 90% data recovery goal recommended in Safety Guide 23.

TABLE 4A-1

DISTRIBUTION OF WIND DIRECTIONS AND SPEEDS FOR THE 33 FT. LEVEL OF THE 220 FT. TOWER

PILGRIM JUL94-SEP94 MET DATA JOINT FREQUENCY DISTRIBUTION (220-FOOT TOWER)

33.0 FT WIND DATA STABILITY CLASS A CLASS FREQUENCY (PERCENT) = 10.85

WIND DIRECTION FROM

SPEED(MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	VRBL	TOTAL
CALM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
C-3	2	3	0	0	0	0	1	0	0	0	0	0	0	2	1	0	0	9
(1)	.85	1.28	.00	.00	.00	.00	.43	.00	.00	.00	.00	.00	.00	.85	.43	.00	.00	3.83
(2)	.09	.14	.00	.00	.00	.00	.05	.00	.00	.00	.00	.00	.00	.09	.05	.00	.00	.42
4-7	27	23	11	3	1	2	0	1	7	11	13	13	9	14	8	10	0	153
(1)	11.49	9.79	4.68	1.28	.43	.85	.00	.43	2.98	4.68	5.53	5.53	3.83	5.96	3.40	4.26	.00	65.11
(2)	1.25	1.06	.51	.14	.05	.09	.00	.05	.32	.51	.60	.60	.42	.65	.37	.46	.00	7.06
8-12	4	4	1	0	0	0	0	0	10	25	15	6	2	2	1	1	0	71
(1)	1.70	1.70	.43	.00	.00	.00	.00	.00	4.26	10.64	6.38	2.55	.85	.85	.43	.43	.00	30.21
(2)	.18	.18	.05	.00	.00	.00	.00	.00	.46	1.15	.69	.28	.09	.09	.05	.05	.00	3.28
13-18	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.85	.00	.00	.00	.00	.00	.00	.00	.85
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.09	.00	.00	.00	.00	.00	.00	.00	.09
19-24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
GT 24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
ALL SPEEDS	33	30	12	3	1	2	1	1	17	38	28	19	11	18	10	11	0	235
(1)	14.04	12.77	5.11	1.28	.43	.85	.43	.43	7.23	16.17	11.91	8.09	4.68	7.66	4.26	4.68	.00	100.00
(2)	1.52	1.39	.55	.14	.05	.09	.05	.05	.78	1.75	1.29	.88	.51	.83	.46	.51	.00	10.85

(1)=PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PAGE
(2)=PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PERIOD
C= CALM (WIND SPEED LESS THAN OR EQUAL TO .95 MPH)

TABLE 4A-1 (continued)

PILGRIM JUL94-SEP94 MET DATA JOINT FREQUENCY DISTRIBUTION (220-FOOT TOWER)

33.0 FT WIND DATA STABILITY CLASS B CLASS FREQUENCY (PERCENT) = 4.76

WIND DIRECTION FROM

SPEED(MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	VRBL	TOTAL
CALM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
C-3	0	0	0	1	0	0	0	0	0	0	2	1	1	1	1	0	0	7
(1)	.00	.00	.00	.97	.00	.00	.00	.00	.00	.00	1.94	.97	.97	.97	.97	.00	.00	6.80
(2)	.00	.00	.00	.05	.00	.00	.00	.00	.00	.00	.09	.05	.05	.05	.05	.00	.00	.32
4-7	1	4	1	1	0	1	2	0	2	16	15	5	1	2	3	4	0	58
(1)	.97	3.88	.97	.97	.00	.97	1.94	.00	1.94	15.53	14.56	4.85	.97	1.94	2.91	3.88	.00	56.31
(2)	.05	.18	.05	.05	.00	.05	.09	.00	.09	.74	.69	.23	.05	.09	.14	.18	.00	2.68
8-12	1	0	0	0	0	0	0	0	12	7	10	1	3	0	0	0	0	34
(1)	.97	.00	.00	.00	.00	.00	.00	.00	11.65	6.80	9.71	.97	2.91	.00	.00	.00	.00	33.01
(2)	.05	.00	.00	.00	.00	.00	.00	.00	.55	.32	.46	.05	.14	.00	.00	.00	.00	1.57
13-18	0	0	0	0	0	0	0	0	1	2	1	0	0	0	0	0	0	4
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.97	1.94	.97	.00	.00	.00	.00	.00	.00	3.88
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.05	.09	.05	.00	.00	.00	.00	.00	.00	.18
19-24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
GT 24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
ALL SPEEDS	2	4	1	2	0	1	2	0	15	25	28	7	5	3	4	4	0	103
(1)	1.94	3.88	.97	1.94	.00	.97	1.94	.00	14.56	24.27	27.18	6.80	4.85	2.91	3.88	3.88	.00	100.00
(2)	.09	.18	.05	.09	.00	.05	.09	.00	.69	1.15	1.29	.32	.23	.14	.18	.18	.00	4.76

(1)=PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PAGE
(2)=PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PERIOD
C= CALM (WIND SPEED LESS THAN OR EQUAL TO .95 MPH)

TABLE 4A-1 (continued)

PILGRIM JUL94-SEP94 MET DATA JOINT FREQUENCY DISTRIBUTION (220-FOOT TOWER)

33.0 FT WIND DATA STABILITY CLASS C CLASS FREQUENCY (PERCENT) = 4.48

WIND DIRECTION FROM

SPEED(MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	VRBL	TOTAL
CALM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
C-3	1	0	1	0	0	0	0	0	1	0	0	0	0	2	1	1	0	7
(1)	1.03	.00	1.03	.00	.00	.00	.00	.00	1.03	.00	.00	.00	.00	2.06	1.03	1.03	.00	7.22
(2)	.05	.00	.05	.00	.00	.00	.00	.00	.05	.00	.00	.00	.00	.09	.05	.05	.00	.32
4-7	4	1	7	2	0	0	0	0	6	11	16	10	1	3	1	0	0	62
(1)	4.12	1.03	7.22	2.06	.00	.00	.00	.00	6.19	11.34	16.49	10.31	1.03	3.09	1.03	.00	.00	63.92
(2)	.18	.05	.32	.09	.00	.00	.00	.00	.28	.51	.74	.46	.05	.14	.05	.00	.00	2.86
8-12	0	2	0	0	0	1	0	0	6	6	8	2	0	0	0	0	0	25
(1)	.00	2.06	.00	.00	.00	1.03	.00	.00	6.19	6.19	8.25	2.06	.00	.00	.00	.00	.00	25.77
(2)	.00	.09	.00	.00	.00	.05	.00	.00	.28	.28	.37	.09	.00	.00	.00	.00	.00	1.15
13-18	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	3
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	3.09	.00	.00	.00	.00	.00	.00	.00	3.09
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.14	.00	.00	.00	.00	.00	.00	.00	.14
19-24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
GT 24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
ALL SPEEDS	5	3	8	2	0	1	0	0	13	20	24	12	1	5	2	1	0	97
(1)	5.15	3.09	8.25	2.06	.00	1.03	.00	.00	13.40	20.62	24.74	12.37	1.03	5.15	2.06	1.03	.00	100.00
(2)	.23	.14	.37	.09	.00	.05	.00	.00	.60	.92	1.11	.55	.05	.23	.09	.05	.00	4.48

(1)=PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PAGE
(2)=PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PERIOD
C= CALM (WIND SPEED LESS THAN OR EQUAL TO .95 MPH)

TABLE 4A-1 (continued)

PILGRIM JUL94-SEP94 MET DATA JOINT FREQUENCY DISTRIBUTION (220-FOOT TOWER)

33.0 FT WIND DATA STABILITY CLASS D CLASS FREQUENCY (PERCENT) = 38.60

WIND DIRECTION FROM

SPEED(MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	VRBL	TOTAL
CALM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
C-3	19	15	9	14	3	3	5	5	5	6	15	8	16	17	15	10	0	165
(1)	2.27	1.79	1.08	1.67	.36	.36	.60	.60	.60	.72	1.79	.96	1.91	2.03	1.79	1.20	.00	19.74
(2)	.88	.69	.42	.65	.14	.14	.23	.23	.23	.28	.69	.37	.74	.78	.69	.46	.00	7.62
4-7	15	6	12	8	12	12	6	8	63	119	55	21	28	13	11	17	0	406
(1)	1.79	.72	1.44	.96	1.44	1.44	.72	.96	7.54	14.23	6.58	2.51	3.35	1.56	1.32	2.03	.00	48.56
(2)	.69	.28	.55	.37	.55	.55	.28	.37	2.91	5.49	2.54	.97	1.29	.60	.51	.78	.00	18.74
8-12	7	29	5	3	3	3	1	1	20	120	30	10	7	3	3	3	0	248
(1)	.84	3.47	.60	.36	.36	.36	.12	.12	2.39	14.35	3.59	1.20	.84	.36	.36	.36	.00	29.67
(2)	.32	1.34	.23	.14	.14	.14	.05	.05	.92	5.54	1.39	.46	.32	.14	.14	.14	.00	11.45
13-18	1	5	3	1	1	0	1	0	1	2	2	0	0	0	0	0	0	17
(1)	.12	.60	.36	.12	.12	.00	.12	.00	.12	.24	.24	.00	.00	.00	.00	.00	.00	2.03
(2)	.05	.23	.14	.05	.05	.00	.05	.00	.05	.09	.09	.00	.00	.00	.00	.00	.00	.78
19-24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
GT 24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
ALL SPEEDS	42	55	29	26	19	18	13	14	89	247	102	39	51	33	29	30	0	836
(1)	5.02	6.58	3.47	3.11	2.27	2.15	1.56	1.67	10.65	29.55	12.20	4.67	6.10	3.95	3.47	3.59	.00	100.00
(2)	1.94	2.54	1.34	1.20	.88	.83	.60	.65	4.11	11.40	4.71	1.80	2.35	1.52	1.34	1.39	.00	38.60

(1)=PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PAGE
(2)=PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PERIOD
C= CALM (WIND SPEED LESS THAN OR EQUAL TO .95 MPH)

TABLE 4A-1 (continued)

PILGRIM JUL94-SEP94 NET DATA JOINT FREQUENCY DISTRIBUTION (220-FOOT TOWER)

33.0 FT WIND DATA STABILITY CLASS E CLASS FREQUENCY (PERCENT) = 26.82

WIND DIRECTION FROM

SPEED(MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	VRBL	TOTAL
CALM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
C-3	5	4	2	2	3	7	12	6	11	12	9	7	9	9	11	5	0	114
(1)	.86	.69	.34	.34	.52	1.20	2.07	1.03	1.89	2.07	1.55	1.20	1.55	1.55	1.89	.86	.00	19.62
(2)	.23	.18	.09	.09	.14	.32	.55	.28	.51	.55	.42	.32	.42	.42	.51	.23	.00	5.26
4-7	18	6	6	8	2	6	2	7	23	78	64	53	31	11	9	14	0	338
(1)	3.10	1.03	1.03	1.38	.34	1.03	.34	1.20	3.96	13.43	11.02	9.12	5.34	1.89	1.55	2.41	.00	58.18
(2)	.83	.28	.28	.37	.09	.28	.09	.32	1.06	3.60	2.95	2.45	1.43	.51	.42	.65	.00	15.60
8-12	4	2	5	0	0	3	0	0	2	58	21	13	8	3	2	2	0	123
(1)	.69	.34	.86	.00	.00	.52	.00	.00	.34	9.98	3.61	2.24	1.38	.52	.34	.34	.00	21.17
(2)	.18	.09	.23	.00	.00	.14	.00	.00	.09	2.68	.97	.60	.37	.14	.09	.09	.00	5.68
13-18	1	1	0	0	0	0	0	0	0	0	0	0	0	1	3	0	0	6
(1)	.17	.17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.17	.52	.00	.00	1.03
(2)	.05	.05	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.14	.00	.00	.28
19-24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
GT 24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
ALL SPEEDS	28	13	13	10	5	16	14	13	36	148	94	73	48	24	25	21	0	581
(1)	4.82	2.24	2.24	1.72	.86	2.75	2.41	2.24	6.20	25.47	16.18	12.56	8.26	4.13	4.30	3.61	.00	100.00
(2)	1.29	.60	.60	.46	.23	.74	.65	.60	1.66	6.83	4.34	3.37	2.22	1.11	1.15	.97	.00	26.82

(1)=PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PAGE
(2)=PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PERIOD
C= CALM (WIND SPEED LESS THAN OR EQUAL TO .95 MPH)

TABLE 4A-1 (continued)

PILGRIM JUL94-SEP94 MET DATA JOINT FREQUENCY DISTRIBUTION (220-FOOT TOWER)

33.0 FT WIND DATA STABILITY CLASS F CLASS FREQUENCY (PERCENT) = 10.85

WIND DIRECTION FROM

SPEED(MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	VRBL	TOTAL
CALM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
C-3	0	0	0	0	0	0	2	7	9	9	7	10	11	6	3	3	0	67
(1)	.00	.00	.00	.00	.00	.00	.85	2.98	3.83	3.83	2.98	4.26	4.68	2.55	1.28	1.28	.00	28.51
(2)	.00	.00	.00	.00	.00	.00	.09	.32	.42	.42	.32	.46	.51	.28	.14	.14	.00	3.09
4-7	3	0	0	0	0	0	0	1	5	15	75	21	2	1	1	1	0	125
(1)	1.28	.00	.00	.00	.00	.00	.00	.43	2.13	6.38	31.91	8.94	.85	.43	.43	.43	.00	53.19
(2)	.14	.00	.00	.00	.00	.00	.00	.05	.23	.69	3.46	.97	.09	.05	.05	.05	.00	5.77
8-12	0	0	0	0	0	0	0	0	1	12	26	3	1	0	0	0	0	43
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.43	5.11	11.06	1.28	.43	.00	.00	.00	.00	18.30
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.05	.55	1.20	.14	.05	.00	.00	.00	.00	1.99
13-18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19-24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
GT 24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
ALL SPEEDS	3	0	0	0	0	0	2	8	15	36	108	34	14	7	4	4	0	235
(1)	1.28	.00	.00	.00	.00	.00	.85	3.40	6.38	15.32	45.96	14.47	5.96	2.98	1.70	1.70	.00	100.00
(2)	.14	.00	.00	.00	.00	.00	.09	.37	.69	1.66	4.99	1.57	.65	.32	.18	.18	.00	10.85

(1)=PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PAGE
(2)=PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PERIOD
C= CALM (WIND SPEED LESS THAN OR EQUAL TO .95 MPH)

TABLE 4A-1 (continued)

PILGRIM JUL94-SEP94 MET DATA JOINT FREQUENCY DISTRIBUTION (220-FOOT TOWER)

33.0 FT WIND DATA STABILITY CLASS G CLASS FREQUENCY (PERCENT) = 3.65

WIND DIRECTION FROM

SPEED(MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	VRBL	TOTAL
CALM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
C-3	0	0	0	0	0	0	0	0	0	4	7	8	2	1	0	0	0	22
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	5.06	8.86	10.13	2.53	1.27	.00	.00	.00	27.85
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.18	.32	.37	.09	.05	.00	.00	.00	1.02
4-7	0	1	1	0	0	0	0	0	0	1	41	9	2	0	0	0	0	55
(1)	.00	1.27	1.27	.00	.00	.00	.00	.00	.00	1.27	51.90	11.39	2.53	.00	.00	.00	.00	69.62
(2)	.00	.05	.05	.00	.00	.00	.00	.00	.00	.05	1.89	.42	.09	.00	.00	.00	.00	2.54
8-12	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.53	.00	.00	.00	.00	.00	.00	2.53
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.09	.00	.00	.00	.00	.00	.00	.09
13-18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19-24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
GT 24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
ALL SPEEDS	0	1	1	0	0	0	0	0	0	5	50	17	4	1	0	0	0	79
(1)	.00	1.27	1.27	.00	.00	.00	.00	.00	.00	6.33	63.29	21.52	5.06	1.27	.00	.00	.00	100.00
(2)	.00	.05	.05	.00	.00	.00	.00	.00	.00	.23	2.31	.78	.18	.05	.00	.00	.00	3.65

(1)=PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PAGE
(2)=PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PERIOD
C= CALM (WIND SPEED LESS THAN OR EQUAL TO .95 MPH)

TABLE 4A-1 (continued)

PILGRIM JUL94-SEP94 MET DATA JOINT FREQUENCY DISTRIBUTION (220-FOOT TOWER)

33.0 FT WIND DATA STABILITY CLASS ALL CLASS FREQUENCY (PERCENT) = 100.00

WIND DIRECTION FROM

SPEED(MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	VRBL	TOTAL
CALM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
C-3	27	22	12	17	6	10	20	18	26	31	40	34	39	38	32	19	0	391
(1)	1.25	1.02	.55	.78	.28	.46	.92	.83	1.20	1.43	1.85	1.57	1.80	1.75	1.48	.88	.00	18.05
(2)	1.25	1.02	.55	.78	.28	.46	.92	.83	1.20	1.43	1.85	1.57	1.80	1.75	1.48	.88	.00	18.05
4-7	68	41	38	22	15	21	10	17	106	251	279	132	74	44	33	46	0	1197
(1)	3.14	1.89	1.75	1.02	.69	.97	.46	.78	4.89	11.59	12.88	6.09	3.42	2.03	1.52	2.12	.00	55.26
(2)	3.14	1.89	1.75	1.02	.69	.97	.46	.78	4.89	11.59	12.88	6.09	3.42	2.03	1.52	2.12	.00	55.26
8-12	16	37	11	3	3	7	1	1	51	228	112	35	21	8	6	6	0	546
(1)	.74	1.71	.51	.14	.14	.32	.05	.05	2.35	10.53	5.17	1.62	.97	.37	.28	.28	.00	25.21
(2)	.74	1.71	.51	.14	.14	.32	.05	.05	2.35	10.53	5.17	1.62	.97	.37	.28	.28	.00	25.21
13-18	2	6	3	1	1	0	1	0	2	9	3	0	0	1	3	0	0	32
(1)	.09	.28	.14	.05	.05	.00	.05	.00	.09	.42	.14	.00	.00	.05	.14	.00	.00	1.48
(2)	.09	.28	.14	.05	.05	.00	.05	.00	.09	.42	.14	.00	.00	.05	.14	.00	.00	1.48
19-24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
GT 24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
ALL SPEEDS	113	106	64	43	25	38	32	36	185	519	434	201	134	91	74	71	0	2166
(1)	5.22	4.89	2.95	1.99	1.15	1.75	1.48	1.66	8.54	23.96	20.04	9.28	6.19	4.20	3.42	3.28	.00	100.00
(2)	5.22	4.89	2.95	1.99	1.15	1.75	1.48	1.66	8.54	23.96	20.04	9.28	6.19	4.20	3.42	3.28	.00	100.00

(1)=PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PAGE
(2)=PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PERIOD
C= CALM (WIND SPEED LESS THAN OR EQUAL TO .95 MPH)

TABLE 4A-1 (continued)

PILGRIM OCT94-DEC94 MET DATA JOINT FREQUENCY DISTRIBUTION (220-FOOT TOWER)

33.0 FT WIND DATA STABILITY CLASS A CLASS FREQUENCY (PERCENT) = 8.03

WIND DIRECTION FROM

SPEED(MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	VRBL	TOTAL
CALM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
C-3	0	3	0	1	0	0	0	0	0	0	0	2	0	1	1	1	0	9
(1)	.00	1.69	.00	.56	.00	.00	.00	.00	.00	.00	.00	1.13	.00	.56	.56	.56	.00	5.08
(2)	.00	.14	.00	.05	.00	.00	.00	.00	.00	.00	.00	.09	.00	.05	.05	.05	.00	.41
4-7	14	19	6	0	0	0	0	0	0	2	1	4	6	10	18	13	0	93
(1)	7.91	10.73	3.39	.00	.00	.00	.00	.00	.00	1.13	.56	2.26	3.39	5.65	10.17	7.34	.00	52.54
(2)	.64	.86	.27	.00	.00	.00	.00	.00	.00	.09	.05	.18	.27	.45	.82	.59	.00	4.22
8-12	7	10	3	0	0	0	0	1	2	7	1	1	5	7	15	6	0	65
(1)	3.95	5.65	1.69	.00	.00	.00	.00	.56	1.13	3.95	.56	.56	2.82	3.95	8.47	3.39	.00	36.72
(2)	.32	.45	.14	.00	.00	.00	.00	.05	.09	.32	.05	.05	.23	.32	.68	.27	.00	2.95
13-18	1	0	0	0	0	0	0	0	0	1	0	0	0	5	2	0	0	9
(1)	.56	.00	.00	.00	.00	.00	.00	.00	.00	.56	.00	.00	.00	2.82	1.13	.00	.00	5.08
(2)	.05	.00	.00	.00	.00	.00	.00	.00	.00	.05	.00	.00	.00	.23	.09	.00	.00	.41
19-24	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.56	.00	.00	.00	.56
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.00	.00	.00	.05
GT 24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
ALL SPEEDS	22	32	9	1	0	0	0	1	2	10	2	7	11	24	36	20	0	177
(1)	12.43	18.08	5.08	.56	.00	.00	.00	.56	1.13	5.65	1.13	3.95	6.21	13.56	20.34	11.30	.00	100.00
(2)	1.00	1.45	.41	.05	.00	.00	.00	.05	.09	.45	.09	.32	.50	1.09	1.63	.91	.00	8.03

(1)=PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PAGE
(2)=PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PERIOD
C= CALM (WIND SPEED LESS THAN OR EQUAL TO .95 MPH)

TABLE 4A-1 (continued)

PILGRIM OCT94-DEC94 MET DATA JOINT FREQUENCY DISTRIBUTION (220-FOOT TOWER)

33.0 FT WIND DATA STABILITY CLASS B CLASS FREQUENCY (PERCENT) = 3.13

WIND DIRECTION FROM

SPEED(MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	VRBL	TOTAL
CALM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
C-3	0	0	1	0	0	0	0	0	0	0	0	0	2	0	0	0	0	3
(1)	.00	.00	1.45	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.90	.00	.00	.00	.00	4.35
(2)	.00	.00	.05	.00	.00	.00	.00	.00	.00	.00	.00	.00	.09	.00	.00	.00	.00	.14
4-7	4	0	2	0	1	1	1	1	0	4	7	1	5	3	0	3	0	33
(1)	5.80	.00	2.90	.00	1.45	1.45	1.45	1.45	.00	5.80	10.14	1.45	7.25	4.35	.00	4.35	.00	47.83
(2)	.18	.00	.09	.00	.05	.05	.05	.05	.00	.18	.32	.05	.23	.14	.00	.14	.00	1.50
8-12	0	1	1	1	0	0	0	1	2	3	7	3	1	3	2	1	0	26
(1)	.00	1.45	1.45	1.45	.00	.00	.00	1.45	2.90	4.35	10.14	4.35	1.45	4.35	2.90	1.45	.00	37.68
(2)	.00	.05	.05	.05	.00	.00	.00	.05	.09	.14	.32	.14	.05	.14	.09	.05	.00	1.18
13-18	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	0	0	6
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	4.35	.00	.00	4.35	.00	.00	.00	8.70
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.14	.00	.00	.14	.00	.00	.00	.27
19-24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.45	.00	.00	1.45
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.00	.00	.05
GT 24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
ALL SPEEDS	4	1	4	1	1	1	1	2	2	7	17	4	8	9	3	4	0	69
(1)	5.80	1.45	5.80	1.45	1.45	1.45	1.45	2.90	2.90	10.14	24.64	5.80	11.59	13.04	4.35	5.80	.00	100.00
(2)	.18	.05	.18	.05	.05	.05	.05	.09	.09	.32	.77	.18	.36	.41	.14	.18	.00	3.13

(1)=PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PAGE
(2)=PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PERIOD
C= CALM (WIND SPEED LESS THAN OR EQUAL TO .95 MPH)

TABLE 4A-1 (continued)

PILGRIM OCT94-DEC94 MET DATA JOINT FREQUENCY DISTRIBUTION (220-FOOT TOWER)

33.0 FT WIND DATA STABILITY CLASS C CLASS FREQUENCY (PERCENT) = 4.49

WIND DIRECTION FROM

SPEED(MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	VRBL	TOTAL
CALM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
C-3	1	2	0	0	0	0	0	0	0	0	0	0	1	0	3	0	0	7
(1)	1.01	2.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.01	.00	3.03	.00	.00	7.07
(2)	.05	.09	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.00	.14	.00	.00	.32
4-7	1	6	1	1	1	1	1	1	3	4	4	6	3	5	0	3	0	41
(1)	1.01	6.06	1.01	1.01	1.01	1.01	1.01	1.01	3.03	4.04	4.04	6.06	3.03	5.05	.00	3.03	.00	41.41
(2)	.05	.27	.05	.05	.05	.05	.05	.05	.14	.18	.18	.27	.14	.23	.00	.14	.00	1.86
8-12	0	4	9	1	0	0	0	0	4	4	6	3	7	1	3	2	0	44
(1)	.00	4.04	9.09	1.01	.00	.00	.00	.00	4.04	4.04	6.06	3.03	7.07	1.01	3.03	2.02	.00	44.44
(2)	.00	.18	.41	.05	.00	.00	.00	.00	.18	.18	.27	.14	.32	.05	.14	.09	.00	2.00
13-18	0	0	0	0	0	0	0	0	0	0	1	0	1	2	3	0	0	7
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.01	.00	1.01	2.02	3.03	.00	.00	7.07
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.00	.05	.09	.14	.00	.00	.32
19-24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
GT 24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
ALL SPEEDS	2	12	10	2	1	1	1	1	7	8	11	9	12	8	9	5	0	99
(1)	2.02	12.12	10.10	2.02	1.01	1.01	1.01	1.01	7.07	8.08	11.11	9.09	12.12	8.08	9.09	5.05	.00	100.00
(2)	.09	.54	.45	.09	.05	.05	.05	.05	.32	.36	.50	.41	.54	.36	.41	.23	.00	4.49

(1)=PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PAGE
(2)=PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PERIOD
C= CALM (WIND SPEED LESS THAN OR EQUAL TO .95 MPH)

TABLE 4A-1 (continued)

PILGRIM OCT94-DEC96 MET DATA JOINT FREQUENCY DISTRIBUTION (220-FOOT TOWER)

33.0 FT WIND DATA STABILITY CLASS D CLASS FREQUENCY (PERCENT) = 38.40

WIND DIRECTION FROM

SPEED(MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	VRBL	TOTAL
CALM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
C-3	4	5	2	0	0	1	2	2	3	0	4	2	7	7	6	1	0	46
(1)	.47	.59	.24	.00	.00	.12	.24	.24	.35	.00	.47	.24	.83	.83	.71	.12	.00	5.44
(2)	.18	.23	.09	.00	.00	.05	.09	.09	.14	.00	.18	.09	.32	.32	.27	.05	.00	2.09
4-7	13	38	15	6	2	14	13	22	21	22	24	23	35	24	26	15	0	313
(1)	1.54	4.49	1.77	.71	.24	1.65	1.54	2.60	2.48	2.60	2.84	2.72	4.14	2.84	3.07	1.77	.00	37.00
(2)	.59	1.72	.68	.27	.09	.64	.59	1.00	.95	1.00	1.09	1.04	1.59	1.09	1.18	.68	.00	14.21
8-12	5	26	45	14	2	8	10	11	19	41	30	23	45	39	31	29	0	378
(1)	.59	3.07	5.32	1.65	.24	.95	1.18	1.30	2.25	4.85	3.55	2.72	5.32	4.61	3.66	3.43	.00	44.68
(2)	.23	1.18	2.04	.64	.09	.36	.45	.50	.86	1.86	1.36	1.04	2.04	1.77	1.41	1.32	.00	17.16
13-18	0	0	10	6	0	7	0	2	4	16	6	1	23	16	12	4	0	107
(1)	.00	.00	1.18	.71	.00	.83	.00	.24	.47	1.89	.71	.12	2.72	1.89	1.42	.47	.00	12.65
(2)	.00	.00	.45	.27	.00	.32	.00	.09	.18	.73	.27	.05	1.04	.73	.54	.18	.00	4.86
19-24	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.24	.00	.00	.00	.00	.00	.00	.00	.24
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.09	.00	.00	.00	.00	.00	.00	.00	.09
GT 24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
ALL SPEEDS	22	69	72	26	4	30	25	37	47	81	64	49	110	86	75	49	0	846
(1)	2.60	8.16	8.51	3.07	.47	3.55	2.96	4.37	5.56	9.57	7.57	5.79	13.00	10.17	8.87	5.79	.00	100.00
(2)	1.00	3.13	3.27	1.18	.18	1.36	1.13	1.68	2.13	3.68	2.91	2.22	4.99	3.90	3.40	2.22	.00	38.40

(1)=PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PAGE
(2)=PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PERIOD
C= CALM (WIND SPEED LESS THAN OR EQUAL TO .95 MPH)

TABLE 4A-1 (continued)

PILGRIM OCT94-DEC94 MET DATA JOINT FREQUENCY DISTRIBUTION (220-FOOT TOWER)

33.0 FT WIND DATA STABILITY CLASS E CLASS FREQUENCY (PERCENT) = 33.32

WIND DIRECTION FROM

SPEED(MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	VRBL	TOTAL
CALM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
C-3	8	4	0	2	0	0	11	8	11	6	4	7	9	13	7	7	0	97
(1)	1.09	.54	.00	.27	.00	.00	1.50	1.09	1.50	.82	.54	.95	1.23	1.77	.95	.95	.00	13.22
(2)	.36	.18	.00	.09	.00	.00	.50	.36	.50	.27	.18	.32	.41	.59	.32	.32	.00	4.40
4-7	9	13	8	2	3	2	11	18	22	57	51	77	63	31	20	9	0	396
(1)	1.23	1.77	1.09	.27	.41	.27	1.50	2.45	3.00	7.77	6.95	10.49	8.58	4.22	2.72	1.23	.00	53.95
(2)	.41	.59	.36	.09	.14	.09	.50	.82	1.00	2.59	2.32	3.50	2.86	1.41	.91	.41	.00	17.98
8-12	8	12	3	0	4	0	0	2	8	52	44	27	43	10	8	9	0	230
(1)	1.09	1.63	.41	.00	.54	.00	.00	.27	1.09	7.08	5.99	3.68	5.86	1.36	1.09	1.23	.00	31.34
(2)	.36	.54	.14	.00	.18	.00	.00	.09	.36	2.36	2.00	1.23	1.95	.45	.36	.41	.00	10.44
13-18	0	0	0	0	0	0	0	0	1	1	6	0	3	0	0	0	0	11
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.14	.14	.82	.00	.41	.00	.00	.00	.00	1.50
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.05	.05	.27	.00	.14	.00	.00	.00	.00	.50
19-24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
GT 24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
ALL SPEEDS	25	29	11	4	7	2	22	28	42	116	105	111	118	54	35	25	0	734
(1)	3.41	3.95	1.50	.54	.95	.27	3.00	3.81	5.72	15.80	14.31	15.12	16.08	7.36	4.77	3.41	.00	100.00
(2)	1.13	1.32	.50	.18	.32	.09	1.00	1.27	1.91	5.27	4.77	5.04	5.36	2.45	1.59	1.13	.00	33.32

(1)=PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PAGE
(2)=PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PERIOD
C= CALM (WIND SPEED LESS THAN OR EQUAL TO .95 MPH)

TABLE 4A-1 (continued)

PILGRIM OCT94-DEC94 MET DATA JOINT FREQUENCY DISTRIBUTION (220-FOOT TOWER)

33.0 FT WIND DATA STABILITY CLASS F CLASS FREQUENCY (PERCENT) = 10.30

WIND DIRECTION FROM

SPEED(MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	VRBL	TOTAL
CALM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.44	.00	.00	.00	.00	.00	.00	.44
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.00	.00	.00	.00	.00	.00	.05
C-3	0	1	0	0	0	0	3	2	7	2	9	18	12	4	3	0	0	61
(1)	.00	.44	.00	.00	.00	.00	1.32	.88	3.08	.88	3.96	7.93	5.29	1.76	1.32	.00	.00	26.87
(2)	.00	.05	.00	.00	.00	.00	.14	.09	.32	.09	.41	.82	.54	.18	.14	.00	.00	2.77
4-7	1	1	0	0	0	0	0	0	9	25	52	20	10	3	3	1	0	125
(1)	.44	.44	.00	.00	.00	.00	.00	.00	3.96	11.01	22.91	8.81	4.41	1.32	1.32	.44	.00	55.07
(2)	.05	.05	.00	.00	.00	.00	.00	.00	.41	1.13	2.36	.91	.45	.14	.14	.05	.00	5.67
8-12	0	0	0	0	0	0	0	0	0	9	25	0	0	0	0	0	0	34
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	3.96	11.01	.00	.00	.00	.00	.00	.00	14.98
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.41	1.13	.00	.00	.00	.00	.00	.00	1.54
13-18	0	0	0	0	0	0	0	0	0	2	4	0	0	0	0	0	0	6
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.88	1.76	.00	.00	.00	.00	.00	.00	2.64
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.09	.18	.00	.00	.00	.00	.00	.00	.27
19-24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
GT 24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
ALL SPEEDS	1	2	0	0	0	0	3	2	16	38	91	38	22	7	6	1	0	227
(1)	.44	.88	.00	.00	.00	.00	1.32	.88	7.05	16.74	40.09	16.74	9.69	3.08	2.64	.44	.00	100.00
(2)	.05	.09	.00	.00	.00	.00	.14	.09	.73	1.72	4.13	1.72	1.00	.32	.27	.05	.00	10.30

(1)=PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PAGE
(2)=PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PERIOD
C= CALM (WIND SPEED LESS THAN OR EQUAL TO .95 MPH)

TABLE 4A-1 (continued)

PILGRIM OCT94-DEC94 MET DATA JOINT FREQUENCY DISTRIBUTION (220-FOOT TOWER)

33.0 FT WIND DATA STABILITY CLASS G CLASS FREQUENCY (PERCENT) = 2.32

WIND DIRECTION FROM

SPEED(MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	VRBL	TOTAL
CALM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
C-3	0	0	0	0	0	0	0	0	1	0	3	4	1	0	0	0	0	9
(1)	.00	.00	.00	.00	.00	.00	.00	.00	1.96	.00	5.88	7.84	1.96	.00	.00	.00	.00	17.65
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.05	.00	.14	.18	.05	.00	.00	.00	.00	.41
4-7	0	0	0	0	0	0	0	0	0	0	14	9	1	0	0	0	0	24
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	27.45	17.65	1.96	.00	.00	.00	.00	47.06
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.64	.41	.05	.00	.00	.00	.00	1.09
8-12	0	0	0	0	0	0	0	0	0	3	10	2	0	0	0	0	0	15
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	5.88	19.61	3.92	.00	.00	.00	.00	.00	29.41
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.14	.45	.09	.00	.00	.00	.00	.00	.68
13-18	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	0	0	3
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	3.92	1.96	.00	.00	.00	.00	.00	5.88
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.09	.05	.00	.00	.00	.00	.00	.14
19-24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
GT 24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
ALL SPEEDS	0	0	0	0	0	0	0	0	1	3	29	16	2	0	0	0	0	51
(1)	.00	.00	.00	.00	.00	.00	.00	.00	1.96	5.88	56.86	31.37	3.92	.00	.00	.00	.00	100.00
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.05	.14	1.32	.73	.09	.00	.00	.00	.00	2.32

(1)=PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PAGE
(2)=PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PERIOD
C= CALM (WIND SPEED LESS THAN OR EQUAL TO .95 MPH)

TABLE 4A-1 (continued)

PILGRIM OCT94-DEC94 MET DATA JOINT FREQUENCY DISTRIBUTION (220-FOOT TOWER)

33.0 FT WIND DATA STABILITY CLASS ALL CLASS FREQUENCY (PERCENT) = 100.00

WIND DIRECTION FROM

SPEED(MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	VRBL	TOTAL
CALM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.00	.00	.00	.00	.00	.00	.05
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.00	.00	.00	.00	.00	.00	.05
C-3	13	15	3	3	0	1	16	12	22	8	20	33	32	25	20	9	0	232
(1)	.59	.68	.14	.14	.00	.05	.73	.54	1.00	.36	.91	1.50	1.45	1.13	.91	.41	.00	10.53
(2)	.59	.68	.14	.14	.00	.05	.73	.54	1.00	.36	.91	1.50	1.45	1.13	.91	.41	.00	10.53
4-7	42	77	32	9	7	18	26	42	55	114	153	140	123	76	67	44	0	1025
(1)	1.91	3.50	1.45	.41	.32	.82	1.18	1.91	2.50	5.17	6.95	6.35	5.58	3.45	3.04	2.00	.00	46.53
(2)	1.91	3.50	1.45	.41	.32	.82	1.18	1.91	2.50	5.17	6.95	6.35	5.58	3.45	3.04	2.00	.00	46.53
8-12	20	53	61	16	6	8	10	15	35	119	123	59	101	60	59	47	0	792
(1)	.91	2.41	2.77	.73	.27	.36	.45	.68	1.59	5.40	5.58	2.68	4.58	2.72	2.68	2.13	.00	35.95
(2)	.91	2.41	2.77	.73	.27	.36	.45	.68	1.59	5.40	5.58	2.68	4.58	2.72	2.68	2.13	.00	35.95
13-18	1	0	10	6	0	7	0	2	5	20	22	2	27	26	17	4	0	149
(1)	.05	.00	.45	.27	.00	.32	.00	.09	.23	.91	1.00	.09	1.23	1.18	.77	.18	.00	6.76
(2)	.05	.00	.45	.27	.00	.32	.00	.09	.23	.91	1.00	.09	1.23	1.18	.77	.18	.00	6.76
19-24	0	0	0	0	0	0	0	0	0	2	0	0	0	1	1	0	0	4
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.09	.00	.00	.00	.05	.05	.00	.00	.18
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.09	.00	.00	.00	.05	.05	.00	.00	.18
GT 24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
ALL SPEEDS	76	145	106	34	13	34	52	71	117	263	319	234	283	188	164	104	0	2203
(1)	3.45	6.58	4.81	1.54	.59	1.54	2.36	3.22	5.31	11.94	14.48	10.62	12.85	8.53	7.44	4.72	.00	100.00
(2)	3.45	6.58	4.81	1.54	.59	1.54	2.36	3.22	5.31	11.94	14.48	10.62	12.85	8.53	7.44	4.72	.00	100.00

(1)=PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PAGE
(2)=PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PERIOD
C= CALM (WIND SPEED LESS THAN OR EQUAL TO .95 MPH)

TABLE 4A-2

DISTRIBUTION OF WIND DIRECTIONS AND SPEEDS FOR THE 220 FT. LEVEL OF THE 220 FT. TOWER

PILGRIM JUL94-SEP94 MET DATA JOINT FREQUENCY DISTRIBUTION (220-FOOT TOWER)

220.0 FT WIND DATA STABILITY CLASS A CLASS FREQUENCY (PERCENT) = 10.85

WIND DIRECTION FROM

SPEED(MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	VRBL	TOTAL
CALM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
C-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
4-7	7	6	3	1	1	0	0	0	0	0	1	1	2	1	4	4	0	31
(1)	2.98	2.55	1.28	.43	.43	.00	.00	.00	.00	.00	.43	.43	.85	.43	1.70	1.70	.00	13.19
(2)	.32	.28	.14	.05	.05	.00	.00	.00	.00	.00	.05	.05	.09	.05	.18	.18	.00	1.43
8-12	14	6	5	4	2	2	0	1	3	9	10	6	7	5	4	6	0	84
(1)	5.96	2.55	2.13	1.70	.85	.85	.00	.43	1.28	3.83	4.26	2.55	2.98	2.13	1.70	2.55	.00	35.74
(2)	.65	.28	.23	.18	.09	.09	.00	.05	.14	.42	.46	.28	.32	.23	.18	.28	.00	3.88
13-18	6	1	1	0	0	2	0	1	15	16	11	11	5	6	1	5	0	81
(1)	2.55	.43	.43	.00	.00	.85	.00	.43	6.38	6.81	4.68	4.68	2.13	2.55	.43	2.13	.00	34.47
(2)	.28	.05	.05	.00	.00	.09	.00	.05	.69	.74	.51	.51	.23	.28	.05	.23	.00	3.74
19-24	6	1	0	1	1	0	0	0	1	5	4	0	0	5	2	7	0	33
(1)	2.55	.43	.00	.43	.43	.00	.00	.00	.43	2.13	1.70	.00	.00	2.13	.85	2.98	.00	14.04
(2)	.28	.05	.00	.05	.05	.00	.00	.00	.05	.23	.18	.00	.00	.23	.09	.32	.00	1.52
GT 24	2	0	0	0	0	0	0	0	0	0	0	0	0	3	0	1	0	6
(1)	.85	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.28	.00	.43	.00	2.55
(2)	.09	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.14	.00	.05	.00	.28
ALL SPEEDS	35	14	9	6	4	4	0	2	19	30	26	18	14	20	11	23	0	235
(1)	14.89	5.96	3.83	2.55	1.70	1.70	.00	.85	8.09	12.77	11.06	7.66	5.96	8.51	4.68	9.79	.00	100.00
(2)	1.62	.65	.42	.28	.18	.18	.00	.09	.88	1.39	1.20	.83	.65	.92	.51	1.06	.00	10.85

(1)=PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PAGE
(2)=PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PERIOD
C= CALM (WIND SPEED LESS THAN OR EQUAL TO .95 MPH)

TABLE 4A-2 (continued)

PILGRIM JUL94-SEP94 MET DATA JOINT FREQUENCY DISTRIBUTION (220-FOOT TOWER)

220.0 FT WIND DATA STABILITY CLASS B CLASS FREQUENCY (PERCENT) = 4.76

WIND DIRECTION FROM

SPEED(MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	VRBL	TOTAL
CALM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
C-3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
(1)	.97	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.97
(2)	.05	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05
4-7	1	2	1	1	4	0	0	0	0	0	2	1	1	0	3	0	0	16
(1)	.97	1.94	.97	.97	3.88	.00	.00	.00	.00	.00	1.94	.97	.97	.00	2.91	.00	.00	15.53
(2)	.05	.09	.05	.05	.18	.00	.00	.00	.00	.00	.09	.05	.05	.00	.14	.00	.00	.74
8-12	0	0	2	0	0	0	0	0	3	8	12	6	1	1	0	1	0	34
(1)	.00	.00	1.94	.00	.00	.00	.00	.00	2.91	7.77	11.65	5.83	.97	.97	.00	.97	.00	33.01
(2)	.00	.00	.09	.00	.00	.00	.00	.00	.14	.37	.55	.28	.05	.05	.00	.05	.00	1.57
13-18	1	0	0	0	0	2	0	1	4	11	9	2	4	1	1	1	0	37
(1)	.97	.00	.00	.00	.00	1.94	.00	.97	3.88	10.68	8.74	1.94	3.88	.97	.97	.97	.00	35.92
(2)	.05	.00	.00	.00	.00	.09	.00	.05	.18	.51	.42	.09	.18	.05	.05	.05	.00	1.71
19-24	0	0	0	0	1	0	0	0	1	6	2	0	0	1	0	0	0	11
(1)	.00	.00	.00	.00	.97	.00	.00	.00	.97	5.83	1.94	.00	.00	.97	.00	.00	.00	10.68
(2)	.00	.00	.00	.00	.05	.00	.00	.00	.05	.28	.09	.00	.00	.05	.00	.00	.00	.51
GT 24	1	0	0	0	0	0	0	0	0	1	1	0	0	1	0	0	0	4
(1)	.97	.00	.00	.00	.00	.00	.00	.00	.00	.97	.97	.00	.00	.97	.00	.00	.00	3.88
(2)	.05	.00	.00	.00	.00	.00	.00	.00	.00	.05	.05	.00	.00	.05	.00	.00	.00	.18
ALL SPEEDS	4	2	3	1	5	2	0	1	8	26	26	9	6	4	4	2	0	103
(1)	3.88	1.94	2.91	.97	4.85	1.94	.00	.97	7.77	25.24	25.24	8.74	5.83	3.88	3.88	1.94	.00	100.00
(2)	.18	.09	.14	.05	.23	.09	.00	.05	.37	1.20	1.20	.42	.28	.18	.18	.09	.00	4.76

(1)=PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PAGE
(2)=PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PERIOD
C= CALM (WIND SPEED LESS THAN OR EQUAL TO .95 MPH)

TABLE 4A-2 (continued)

PILGRIM JUL94-SEP94 MET DATA JOINT FREQUENCY DISTRIBUTION (220-FOOT TOWER)

220.0 FT WIND DATA STABILITY CLASS C CLASS FREQUENCY (PERCENT) = 4.48

WIND DIRECTION FROM

SPEED(MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	VRBL	TOTAL
CALM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
C-3	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
(1)	.00	.00	1.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.03
(2)	.00	.00	.05	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05
4-7	1	2	2	1	0	0	1	0	0	0	1	2	2	1	1	3	0	17
(1)	1.03	2.06	2.06	1.03	.00	.00	1.03	.00	.00	.00	1.03	2.06	2.06	1.03	1.03	3.09	.00	17.53
(2)	.05	.09	.09	.05	.00	.00	.05	.00	.00	.00	.05	.09	.09	.05	.05	.14	.00	.78
8-12	0	1	4	1	0	1	0	0	4	7	10	6	2	0	0	0	0	36
(1)	.00	1.03	4.12	1.03	.00	1.03	.00	.00	4.12	7.22	10.31	6.19	2.06	.00	.00	.00	.00	37.11
(2)	.00	.05	.18	.05	.00	.05	.00	.00	.18	.32	.46	.28	.09	.00	.00	.00	.00	1.66
13-18	0	0	1	0	0	0	0	0	2	12	7	0	4	0	0	1	0	27
(1)	.00	.00	1.03	.00	.00	.00	.00	.00	2.06	12.37	7.22	.00	4.12	.00	.00	1.03	.00	27.84
(2)	.00	.00	.05	.00	.00	.00	.00	.00	.09	.55	.32	.00	.18	.00	.00	.05	.00	1.25
19-24	1	2	0	1	0	0	0	0	1	6	1	0	1	1	0	0	0	14
(1)	1.03	2.06	.00	1.03	.00	.00	.00	.00	1.03	6.19	1.03	.00	1.03	1.03	.00	.00	.00	14.43
(2)	.05	.09	.00	.05	.00	.00	.00	.00	.05	.28	.05	.00	.05	.05	.00	.00	.00	.65
GT 24	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.06	.00	.00	.00	.00	.00	.00	.00	2.06
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.09	.00	.00	.00	.00	.00	.00	.00	.09
ALL SPEEDS	2	5	8	3	0	1	1	0	7	27	19	8	9	2	1	4	0	97
(1)	2.06	5.15	8.25	3.09	.00	1.03	1.03	.00	7.22	27.84	19.59	8.25	9.28	2.06	1.03	4.12	.00	100.00
(2)	.09	.23	.37	.14	.00	.05	.05	.00	.32	1.25	.88	.37	.42	.09	.05	.18	.00	4.48

(1)=PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PAGE
(2)=PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PERIOD
C= CALM (WIND SPEED LESS THAN OR EQUAL TO .95 MPH)

TABLE 4A-2 (continued)

PILGRIM JUL94-SEP94 MET DATA JOINT FREQUENCY DISTRIBUTION (220-FOOT TOWER)

220.0 FT WIND DATA STABILITY CLASS D CLASS FREQUENCY (PERCENT) = 38.60

WIND DIRECTION FROM

SPEED(MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	VRBL	TOTAL
CALM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
C-3	2	4	3	4	0	0	0	0	2	1	0	0	0	1	0	1	0	18
(1)	.24	.48	.36	.48	.00	.00	.00	.00	.24	.12	.00	.00	.00	.12	.00	.12	.00	2.15
(2)	.09	.18	.14	.18	.00	.00	.00	.00	.09	.05	.00	.00	.00	.05	.00	.05	.00	.83
4-7	6	8	14	23	17	13	4	4	4	8	5	10	8	6	2	5	0	137
(1)	.72	.96	1.67	2.75	2.03	1.56	.48	.48	.48	.96	.60	1.20	.96	.72	.24	.60	.00	16.39
(2)	.28	.37	.65	1.06	.78	.60	.18	.18	.18	.37	.23	.46	.37	.28	.09	.23	.00	6.33
8-12	14	6	2	5	11	25	6	6	14	41	30	13	14	6	14	14	0	221
(1)	1.67	.72	.24	.60	1.32	2.99	.72	.72	1.67	4.90	3.59	1.56	1.67	.72	1.67	1.67	.00	26.44
(2)	.65	.28	.09	.23	.51	1.15	.28	.28	.65	1.89	1.39	.60	.65	.28	.65	.65	.00	10.20
13-18	0	2	1	2	3	6	4	2	19	143	55	4	14	12	7	5	0	279
(1)	.00	.24	.12	.24	.36	.72	.48	.24	2.27	17.11	6.58	.48	1.67	1.44	.84	.60	.00	33.37
(2)	.00	.09	.05	.09	.14	.28	.18	.09	.88	6.60	2.54	.18	.65	.55	.32	.23	.00	12.88
19-24	0	10	2	4	2	1	0	0	3	57	23	2	9	5	0	1	0	119
(1)	.00	1.20	.24	.48	.24	.12	.00	.00	.36	6.82	2.75	.24	1.08	.60	.00	.12	.00	14.23
(2)	.00	.46	.09	.18	.09	.05	.00	.00	.14	2.63	1.06	.09	.42	.23	.00	.05	.00	5.49
GT 24	18	13	4	4	9	6	0	0	0	1	1	0	0	3	0	3	0	62
(1)	2.15	1.56	.48	.48	1.08	.72	.00	.00	.00	.12	.12	.00	.00	.36	.00	.36	.00	7.42
(2)	.83	.60	.18	.18	.42	.28	.00	.00	.00	.05	.05	.00	.00	.14	.00	.14	.00	2.86
ALL SPEEDS	40	43	26	42	42	51	14	12	42	251	114	29	45	33	23	29	0	836
(1)	4.78	5.14	3.11	5.02	5.02	6.10	1.67	1.44	5.02	30.02	13.64	3.47	5.38	3.95	2.75	3.47	.00	100.00
(2)	1.85	1.99	1.20	1.94	1.94	2.35	.65	.55	1.94	11.59	5.26	1.34	2.08	1.52	1.06	1.34	.00	38.60

(1)=PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PAGE
(2)=PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PERIOD
C= CALM (WIND SPEED LESS THAN OR EQUAL TO .95 MPH)

TABLE 4A-2 (continued)

PILGRIM JUL94-SEP94 MET DATA JOINT FREQUENCY DISTRIBUTION (220-FOOT TOWER)

220.0 FT WIND DATA STABILITY CLASS E CLASS FREQUENCY (PERCENT) = 26.82

WIND DIRECTION FROM

SPEED(MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	VRBL	TOTAL
CALM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
C-3	3	2	0	3	0	0	0	1	0	1	0	1	1	0	2	0	0	14
(1)	.52	.34	.00	.52	.00	.00	.00	.17	.00	.17	.00	.17	.17	.00	.34	.00	.00	2.41
(2)	.14	.09	.00	.14	.00	.00	.00	.05	.00	.05	.00	.05	.05	.00	.09	.00	.00	.65
4-7	2	3	2	7	5	17	7	5	4	2	1	4	3	5	2	4	0	73
(1)	.34	.52	.34	1.20	.86	2.93	1.20	.86	.69	.34	.17	.69	.52	.86	.34	.69	.00	12.56
(2)	.09	.14	.09	.32	.23	.78	.32	.23	.18	.09	.05	.18	.14	.23	.09	.18	.00	3.37
8-12	5	3	3	2	4	8	5	10	9	9	12	11	7	5	6	9	0	108
(1)	.86	.52	.52	.34	.69	1.38	.86	1.72	1.55	1.55	2.07	1.89	1.20	.86	1.03	1.55	.00	18.59
(2)	.23	.14	.14	.09	.18	.37	.23	.46	.42	.42	.55	.51	.32	.23	.28	.42	.00	4.99
13-18	1	1	2	5	3	3	2	2	7	48	61	26	35	16	9	5	0	226
(1)	.17	.17	.34	.86	.52	.52	.34	.34	1.20	8.26	10.50	4.48	6.02	2.75	1.55	.86	.00	38.90
(2)	.05	.05	.09	.23	.14	.14	.09	.09	.32	2.22	2.82	1.20	1.62	.74	.42	.23	.00	10.43
19-24	3	0	4	1	0	0	0	0	0	49	27	14	15	15	3	2	0	133
(1)	.52	.00	.69	.17	.00	.00	.00	.00	.00	8.43	4.65	2.41	2.58	2.58	.52	.34	.00	22.89
(2)	.14	.00	.18	.05	.00	.00	.00	.00	.00	2.26	1.25	.65	.69	.69	.14	.09	.00	6.14
GT 24	5	1	0	0	2	0	1	0	0	1	0	0	1	5	8	3	0	27
(1)	.86	.17	.00	.00	.34	.00	.17	.00	.00	.17	.00	.00	.17	.86	1.38	.52	.00	4.65
(2)	.23	.05	.00	.00	.09	.00	.05	.00	.00	.05	.00	.00	.05	.23	.37	.14	.00	1.25
ALL SPEEDS	19	10	11	18	14	28	15	18	20	110	101	56	62	46	30	23	0	581
(1)	3.27	1.72	1.89	3.10	2.41	4.82	2.58	3.10	3.44	18.93	17.38	9.64	10.67	7.92	5.16	3.96	.00	100.00
(2)	.88	.46	.51	.83	.65	1.29	.69	.83	.92	5.08	4.66	2.59	2.86	2.12	1.39	1.06	.00	26.82

(1)=PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PAGE
(2)=PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PERIOD
C= CALM (WIND SPEED LESS THAN OR EQUAL TO .95 MPH)

TABLE 4A-2 (continued)

PILGRIM JUL94-SEP94 MET DATA JOINT FREQUENCY DISTRIBUTION (220-FOOT TOWER)

220.0 FT WIND DATA STABILITY CLASS F CLASS FREQUENCY (PERCENT) = 10.85

WIND DIRECTION FROM

SPEED(MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	VRBL	TOTAL
CALM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
C-3	2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	4
(1)	.85	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.43	.00	.00	.43	.00	1.70
(2)	.09	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.00	.00	.05	.00	.18
4-7	0	1	0	1	1	6	5	1	1	4	2	1	3	1	0	1	0	28
(1)	.00	.43	.00	.43	.43	2.55	2.13	.43	.43	1.70	.85	.43	1.28	.43	.00	.43	.00	11.91
(2)	.00	.05	.00	.05	.05	.28	.23	.05	.05	.18	.09	.05	.14	.05	.00	.05	.00	1.29
8-12	2	1	0	2	0	4	6	3	1	4	4	5	6	7	7	6	0	58
(1)	.85	.43	.00	.85	.00	1.70	2.55	1.28	.43	1.70	1.70	2.13	2.55	2.98	2.98	2.55	.00	24.68
(2)	.09	.05	.00	.09	.00	.18	.28	.14	.05	.18	.18	.23	.28	.32	.32	.28	.00	2.68
13-18	0	1	0	0	0	0	0	2	2	3	15	36	32	6	2	0	0	99
(1)	.00	.43	.00	.00	.00	.00	.00	.85	.85	1.28	6.38	15.32	13.62	2.55	.85	.00	.00	42.13
(2)	.00	.05	.00	.00	.00	.00	.00	.09	.09	.14	.69	1.66	1.48	.28	.09	.00	.00	4.57
19-24	2	0	0	0	0	0	0	0	4	4	17	13	2	1	0	0	0	43
(1)	.85	.00	.00	.00	.00	.00	.00	.00	1.70	1.70	7.23	5.53	.85	.43	.00	.00	.00	18.30
(2)	.09	.00	.00	.00	.00	.00	.00	.00	.18	.18	.78	.60	.09	.05	.00	.00	.00	1.99
GT 24	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	3
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.28	.00	.00	.00	.00	.00	.00	1.28
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.14	.00	.00	.00	.00	.00	.00	.14
ALL SPEEDS	6	3	0	3	1	10	11	6	8	15	41	55	44	15	9	8	0	235
(1)	2.55	1.28	.00	1.28	.43	4.26	4.68	2.55	3.40	6.38	17.45	23.40	18.72	6.38	3.83	3.40	.00	100.00
(2)	.28	.14	.00	.14	.05	.46	.51	.28	.37	.69	1.89	2.54	2.03	.69	.42	.37	.00	10.85

(1)=PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PAGE
(2)=PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PERIOD
C= CALM (WIND SPEED LESS THAN OR EQUAL TO .95 MPH)

TABLE 4A-2 (continued)

PILGRIM JUL94-SEP94 MET DATA JOINT FREQUENCY DISTRIBUTION (220-FOOT TOWER)

220.0 FT WIND DATA STABILITY CLASS G CLASS FREQUENCY (PERCENT) = 3.65

WIND DIRECTION FROM

SPEED(MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	VRBL	TOTAL
CALM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
C-3	1	0	0	0	0	0	1	0	1	1	1	0	0	0	1	1	0	7
(1)	1.27	.00	.00	.00	.00	.00	1.27	.00	1.27	1.27	1.27	.00	.00	.00	1.27	1.27	.00	8.86
(2)	.05	.00	.00	.00	.00	.00	.05	.00	.05	.05	.05	.00	.00	.00	.05	.05	.00	.32
4-7	2	0	1	2	1	0	1	1	1	2	4	4	2	1	0	1	0	23
(1)	2.53	.00	1.27	2.53	1.27	.00	1.27	1.27	1.27	2.53	5.06	5.06	2.53	1.27	.00	1.27	.00	29.11
(2)	.09	.00	.05	.09	.05	.00	.05	.05	.05	.09	.18	.18	.09	.05	.00	.05	.00	1.06
8-12	0	0	0	0	0	0	0	1	1	1	8	7	2	2	2	0	0	24
(1)	.00	.00	.00	.00	.00	.00	.00	1.27	1.27	1.27	10.13	8.86	2.53	2.53	2.53	.00	.00	30.38
(2)	.00	.00	.00	.00	.00	.00	.00	.05	.05	.05	.37	.32	.09	.09	.09	.00	.00	1.11
13-18	0	0	0	0	0	0	0	1	0	1	1	5	10	2	4	0	0	24
(1)	.00	.00	.00	.00	.00	.00	.00	1.27	.00	1.27	1.27	6.33	12.66	2.53	5.06	.00	.00	30.38
(2)	.00	.00	.00	.00	.00	.00	.00	.05	.00	.05	.05	.23	.46	.09	.18	.00	.00	1.11
19-24	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.27	.00	.00	.00	.00	.00	1.27
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.00	.00	.00	.00	.00	.05
GT 24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
ALL SPEEDS	3	0	1	2	1	0	2	3	3	5	14	17	14	5	7	2	0	79
(1)	3.80	.00	1.27	2.53	1.27	.00	2.53	3.80	3.80	6.33	17.72	21.52	17.72	6.33	8.86	2.53	.00	100.00
(2)	.14	.00	.05	.09	.05	.00	.09	.14	.14	.23	.65	.78	.65	.23	.32	.09	.00	3.65

(1)=PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PAGE
(2)=PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PERIOD
C= CALM (WIND SPEED LESS THAN OR EQUAL TO .95 MPH)

TABLE 4A-2 (continued)

PILGRIM JUL94-SEP94 MET DATA JOINT FREQUENCY DISTRIBUTION (220-FOOT TOWER)

220.0 FT WIND DATA STABILITY CLASS ALL CLASS FREQUENCY (PERCENT) = 100.00

WIND DIRECTION FROM

SPEED(MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	VRBL	TOTAL
CALM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
C-3	9	6	4	7	0	0	1	1	3	3	1	1	2	1	3	3	0	45
(1)	.42	.28	.18	.32	.00	.00	.05	.05	.14	.14	.05	.05	.09	.05	.14	.14	.00	2.08
(2)	.42	.28	.18	.32	.00	.00	.05	.05	.14	.14	.05	.05	.09	.05	.14	.14	.00	2.08
4-7	19	22	23	36	29	36	18	11	10	16	16	23	21	15	12	18	0	325
(1)	.88	1.02	1.06	1.66	1.34	1.66	.83	.51	.46	.74	.74	1.06	.97	.69	.55	.83	.00	15.00
(2)	.88	1.02	1.06	1.66	1.34	1.66	.83	.51	.46	.74	.74	1.06	.97	.69	.55	.83	.00	15.00
8-12	35	17	16	14	17	40	17	21	35	79	86	54	39	26	33	36	0	565
(1)	1.62	.78	.74	.65	.78	1.85	.78	.97	1.62	3.65	3.97	2.49	1.80	1.20	1.52	1.66	.00	26.08
(2)	1.62	.78	.74	.65	.78	1.85	.78	.97	1.62	3.65	3.97	2.49	1.80	1.20	1.52	1.66	.00	26.08
13-18	8	5	5	7	6	13	6	9	49	234	159	84	104	43	24	17	0	773
(1)	.37	.23	.23	.32	.28	.60	.28	.42	2.26	10.80	7.34	3.88	4.80	1.99	1.11	.78	.00	35.69
(2)	.37	.23	.23	.32	.28	.60	.28	.42	2.26	10.80	7.34	3.88	4.80	1.99	1.11	.78	.00	35.69
19-24	12	13	6	7	4	1	0	0	10	127	74	30	27	28	5	10	0	354
(1)	.55	.60	.28	.32	.18	.05	.00	.00	.46	5.86	3.42	1.39	1.25	1.29	.23	.46	.00	16.34
(2)	.55	.60	.28	.32	.18	.05	.00	.00	.46	5.86	3.42	1.39	1.25	1.29	.23	.46	.00	16.34
GT 24	26	14	4	4	11	6	1	0	0	5	5	0	1	12	8	7	0	104
(1)	1.20	.65	.18	.18	.51	.28	.05	.00	.00	.23	.23	.00	.05	.55	.37	.32	.00	4.80
(2)	1.20	.65	.18	.18	.51	.28	.05	.00	.00	.23	.23	.00	.05	.55	.37	.32	.00	4.80
ALL SPEEDS	109	77	58	75	67	96	43	42	107	464	341	192	194	125	85	91	0	2166
(1)	5.03	3.55	2.68	3.46	3.09	4.43	1.99	1.94	4.94	21.42	15.74	8.86	8.96	5.77	3.92	4.20	.00	100.00
(2)	5.03	3.55	2.68	3.46	3.09	4.43	1.99	1.94	4.94	21.42	15.74	8.86	8.96	5.77	3.92	4.20	.00	100.00

(1)=PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PAGE
(2)=PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PERIOD
C= CALM (WIND SPEED LESS THAN OR EQUAL TO .95 MPH)

TABLE 4A-2 (continued)

PILGRIM OCT94-DEC94 MET DATA JOINT FREQUENCY DISTRIBUTION (220-FOOT TOWER)

220.0 FT WIND DATA STABILITY CLASS A CLASS FREQUENCY (PERCENT) = 8.03

WIND DIRECTION FROM

SPEED(MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	VRBL	TOTAL
CALM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
C-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
4-7	3	5	2	0	0	0	0	0	0	0	0	0	0	1	3	0	0	14
(1)	1.69	2.82	1.13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.56	1.69	.00	.00	7.91
(2)	.14	.23	.09	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.14	.00	.00	.64
8-12	8	7	0	0	0	0	0	0	0	0	0	3	5	7	3	6	0	39
(1)	4.52	3.95	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.69	2.82	3.95	1.69	3.39	.00	22.03
(2)	.36	.32	.00	.00	.00	.00	.00	.00	.00	.00	.00	.14	.23	.32	.14	.27	.00	1.77
13-18	9	4	0	0	1	0	0	1	1	8	2	0	2	14	10	10	0	62
(1)	5.08	2.26	.00	.00	.56	.00	.00	.56	.56	4.52	1.13	.00	1.13	7.91	5.65	5.65	.00	35.03
(2)	.41	.18	.00	.00	.05	.00	.00	.05	.05	.36	.09	.00	.09	.64	.45	.45	.00	2.81
19-24	5	0	1	0	0	0	0	0	0	1	1	0	3	9	4	8	0	32
(1)	2.82	.00	.56	.00	.00	.00	.00	.00	.00	.56	.56	.00	1.69	5.08	2.26	4.52	.00	18.08
(2)	.23	.00	.05	.00	.00	.00	.00	.00	.00	.05	.05	.00	.14	.41	.18	.36	.00	1.45
GT 24	4	0	1	0	0	0	0	0	0	0	0	0	0	12	12	1	0	30
(1)	2.26	.00	.56	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	6.78	6.78	.56	.00	16.95
(2)	.18	.00	.05	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.54	.54	.05	.00	1.36
ALL SPEEDS	29	16	4	0	1	0	0	1	1	9	3	3	10	43	32	25	0	177
(1)	16.38	9.04	2.26	.00	.56	.00	.00	.56	.56	5.08	1.69	1.69	5.65	24.29	18.08	14.12	.00	100.00
(2)	1.32	.73	.18	.00	.05	.00	.00	.05	.05	.41	.14	.14	.45	1.95	1.45	1.13	.00	8.03

(1)=PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PAGE
(2)=PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PERIOD
C= CALM (WIND SPEED LESS THAN OR EQUAL TO .95 MPH)

TABLE 4A-2 (continued)

PILGRIM OCT94-DEC94 MET DATA JOINT FREQUENCY DISTRIBUTION (220-FOOT TOWER)

220.0 FT WIND DATA STABILITY CLASS B CLASS FREQUENCY (PERCENT) = 3.13

WIND DIRECTION FROM

SPEED(MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	VRBL	TOTAL
CALM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
C-3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
(1)	1.45	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.45
(2)	.05	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05
4-7	0	4	0	1	0	0	0	0	0	0	0	2	0	0	0	1	0	8
(1)	.00	5.80	.00	1.45	.00	.00	.00	.00	.00	.00	.00	2.90	.00	.00	.00	1.45	.00	11.59
(2)	.00	.18	.00	.05	.00	.00	.00	.00	.00	.00	.00	.09	.00	.00	.00	.05	.00	.36
8-12	0	0	0	0	0	1	0	2	1	1	5	4	2	1	1	5	0	23
(1)	.00	.00	.00	.00	.00	1.45	.00	2.90	1.45	1.45	7.25	5.80	2.90	1.45	1.45	7.25	.00	33.33
(2)	.00	.00	.00	.00	.00	.05	.00	.09	.05	.05	.23	.18	.09	.05	.05	.23	.00	1.04
13-18	0	0	0	0	1	0	1	1	0	5	3	0	0	3	0	0	0	14
(1)	.00	.00	.00	.00	1.45	.00	1.45	1.45	.00	7.25	4.35	.00	.00	4.35	.00	.00	.00	20.29
(2)	.00	.00	.00	.00	.05	.00	.05	.05	.00	.23	.14	.00	.00	.14	.00	.00	.00	.64
19-24	0	1	1	0	0	0	0	0	0	1	5	2	2	2	0	0	0	14
(1)	.00	1.45	1.45	.00	.00	.00	.00	.00	.00	1.45	7.25	2.90	2.90	2.90	.00	.00	.00	20.29
(2)	.00	.05	.05	.00	.00	.00	.00	.00	.00	.05	.25	.09	.09	.09	.00	.00	.00	.64
GT 24	0	0	0	0	0	0	0	0	0	0	1	0	0	7	0	1	0	9
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.45	.00	.00	10.14	.00	1.45	.00	13.04
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.00	.00	.32	.00	.05	.00	.41
ALL SPEEDS	1	5	1	1	1	1	1	3	1	7	14	8	4	13	1	7	0	69
(1)	1.45	7.25	1.45	1.45	1.45	1.45	1.45	4.35	1.45	10.14	20.29	11.59	5.80	18.84	1.45	10.14	.00	100.00
(2)	.05	.23	.05	.05	.05	.05	.05	.14	.05	.32	.64	.36	.18	.59	.05	.32	.00	3.13

(1)=PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PAGE
(2)=PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PERIOD
C= CALM (WIND SPEED LESS THAN OR EQUAL TO .95 MPH)

TABLE 4A-2 (continued)

PILGRIM OCT94-DEC94 MET DATA JOINT FREQUENCY DISTRIBUTION (220-FOOT TOWER)

220.0 FT WIND DATA STABILITY CLASS C CLASS FREQUENCY (PERCENT) = 4.49

WIND DIRECTION FROM

SPEED(MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	VRBL	TOTAL
CALM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
C-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
4-7	2	1	0	0	1	0	0	0	1	0	2	0	1	1	1	0	0	10
(1)	2.02	1.01	.00	.00	1.01	.00	.00	.00	1.01	.00	2.02	.00	1.01	1.01	1.01	.00	.00	10.10
(2)	.09	.05	.00	.00	.05	.00	.00	.00	.05	.00	.09	.00	.05	.05	.05	.00	.00	.45
8-12	1	2	0	1	0	1	2	0	2	4	4	2	1	3	1	0	0	24
(1)	1.01	2.02	.00	1.01	.00	1.01	2.02	.00	2.02	4.04	4.04	2.02	1.01	3.03	1.01	.00	.00	24.24
(2)	.05	.09	.00	.05	.00	.05	.09	.00	.09	.18	.18	.09	.05	.14	.05	.00	.00	1.09
13-18	2	1	0	1	0	1	1	0	2	3	5	3	1	4	3	0	0	27
(1)	2.02	1.01	.00	1.01	.00	1.01	1.01	.00	2.02	3.03	5.05	3.03	1.01	4.04	3.03	.00	.00	27.27
(2)	.09	.05	.00	.05	.00	.05	.05	.00	.09	.14	.23	.14	.05	.18	.14	.00	.00	1.23
19-24	0	7	4	1	0	0	0	0	0	1	1	4	1	2	0	1	0	22
(1)	.00	7.07	4.04	1.01	.00	.00	.00	.00	.00	1.01	1.01	4.04	1.01	2.02	.00	1.01	.00	22.22
(2)	.00	.32	.18	.05	.00	.00	.00	.00	.00	.05	.05	.18	.05	.09	.00	.05	.00	1.00
GT 24	1	2	0	0	0	0	0	0	0	0	0	1	2	5	2	3	0	16
(1)	1.01	2.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.01	2.02	5.05	2.02	3.03	.00	16.16
(2)	.05	.09	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.09	.23	.09	.14	.00	.73
ALL SPEEDS	6	13	4	3	1	2	3	0	5	8	12	10	6	15	7	4	0	99
(1)	6.06	13.13	4.04	3.03	1.01	2.02	3.03	.00	5.05	8.08	12.12	10.10	6.06	15.15	7.07	4.04	.00	100.00
(2)	.27	.59	.18	.14	.05	.09	.14	.00	.23	.36	.54	.45	.27	.68	.32	.18	.00	4.49

(1)=PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PAGE
(2)=PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PERIOD
C= CALM (WIND SPEED LESS THAN OR EQUAL TO .95 MPH)

TABLE 4A-2 (continued)

PILGRIM OCT94-DEC94 MET DATA JOINT FREQUENCY DISTRIBUTION (220-FOOT TOWER)

220.0 FT WIND DATA STABILITY CLASS D CLASS FREQUENCY (PERCENT) = 38.40

WIND DIRECTION FROM

SPEED(MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	VRBL	TOTAL
CALM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
C-3	2	2	1	0	0	0	0	0	0	0	0	0	0	2	0	0	0	7
(1)	.24	.24	.12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.24	.00	.00	.00	.83
(2)	.09	.09	.05	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.09	.00	.00	.00	.32
4-7	0	3	5	2	2	3	1	2	2	0	1	3	3	4	5	2	0	38
(1)	.00	.35	.59	.24	.24	.35	.12	.24	.24	.00	.12	.35	.35	.47	.59	.24	.00	4.49
(2)	.00	.14	.23	.09	.09	.14	.05	.09	.09	.00	.05	.14	.14	.18	.23	.09	.00	1.72
8-12	2	4	3	8	6	7	13	5	7	14	10	6	8	6	7	5	0	111
(1)	.24	.47	.35	.95	.71	.83	1.54	.59	.83	1.65	1.18	.71	.95	.71	.83	.59	.00	13.12
(2)	.09	.18	.14	.36	.27	.32	.59	.23	.32	.64	.45	.27	.36	.27	.32	.23	.00	5.04
13-18	6	16	10	19	2	8	17	15	12	31	30	14	19	17	7	1	0	224
(1)	.71	1.89	1.18	2.25	.24	.95	2.01	1.77	1.42	3.66	3.55	1.65	2.25	2.01	.83	.12	.00	26.48
(2)	.27	.73	.45	.86	.09	.36	.77	.68	.54	1.41	1.36	.64	.86	.77	.32	.05	.00	10.17
19-24	4	21	8	17	5	5	6	6	4	28	26	11	24	29	26	10	0	230
(1)	.47	2.48	.95	2.01	.59	.59	.71	.71	.47	3.31	3.07	1.30	2.84	3.43	3.07	1.18	.00	27.19
(2)	.18	.95	.36	.77	.23	.23	.27	.27	.18	1.27	1.18	.50	1.09	1.32	1.18	.45	.00	10.44
GT 24	16	24	16	2	6	10	2	3	2	6	4	1	37	48	39	20	0	236
(1)	1.89	2.84	1.89	.24	.71	1.18	.24	.35	.24	.71	.47	.12	4.37	5.67	4.61	2.36	.00	27.90
(2)	.73	1.09	.73	.09	.27	.45	.09	.14	.09	.27	.18	.05	1.68	2.18	1.77	.91	.00	10.71
ALL SPEEDS	30	70	43	48	21	33	39	31	27	79	71	35	91	106	84	38	0	846
(1)	3.55	8.27	5.08	5.67	2.48	3.90	4.61	3.66	3.19	9.34	8.39	4.14	10.76	12.53	9.93	4.49	.00	100.00
(2)	1.36	3.18	1.95	2.18	.95	1.50	1.77	1.41	1.23	3.59	3.22	1.59	4.13	4.81	3.81	1.72	.00	38.40

(1)=PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PAGE
(2)=PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PERIOD
C= CALM (WIND SPEED LESS THAN OR EQUAL TO .95 MPH)

TABLE 4A-2 (continued)

PILGRIM OCT94-DEC94 MET DATA JOINT FREQUENCY DISTRIBUTION (220-FOOT TOWER)

220.0 FT WIND DATA STABILITY CLASS E CLASS FREQUENCY (PERCENT) = 33.32

WIND DIRECTION FROM

SPEED(MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	VRBL	TOTAL
CALM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
C-3	0	1	0	3	0	0	0	0	0	3	0	1	0	0	0	0	0	8
(1)	.00	.14	.00	.41	.00	.00	.00	.00	.00	.41	.00	.14	.00	.00	.00	.00	.00	1.09
(2)	.00	.05	.00	.14	.00	.00	.00	.00	.00	.14	.00	.05	.00	.00	.00	.00	.00	.36
4-7	3	4	1	0	3	2	2	4	3	0	1	1	3	1	2	2	0	32
(1)	.41	.54	.14	.00	.41	.27	.27	.54	.41	.00	.14	.14	.41	.14	.27	.27	.00	4.36
(2)	.14	.18	.05	.00	.14	.09	.09	.18	.14	.00	.05	.05	.14	.05	.09	.09	.00	1.45
8-12	7	7	5	4	1	4	10	6	9	1	6	4	8	34	18	4	0	128
(1)	.95	.95	.68	.54	.14	.54	1.36	.82	1.23	.14	.82	.54	1.09	4.63	2.45	.54	.00	17.44
(2)	.32	.32	.23	.18	.05	.18	.45	.27	.41	.05	.27	.18	.36	1.54	.82	.18	.00	5.81
13-18	3	4	0	2	7	3	7	18	10	48	35	29	39	40	16	2	0	263
(1)	.41	.54	.00	.27	.95	.41	.95	2.45	1.36	6.54	4.77	3.95	5.31	5.45	2.18	.27	.00	35.83
(2)	.14	.18	.00	.09	.32	.14	.32	.82	.45	2.18	1.59	1.32	1.77	1.82	.73	.09	.00	11.94
19-24	2	3	1	1	5	0	0	0	2	54	58	19	40	22	21	9	0	237
(1)	.27	.41	.14	.14	.68	.00	.00	.00	.27	7.36	7.90	2.59	5.45	3.00	2.86	1.23	.00	32.29
(2)	.09	.14	.05	.05	.23	.00	.00	.00	.09	2.45	2.63	.86	1.82	1.00	.95	.41	.00	10.76
GT 24	6	7	1	0	0	0	0	1	0	7	5	2	9	9	6	13	0	66
(1)	.82	.95	.14	.00	.00	.00	.00	.14	.00	.95	.68	.27	1.23	1.23	.82	1.77	.00	8.99
(2)	.27	.32	.05	.00	.00	.00	.00	.05	.00	.32	.23	.09	.41	.41	.27	.59	.00	3.00
ALL SPEEDS	21	26	8	10	16	9	19	29	24	113	105	56	99	106	63	30	0	734
(1)	2.86	3.54	1.09	1.36	2.18	1.23	2.59	3.95	3.27	15.40	14.31	7.63	13.49	14.44	8.58	4.09	.00	100.00
(2)	.95	1.18	.36	.45	.73	.41	.86	1.32	1.09	5.13	4.77	2.54	4.49	4.81	2.86	1.36	.00	33.32

(1)=PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PAGE
(2)=PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PERIOD
C= CALM (WIND SPEED LESS THAN OR EQUAL TO .95 MPH)

TABLE 4A-2 (continued)

PILGRIM OCT94-DEC94 MET DATA JOINT FREQUENCY DISTRIBUTION (220-FOOT TOWER)

220.0 FT WIND DATA STABILITY CLASS F CLASS FREQUENCY (PERCENT) = 10.30

WIND DIRECTION FROM

SPEED(MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	VRBL	TOTAL
CALM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
C-3	0	1	0	1	0	1	0	0	0	0	0	1	0	0	1	1	0	6
(1)	.00	.44	.00	.44	.00	.44	.00	.00	.00	.00	.00	.44	.00	.00	.44	.44	.00	2.64
(2)	.00	.05	.00	.05	.00	.05	.00	.00	.00	.00	.00	.05	.00	.00	.05	.05	.00	.27
4-7	1	5	3	0	1	3	0	3	2	1	4	2	3	2	8	5	0	43
(1)	.44	2.20	1.32	.00	.44	1.32	.00	1.32	.88	.44	1.76	.88	1.32	.88	3.52	2.20	.00	18.94
(2)	.05	.23	.14	.00	.05	.14	.00	.14	.09	.05	.18	.09	.14	.09	.36	.23	.00	1.95
8-12	2	2	0	0	0	0	5	3	3	3	6	1	10	16	14	2	0	67
(1)	.88	.88	.00	.00	.00	.00	2.20	1.32	1.32	1.32	2.64	.44	4.41	7.05	6.17	.88	.00	29.52
(2)	.09	.09	.00	.00	.00	.00	.23	.14	.14	.14	.27	.05	.45	.73	.64	.09	.00	3.04
13-18	2	0	0	0	0	0	1	0	1	2	21	17	14	2	0	2	0	62
(1)	.88	.00	.00	.00	.00	.00	.44	.00	.44	.88	9.25	7.49	6.17	.88	.00	.88	.00	27.31
(2)	.09	.00	.00	.00	.00	.00	.05	.00	.05	.09	.95	.77	.64	.09	.00	.09	.00	2.81
19-24	1	0	0	0	0	0	0	0	0	2	31	6	0	0	0	0	0	40
(1)	.44	.00	.00	.00	.00	.00	.00	.00	.00	.88	13.66	2.64	.00	.00	.00	.00	.00	17.62
(2)	.05	.00	.00	.00	.00	.00	.00	.00	.00	.09	1.41	.27	.00	.00	.00	.00	.00	1.82
GT 24	0	0	0	0	0	0	0	0	0	1	7	1	0	0	0	0	0	9
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.44	3.08	.44	.00	.00	.00	.00	.00	3.96
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.32	.05	.00	.00	.00	.00	.00	.41
ALL SPEEDS	6	8	3	1	1	4	6	6	6	9	69	28	27	20	23	10	0	227
(1)	2.64	3.52	1.32	.44	.44	1.76	2.64	2.64	2.64	3.96	30.40	12.33	11.89	8.81	10.13	4.41	.00	100.00
(2)	.27	.36	.14	.05	.05	.18	.27	.27	.27	.41	3.13	1.27	1.23	.91	1.04	.45	.00	10.30

(1)=PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PAGE
(2)=PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PERIOD
C= CALM (WIND SPEED LESS THAN OR EQUAL TO .95 MPH)

TABLE 4A-2 (continued)

PILGRIM OCT94-DEC94 MET DATA JOINT FREQUENCY DISTRIBUTION (220-FOOT TOWER)

220.0 FT WIND DATA STABILITY CLASS G CLASS FREQUENCY (PERCENT) = 2.32

WIND DIRECTION FROM

SPEED(MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	VRBL	TOTAL
CALM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
C-3	2	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	3
(1)	3.92	.00	.00	.00	.00	.00	.00	.00	.00	1.96	.00	.00	.00	.00	.00	.00	.00	5.88
(2)	.09	.00	.00	.00	.00	.00	.00	.00	.00	.05	.00	.00	.00	.00	.00	.00	.00	.14
4-7	1	0	0	0	0	0	0	0	3	0	0	0	4	2	1	1	0	12
(1)	1.96	.00	.00	.00	.00	.00	.00	.00	5.88	.00	.00	.00	7.84	3.92	1.96	1.96	.00	23.53
(2)	.05	.00	.00	.00	.00	.00	.00	.00	.14	.00	.00	.00	.18	.09	.05	.05	.00	.54
8-12	0	0	0	0	0	0	0	0	0	0	2	1	8	3	0	2	0	16
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	3.92	1.96	15.69	5.88	.00	3.92	.00	31.37
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.09	.05	.36	.14	.00	.09	.00	.73
13-18	0	0	0	0	0	0	0	0	0	1	2	1	2	2	0	0	0	8
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.96	3.92	1.96	3.92	3.92	.00	.00	.00	15.69
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.09	.05	.09	.09	.00	.00	.00	.36
19-24	0	0	0	0	0	0	0	0	0	3	1	3	0	0	0	0	0	7
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	5.88	1.96	5.88	.00	.00	.00	.00	.00	13.73
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.14	.05	.14	.00	.00	.00	.00	.00	.32
GT 24	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	5
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	9.80	.00	.00	.00	.00	.00	9.80
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.23	.00	.00	.00	.00	.00	.23
ALL SPEEDS	3	0	0	0	0	0	0	0	3	5	5	10	14	7	1	3	0	51
(1)	5.88	.00	.00	.00	.00	.00	.00	.00	5.88	9.80	9.80	19.61	27.45	13.73	1.96	5.88	.00	100.00
(2)	.14	.00	.00	.00	.00	.00	.00	.00	.14	.23	.23	.45	.64	.32	.05	.14	.00	2.32

(1)=PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PAGE
(2)=PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PERIOD
C= CALM (WIND SPEED LESS THAN OR EQUAL TO .95 MPH)

TABLE 4A-2 (continued)

PILGRIM OCT94-DEC94 MET DATA JOINT FREQUENCY DISTRIBUTION (220-FOOT TOWER)

220.0 FT WIND DATA STABILITY CLASS ALL CLASS FREQUENCY (PERCENT) = 100.00

WIND DIRECTION FROM

SPEED(MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	VRBL	TOTAL
CALM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
C-3	5	4	1	4	0	1	0	0	0	4	0	2	0	2	1	1	0	25
(1)	.23	.18	.05	.18	.00	.05	.00	.00	.00	.18	.00	.09	.00	.09	.05	.05	.00	1.13
(2)	.23	.18	.05	.18	.00	.05	.00	.00	.00	.18	.00	.09	.00	.09	.05	.05	.00	1.13
4-7	10	22	11	3	7	8	3	9	11	1	8	8	14	11	20	11	0	157
(1)	.45	1.00	.50	.14	.32	.36	.14	.41	.50	.05	.36	.36	.64	.50	.91	.50	.00	7.13
(2)	.45	1.00	.50	.14	.32	.36	.14	.41	.50	.05	.36	.36	.64	.50	.91	.50	.00	7.13
8-12	20	22	8	13	7	13	30	16	22	23	33	21	42	70	44	24	0	408
(1)	.91	1.00	.36	.59	.32	.59	1.36	.73	1.00	1.04	1.50	.95	1.91	3.18	2.00	1.09	.00	18.52
(2)	.91	1.00	.36	.59	.32	.59	1.36	.73	1.00	1.04	1.50	.95	1.91	3.18	2.00	1.09	.00	18.52
13-18	22	25	10	22	11	12	27	35	26	98	98	64	77	82	36	15	0	660
(1)	1.00	1.13	.45	1.00	.50	.54	1.23	1.59	1.18	4.45	4.45	2.91	3.50	3.72	1.63	.68	.00	29.96
(2)	1.00	1.13	.45	1.00	.50	.54	1.23	1.59	1.18	4.45	4.45	2.91	3.50	3.72	1.63	.68	.00	29.96
19-24	12	32	15	19	10	5	6	6	6	90	123	45	70	64	51	28	0	582
(1)	.54	1.45	.68	.86	.45	.23	.27	.27	.27	4.09	5.58	2.04	3.18	2.91	2.32	1.27	.00	26.42
(2)	.54	1.45	.68	.86	.45	.23	.27	.27	.27	4.09	5.58	2.04	3.18	2.91	2.32	1.27	.00	26.42
GT 24	27	33	18	2	6	10	2	4	2	14	17	10	48	81	59	38	0	371
(1)	1.23	1.50	.82	.09	.27	.45	.09	.18	.09	.64	.77	.45	2.18	3.68	2.68	1.72	.00	16.84
(2)	1.23	1.50	.82	.09	.27	.45	.09	.18	.09	.64	.77	.45	2.18	3.68	2.68	1.72	.00	16.84
ALL SPEEDS	96	138	63	63	41	49	68	70	67	230	279	150	251	310	211	117	0	2203
(1)	4.36	6.26	2.86	2.86	1.86	2.22	3.09	3.18	3.04	10.44	12.66	6.81	11.39	14.07	9.58	5.31	.00	100.00
(2)	4.36	6.26	2.86	2.86	1.86	2.22	3.09	3.18	3.04	10.44	12.66	6.81	11.39	14.07	9.58	5.31	.00	100.00

(1)=PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PAGE
(2)=PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PERIOD
C= CALM (WIND SPEED LESS THAN OR EQUAL TO .95 MPH)

5. OFF-SITE DOSE CALCULATION MANUAL REVISIONS

The PNPS Off-site Dose Calculation Manual (ODCM) was revised once during the reporting period. Details regarding this revision can be found in Appendix B of this report.

6. REFERENCES

1. U. S. Nuclear Regulatory Commission, "Measuring, Evaluating, and Reporting Radioactivity in Solid Wastes and Releases of Radioactive Materials in Liquid and Gaseous Effluents from Light-Water-Cooled Nuclear Power Plants", Regulatory Guide 1.21, Revision 1, June 1974.

2. T. Messier memorandum to K. J. Sejkora, "PNPS Meteorological Data Joint Frequency Distribution Tables July - December 1994", dated February 13, 1995.

KJS/gml

APPENDIX A

Revisions to 1993 Liquid Effluent Summary Tables

PILGRIM NUCLEAR POWER STATION
EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT

SUPPLEMENTAL INFORMATION 1993
January - June 1993

Facility Pilgrim Nuclear Power Station Licensee DPR-35

1. Regulatory Limits

a.	Fission and activation gases:	500 mrem/yr total body and 3000 mrem/yr for skin at site boundary.
b,c.	Iodines, particulates with half-lives>8 days, tritium:	1500 mrem/yr to any organ at site boundary.
d.	Liquid effluents:	0.06 mrem/month for total body and 0.20 mrem/month for any organ (without radwaste treatment).

2. Maximum Permissible Concentration

a.	Fission and activation gases:	10 CFR 20 Appendix B Table II
b.	Iodines:	10 CFR 20 Appendix B Table II
c.	Particulates, half-lives>8 days:	10 CFR 20 Appendix B Table II
d.	Liquid effluents:	2E-4 μCi/ml for entrained noble gases; 10CFR20 Appendix B Table II values for all other radionuclides.

3. Average Energy: Not applicable

4. Measurements and Approximations of Total Radioactivity

a.	Fission and activation gases:	High-purity Ge gamma spectroscopy for all gamma emitters; radiochemistry analysis for H-3, Fe-55 (liquids only), Sr-89, and Sr-90.
b.	Iodines:	
c.	Particulates:	
d.	Liquid effluents:	

5. Batch Releases

a. Liquid:

	Quarter 1st	Quarter 2nd
1. Number of batch releases:	19	68
2. Total time period for batch releases (minutes):	5.05E+2	3.53E+3
3. Maximum time period for a batch release (minutes):	4.00E+1	2.23E+2
4. Average time period for batch releases (minutes):	2.66E+1	5.20E+1
5. Minimum time period for a batch release (minutes):	2.00E+1	2.00E+1
6. Average stream flow during periods of release of effluents into a flowing stream (liters/min):	1.17E+6	5.30E+5

b. Gaseous: Not applicable

6. Abnormal Releases

a. Liquid: None
b. Gaseous: None

TABLE 2A
EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT 1993
LIQUID EFFLUENTS-SUMMATION OF ALL RELEASES
January - June 1993

	Unit	Quarter 1st	Quarter 2nd	Est.Total Error,%
A. Fission and Activation Products				
1. Total release (not including tritium, noble gases, or alpha)	Ci	3.46E-03	1.64E-02	12%
2. Average diluted concentration during period	uCi/ml	5.85E-09	8.77E-09	
3. Percent of applicable MPC limit*	%	9.10E-02	4.73E-02	
B. Tritium				
1. Total release	Ci	1.18E-02	2.66E+00	9.4%
2. Average diluted concentration during period	uCi/ml	1.99E-08	1.42E-06	
3. Percent of applicable MPC limit*	%	6.64E-04	4.74E-02	
C. Dissolved and Entrained Gases				
1. Total release	Ci	NDA	2.04E-04	16%
2. Average release rate for period during period	uCi/ml	NDA	1.10E-10	
3. Percent of applicable MPC limit*	%	0.00E+0	5.47E-05	
D. Gross Alpha Radioactivity				
1. Total release	Ci	NDA	NDA	34%
E. Volume of Waste Released (prior to dilution)	liters	3.25E+04	1.30E+06	5.7%
F. Volume of Dilution Water Used During Period	liters	5.92E+08	1.87E+09	10%

Notes for Table 2A:

* Additional percent of Technical Specification Limit Values based on resulting dose will be provided in the annual supplemental dose assessment report to be issued prior to April 1, 1994.

1. NDA is no detectable activity.
2. LLD for gross alpha listed as NDA is 1E-7 μCi/ml.
3. LLD for dissolved and entrained gases listed as NDA is 1E-5 μCi/ml.

PILGRIM NUCLEAR POWER STATION
EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT

SUPPLEMENTAL INFORMATION 1993
July - December 1993

Facility Pilgrim Nuclear Power Station Licensee DPR-35

1. Regulatory Limits

a.	Fission and activation gases:	500 mrem/yr total body and 3000 mrem/yr for skin at site boundary.
b,c.	Iodines, particulates with half-lives>8 days, tritium:	1500 mrem/yr to any organ at site boundary.
d.	Liquid effluents:	0.06 mrem/month for total body and 0.20 mrem/month for any organ (without radwaste treatment).

2. Maximum Permissible Concentration

a.	Fission and activation gases:	10 CFR 20 Appendix B Table II
b.	Iodines:	10 CFR 20 Appendix B Table II
c.	Particulates, half-lives>8 days:	10 CFR 20 Appendix B Table II
d.	Liquid effluents:	2E-4 μCi/ml for entrained noble gases; 10CFR20 Appendix B Table II values for all other radionuclides.

3. Average Energy: Not applicable

4. Measurements and Approximations of Total Radioactivity

a.	Fission and activation gases:	High-purity Ge gamma spectroscopy for all gamma emitters; radiochemistry analysis for H-3, Fe-55 (liquids only), Sr-89, and Sr-90.
b.	Iodines:	
c.	Particulates:	
d.	Liquid effluents:	

5. Batch Releases

a. Liquid:

	Quarter 3rd	Quarter 4th
1. Number of batch releases:	56	15
2. Total time period for batch releases (minutes):	3.54E+3	1.27E+3
3. Maximum time period for a batch release (minutes):	3.51E+2	2.65E+2
4. Average time period for batch releases (minutes):	6.32E+1	8.47E+1
5. Minimum time period for a batch release (minutes):	2.00E+1	2.00E+1
6. Average stream flow during periods of release of effluents into a flowing stream (liters/min):	8.54E+5	7.52E+5

b. Gaseous: Not applicable

6. Abnormal Releases

a. Liquid: None
b. Gaseous: None

TABLE 2A
EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT 1993
LIQUID EFFLUENTS-SUMMATION OF ALL RELEASES
July - December 1993

	Unit	Quarter 3rd	Quarter 4th	Est.Total Error,%
A. Fission and Activation Products				
1. Total release (not including tritium, noble gases, or alpha)	Ci	2.30E-03	6.28E-04	12%
2. Average diluted concentration during period	uCi/ml	7.61E-10	6.58E-10	
3. Percent of applicable MPC limit*	%	5.03E-03	4.29E-03	
B. Tritium				
1. Total release	Ci	9.62E-01	1.14E-01	9.4%
2. Average diluted concentration during period	uCi/ml	3.19E-07	1.19E-07	
3. Percent of applicable MPC limit*	%	1.06E-02	3.98E-03	
C. Dissolved and Entrained Gases				
1. Total release	Ci	NDA	NDA	16%
2. Average release rate for period during period	uCi/ml	NDA	NDA	
3. Percent of applicable MPC limit*	%	0.00E+0	0.00E+0	
D. Gross Alpha Radioactivity				
1. Total release	Ci	NDA	NDA	34%
E. Volume of Waste Released (prior to dilution)	liters	6.46E+05	2.01E+05	5.7%
F. Volume of Dilution Water Used During Period	liters	3.02E+09	9.55E+08	10%

Notes for Table 2A:

* Additional percent of Technical Specification Limit Values based on resulting dose will be provided in the annual supplemental dose assessment report to be issued prior to April 1, 1994.

1. NDA is no detectable activity.
2. LLD for gross alpha listed as NDA is 1E-7 μCi/ml.
3. LLD for dissolved and entrained gases listed as NDA is 1E-5 μCi/ml.

APPENDIX B

August 1994 ODCM Revision Affected Pages

PNPS-ODCM
Rev. 6

H8.58

PILGRIM NUCLEAR POWER STATION

OFFSITE DOSE CALCULATION MANUAL

APPROVED BY: _____ 8/4/94
CHEMISTRY DIVISION MANAGER — date

APPROVED BY: Laurie Witherell 8-5-94
RADIOLOGICAL SECTION MANAGER — date

REVIEWED BY: Charles J Matta, 8-11-94
ORC CHAIRMAN — date

Rev. 0 was originally reviewed by ORC
on June 10, 1983

ORC REVIEW REQUIRED

Changes to this document shall be reviewed by the Operations Review Committee and submitted to the Nuclear Regulatory Commission in the next Semiannual Effluent Release Report. All such changes shall be recorded below.

RECORD OF DOCUMENT CHANGES

REV. NO.	IDENTIFICATION OF CHANGE	DATE APPROVED	DOCUMENT SECTION AND PAGE
0	Original Submittal	6/10/83	All Sections
1	Update of TLD and Air Sampler Locations	6/01/87	7.0/7-7 & 7-8
2	Changes in response to NRC questions on PNPS ODCM (TAC #63012). Changes in response to technical review performed by BECo Radiological Section.	7/15/88	All Sections
3.	Changes in response to NRC comments on PNPS ODCM Rev. 2 (TAC #69867). Correct typographical error in Table A-3. Incorporate new TLD locations. Change responsible division.	7/12/89	Preliminary pages, 3.3, 4.2, 6.1, 7.0 (7-3 & 7-5), 8.1, A-3
4.	Update signature page to reflect new responsible organization. Update record of document changes. Renumber pages iii through vii to include list of effective page revisions. Revise pages containing equations and definitions to include machine-generated scientific characters. Address gardens identified during 1990 garden census in Table 7-5 in accordance with Technical Specification 7.1.B.2. Expand definition of Lower Limit of detection in Appendix B.	9/27/91	Page i through vii; pages 13-15, 17-23 25-28, 30-32, 49, and A-4; Appendix B.
5.	Add Steam Jet Air Ejector Monitor to section addressing monitor setpoints.	10/30/91	Pages i, ii, iii, v, 34a

RECORD OF DOCUMENT CHANGES (continued)

REV. NO.	IDENTIFICATION OF CHANGE	DATE APPROVED	DOCUMENT SECTION AND PAGE
6	Update revision log; renumber pages ii through viii; clarify definition of dilution flow used for liquid effluent discharges; clarify assumptions used in gaseous effluent dose calculations and SJAE monitor setpoints.		Pages i through viii; 14, 17, 33, 34a, A-35

LIST OF EFFECTIVE PAGE REVISIONS

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ii	6	18	4	41	3	A-3	3	A-27	3		
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CW = Flow rate of dilution water (sum of cirulcating water pumps and/or salt service water pumps), (gal/min).

C_{wi} = Concentration of nuclide i in the liquid waste discharge volume prior to any dilution as determined by current isotopic analysis for gamma emmitting nuclides and most recent results from pure beta and alpha emitters, (μCi/ml).

MPC_i = Maximum Permissible Concentration of each nuclide i from 10CFR20 Appendix B, Table II, Column 2, (μCi/ml).

4.2 Liquid Effluents Dose Assessment Methodology

The following equations shall be used to estimate the annual dose rates due to release of radioactive liquid effluents. All input parameters (i.e. activity and volume) must be normalized to a 1 year release period. Modification of final results is necessary for comparison to dose rate limits for periods different than one year. For comparison to monthly limits and quarterly limits, results would be scaled by 1/12 and 1/4, respectively. To determine the dose or dose commitment for a desired period, multiply the annual dose rate by the fraction of the year for the dose period desired. For purposes of projecting resulting dose estimates for the subsequent month, the release rates and concentrations are assumed to be equal to the previous month's release.

Pathways assuming internal deposition of radionuclides (i.e., ingestion) involve the use of a 50-year committed dose conversion factor. This entire prospective dose will be assigned to the individual for the year of intake (Reference 1). For pathways involving external radiation to the total body (i.e., shoreline activity, swimming, boating), the dose to all other organs is assumed equal to that for the total body (Reference 1, Appendix E).

Summation of the dose rates from the equations below should be performed for all significant pathways.

4.2.1 Liquid Pathways Annual Dose Rates

4.2.1.1 Aquatic Food Ingestion (Fish, Shellfish)

$$DA_{ajp} = UA_{ap} \sum_i CA_{ip} DFI_{aij}$$

where:

$$CA_{ip} = CW_{il} B_{ip} e^{-\lambda_i t_h}$$

$$CW_{il} = 1.00E12 Q_i (M_l/V) e^{-\lambda_i t_l}$$

Above equations derived from Reference 1 equations 2 and A-3.

US_{al} is the use factor (amount of time) an individual in age group a, engages in shoreline activities at location l, from Table E-5 for maximum individual, Table E-4 for average individual, (hr/yr);

UW_{al} is the use factor (amount of time) an individual in age group a, engages in swimming at location l, from Table E-5 for maximum individual, Table E-4 for average individual, (hr/yr);

UY_{al} is the use factor (amount of time) an individual in age group a, engages in yachting/boating at location l, from Table E-5 for maximum individual, Table E-4 for average individual, (hr/yr);

V is the total annual discharge rate of liquids, represented by the sum of liquid effluents, circulating water pumps, and/or salt service water pumps, (liters/yr);

W_l is the shoreline width factor for location l, from Table A-3, (dimensionless);

λ_i is the radioactive decay constant of radionuclide i, (hr^{-1});

0.50 is a scaling factor for yachting/boating assuming that doses received while on the surface of the water are 1/2 of doses received while immersed in water from Reference 14, (dimensionless);

2.89 is the factor to convert for transfer of nuclides from water to sediment, equal to 100 liters/m^2-day from Reference 16 multiplied by 1 day/24 hr and by ln 2 (to convert reciprocal $_i$ to halflife), as calcuated in Reference 1 equation A-5, (liter/m^2-hr);

1.00E12 is the factor to convert from Ci to pCi, (pCi/Ci);

4.3 Gaseous Effluents Dose Assessment Methodology

The following equations shall be used to estimate the annual dose rates due to release of radioactive gaseous effluents. All input parameters (ie, activity and volume) must be normalized to a 1 year release period. Modification of final results is necessary for comparison to dose rate limits for periods different than one year. For comparison to monthly limits and quarterly limits, results would be scaled by 1/12 and 1/4, respectively. To determine the dose or dose commitment for a desired period multiply the annual dose rate by the fraction of the year for the dose period desired.

For conservatism, the shielding factor (S) used for calculating total body dose and skin dose from noble gases is normally assumed to be unity (1.0), as specified in NUREG-0133 (Reference 11). Also, although iodine deposition on vegetation is assumed to be 50% (Reference 1), 100% of airborne iodine is assumed to be deposited on the ground surface when calculating direct radiation (ground plane) exposure.

MPCi = Maximum Permissible Concentration of each nuclide i from 10 CFR 20 Appendix B, Table II, Column 2, (μCi/ml);

f = the flow setpoint as measured at the radiation monitor location, (gpm);

F = the dilution water flow (sum of circulating water pumps and/or salt service water pumps) setpoint as measured prior to the release point, (gpm);

b) Monitor setpoint based on monitor count rate

$c_s = (c * x) + z$

Where:

c_s = the setpoint of the radioactivity monitor measuring the radionuclide concentration in the effluent line prior to dilution, (counts/sec);

c = the liquid effluent monitor setpoint based on activity concentration as calculated in step 4.a above, (μCi/ml);

x = the liquid effluent monitor efficiency/conversion factor for activity concentration to count rate, (counts-ml/μCi-sec);

z = the liquid effluent monitor background count rate, (counts/sec).

The setpoint will ensure that the concentration of liquid effluents discharged does not increase above the value for which the maximum permissible discharge flow rate was established (see Section 4.1 of this manual).

6.2 Gaseous Effluent Monitors

The only components of the station's gaseous effluent and discharge which is continuously monitored are the noble gases. The method of determining the Main Stack Gas Monitor (see Section 3.2.1) and Reactor Building Exhaust Vent monitor (see Section 3.2.2) Hi and Hi-Hi alarms is as follows:

1) At the time a gas grab sample is taken at the discharge point, the gross monitor reading is recorded (in counts/sec).

2) The results of the isotopic analyses on this sample in terms of μCi/cc of each isotope detected are used along with estimates of gaseous discharge flow rate (SCFM) to determine the current release rate of each detected isotope in μCi/sec.

3) These calculated release rates (μCi/sec) are used along with the equations given in Section 4.3.1.3 and 4.3.1.4 of this manual to calculate the maximum offsite dose rate due to noble gases.

6.3 Steam Jet Air Ejector Monitor

The steam jet air ejector (SJAE) monitor is used to measure the release rate of noble gases in main condenser offgas prior to its further treatment and release from the main stack. This monitor's primary function is to provide alarm and isolation of this process flow stream in the event of excessively high release rates of noble gases from the condenser and recombiner. The maximum allowable release rate of noble gases in the SJAE offgas is 500,000 μCi/sec, as established in Technical Specification 3.8.G. For conservatism, the Hi-Hi alarm was set at 75% of this limit, or 375,000 μCi/sec. In association with changing to a 24-month refueling cycle, the frequency of equipment calibrations has also been extended from the typical 18-month cycle. In order to accommodate for any drift which may occur in SJAE monitor response during the additional 6-months in the calibration interval, the Hi-Hi alarm has been further derated to a release rate of 300,000 μCi/sec.

Since this gaseous stream undergoes further processing downstream of the SJAE monitor and is ultimately released via the main stack and monitored by the main stack gaseous effluent monitor, the SJAE monitor does not strictly qualify as a primary effluent monitor. Therefore, it is not normally recognized as such. However, the methodology for establishment of alarm setpoints is included in this section for completeness. These setpoints are established as follows:

1) A grab sample of the SJAE offgas is collected. The SJAE monitor reading (mR/hr) is recorded in conjunction with this sample.

2) Isotopic analyses are performed on the offgas sample and the total noble gas concentration (μCi/cc) is coupled with the flow rate (CFM) to calculate the SJAE release rate (μCi/sec).

3) The release rate (μCi/sec) is divided by the monitor reading (mR/hr) to determine the SJAE monitor conversion factor (μCi/sec/mR/hr).

4) The Hi-Hi alarm setpoint (mR/hr) is determined by dividing the maximum tolerable release rate of 300,000 μCi/sec by the SJAE monitor conversion factor (μCi/sec/mR/hr).

5) The Hi alarm setpoint is set at 50% of the corresponding Hi-Hi alarm setpoint.

Grab samples of the SJAE offgas are collected: 1) at least once every 31 days; or, 2) if the gross radioactivity release rate increases by 50% or more over the previous day (after factoring out changes in reactor thermal power level). Upon collection of these grab samples, new values are established for the total noble gas concentration, SJAE monitor conversion factor, and alarm setpoints. Typically, existing setpoints will be used unless the newly calculated setpoints yield lower values. In this case, the setpoints will be lowered to the newer, more conservative values.

TABLE E-15

RECOMMENDED VALUES FOR GASEOUS EFFLUENTS*

Parameter		Values
S	is the attenuation factor that accounts for the shielding provided by residential structures	0.7 (maximum individual) 0.5 (average indiv.) 1.0 (noble gas-gamma instantaneous dose)**
t_e	is the time period that crops are exposured to contamination during growing season	
	i) for forage ingested by animals	720 hrs (30 days, for for pasture grass) 1440 hr (60 days for stored feed)***
	ii) for crops ingested by man	1440 hrs (60 days)
t_f	is the average transport time of activity from the feed into the milk and to the receptor	48 hr (2 days, maximum individual 96 hr (4 days, average individual)
t_h	Time delay between harvest of vegetation or crops and ingestion	
	i) for forage ingested by animals	Zero (for pasture grass) 2160 hr (90 days for stored feed)
	ii) for crops ingested by man	24 hr (1 day, for leafy vegetables & max. individual) 1440 hr (60 days, for produce & max. individual) 336 hr (14 days, for average individual)

* All data presented from this table are from Reference 1, unless otherwise indicated.

** From Reference 11.

*** From Reference 2.