

10 CFR 50.36a(a)(2) PNPS TS Section 6.0.C.1 Reg. Guide 1.21

Pilgrim Nuclear Power Station Rocky Hill Road Plymouth, Massachusetts 02360-5599

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February 27, 1998 BECo Lfr. 2.98.020

U.S. Nuclear Regulatory Commission Attn: Document Control Desk Washington, D.C. 20555

> Docket No. 50-293 License No. DPR-35

Subject: SEMI-ANNUAL RADIOACTIVE EFFLUENT AND WASTE DISPOSAL REPORT INCLUDING METEOROLOGICAL DATA FOR THE PERIOD JULY 1, 1997 THROUGH DECEMBER 31, 1997

In accordance with the requirements of 10 CFR 50.36a(a)(2), Pilgrim Nuclear Power Station Technical Specification Section 6.9.C.1, and Regulatory Guide 1.21, the Foston Edison Company submits the semi-annual Radioactive Effluent and Waste Disposal Report Including Meteorological Data for the period of July 1 through December 31, 1997.

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

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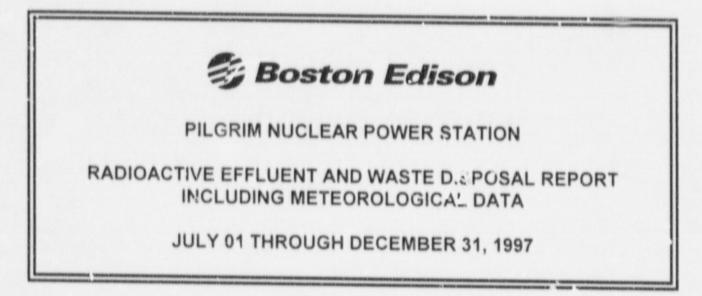
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PILGRIM NUCLEAR POWER STATION

Radioactive Effluent and Waste Disposal Report Including Meteorological Data

July 01 through December 31, 1997





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Pilgrim Nuclear Power Station Effluent and Waste Disposal Report July-December 1997

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EXECUTIVE SUMMARY

BOSTON EDISON COMPANY PILGRIM NUCLEAR POWER STATION RADIOACTIVE EFFLUENT AND WASTE DISPOSAL REPORT INCLUDING METEOROLOGICAL DATA JULY 01 THROUGH DECEMBER 31, 1997

INTRODUCTION

This report quantifies the radioactive gaseous, liquid, and radwaste releases, and summarizes the local meteorological data for the period from July 01 through December 31, 1997. 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 Material in Liquid and Gaseous Effluents from Light Water Cooled Nuclear Power Plants".

The quantity of radioactive material released from PNPS was determined from sample analyses and continuous on-line monitoring of gaseous releases from the main stack, reactor building vent, turbine building, and various decontamination facilities, and liquid releases into the discharge canal. Pilgrim Nuclear Power Station was in a refueling outage from mid-February through late April. Activities associated with refueling can affect effluent releases. Noble gas releases tend to decrease since the reactor is not operating, while releases of other gaseous and liquid effluents can increase as systems are worked on, equipment is docontaminated, and additional wastes are processed.

The quantity and volume of radioactive waste which was shipped offsite from PNPS for processing and burial were determined from data contained on the radwaste shipping documentation. The meteorological data were obtained from monitoring instruments located on the 220-foot meteorological tower located at Pilgrim Station.

GASEOUS EFFLUENTS

Gaseous radioactive releases for the reporting period are quantified in Tables 1A, 1B, and 1C. Radioactive noble gases released during the period totaled 74 Curies. Releases of radioactive particulates and iodines totaled 0.006 Curies, and tritium releases totaled 24 Curies. No gross alpha radioactivity was detected in gaseous effluents.

LIQUID EFFLUENTS

Liquid radioactive releases for the reporting period are quantified in Tables 2A and 2B. Liquid effluents released into the discharge canal contained 0.01 Curies of fission and activation products, and 5.7 Curies of tritium. No dissolved/entrained noble gases or gross alpha radioactivity were detected in liquid effluents.

SO' ID WASTE

Solid radioactive waste shipped offsite for processing and disposal during the reporting period is described in Table 3. Approximately 5 cubic meters of solid waste, containing 7.8 Curies of radioactivity, were shipped during the reporting period.

METEOROLOGICAL DATA

Meteorological joint frequency distributions are listed in Tables 4A and 4B. The data recovery for the reporting period was about 97%, and 94% for the entire year. The predominant wind direction was from the southwest, which occurred approximately 14% of the time during the reporting period. The predominant stability class was Class E, which occurred about 37% of the time during the reporting period

CONCLUSION

The PNPS Technical Specifications contain limiting conditions for operations and operational objectives to limit doses resulting from releases of radioactivity to the environment. None of the limiting conditions for operation or operational objectives associated with liquid or gaseous effluents were exceeded during the reporting period, as confirmed by conservative dose assessments performed at weekly and monthly intervals. Detailed dose assessments will be published in a supplement report due April 01, 1998. Conformance to the PNPS Technical Specification operational objectives ensures that releases of radioactivity in liquid and gaseous effluents are kept as low as reasonably achievable in accordance with 10 CFR Part 50, Appendix I. Compliance with the Technical Specifications also demonstrates that requirements of the Environmental Protection Agency's nuclear fuel cycle standard, 40CFR190.10, Subpart B, have been met.

1. INTRODUCTION

This report is issued for the period of July 01 through December 31, 1997 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 Material 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 gaseous and liquid 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 in 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 01, and is to contain impact assessments for both semiannual periods. Since Technical Specification limits for gaseous effluents listed in Table 1A are based on calculated doses, these values are not presented in the semiannual effluent release reports. These "Percent of Technical Specification Limit" values will be presented in the supplemental dose assessment report.

2. RADIOACTIVE EFFLUENT DATA

Radioactive gaseous and liquid releases for the reporting period are given in the standard NRC Regulatory Guide 1.21 format in Tables 1A, 1B, 1C, 2A, 2B, and supplemental information form. Pilgrim Nuclear Power Station was in a refueling outage from mid-February through late April. Activities associated with refueling can affect effluent releases. Noble gas releases tend to decrease since the reactor is not operating, while releases of other gaseous and liquid effluents can increase as systems are worked on, equipment is decontaminated, and additional wastes are processed.

2.1 Gaseous Effluents

Gaseous radioactivity is released from Pilgrim Station to the atmosphere from the main stack, reactor building vent, turbine building, and various decontamination facilities. Combined gaseous effluent releases from all release points are summarized in Table 1A. No alpha activity was detected on any of the particulate filters collected during the reporting period. The total gaseous releases for various categories of radionuclides, as well as the corresponding average release rates, can be summarized as follows:

•	Noble gases:	74 Ci,	4.7 µCi/sec
•	Particulates and iodines with half-life greater than 8 days	0.006 Ci,	0.00038 µCi/sec
•	Tritium:	24 Ci,	1.5 µCi/sec

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

Ground-level effluent releases are detailed in Table 1C. Data in this table includes releases from the reactor building vent, turbine building, and assorted equipment decontamination facilities (e.g., hot machine shop, carbon dioxide pellet decon trailer, plastic media decon trailer, etc.) used during and after the refueling outage. Due to the close proximity of the reactor building, both of these release points are considered to be mixed-mode/ground level release points.

2.2 Liquid Effluents

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Liquid radioactivity is released from PNPS to Cape Cod Bay via the circulating water discharge canal. These effluents enter Cape Cod Bay at the outfall of the canal, ch is located about 1100 feet north of the reactor building.

Liquid effluent releases are summarized in Table 2A. Detailed breakdowns for individual radionuclides are listed in Table 2B. No dissolved/entrained gases or gross alpha radioactivity were detected in liquid effluents released during the reporting period. Total releases for the various categories of radionuclides, as well as their corresponding mean concentrations, can be summarized as follows:

•	Total Effluent Volume:	706,000 Liters
•	Total Dilution Volume:	2,490,000,000 Liters
•	Fission/Activation products:	0.01 Ci, 0.000000004 µCi/mL
•	Tritium:	5.8 Ci, 0.000023 µCi/mL
•	Dissolved/entrained noble gases:	Not Detected

Pilgrim Nuclear Power Station Effluent and Waste Disposal Report Supplemental Information July-December 1997

FACILITY: PILGRIM NUCLEAR POWER STATION

LICENSE: DPR-35

1. REGULATORY LIMITS

- a. Fission and activation gases:
- b,c. lodines, particulates with half-life: >8 days, tritium

500 mrem/yr total body and 3000 mrem/yr for skin at site boundary

1500 mrem/yr to any organ at site boundary

d. Liquid effluents:

0.06 mrem/month for whole body and 0.2 mrem/month for any organ (without radwaste treatment)

2. EFFLUENT CONCENTRATION LIMITS

- a. Fission and activation gases:
- b. lodines:
- c. Particulates with half-life > 8 days:
- d. Liquid effluents:

10CFR20 Appendix B Table II 10CFR20 Appendix B Table II 10CFR20 Appendix B Table II 2E-04 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. lodines:
- c. Particulates:
- d. Liquid effluents:

5. BATCH RELEASES

- a. Liquid Effluents
 - 1. Total number of releases:
 - 2. Total time period (minutes):
 - 3. Maximum time period (minutes):
 - 4. Average time period (minutes):
 - 5. Minimum time period (minutes)
 - Average stream flow (Liters/m. during periods of release of effluents into a flowing stream
- b. Gaseous Effluents

6. ABNORMAL RELEASES

- a. Liquid Effluents
- b. Gaseous Effluents

High purity germanium gamma spectroscopy for all gamma emitters; radiochemistry analysis for H-3, Fe-55 (liquid effluents), Sr-89, and Sr-90

Jul-Sep 1997	Oct-Dec 1997
1.30E+01	1.10E+01
7.20E+02	1.40E+03
1.90E+02	2.80E+02
5.54E+01	1.27E+02
2.0CE+01	2.00E+01
1.18E+06	1.17E+06
None	None
-	
None	None
None	None

Table 1A Pilgrim Nuclear Power Station Effluent and Waste Disposal Report Gasoous Effluents - Summation of All Releases July-December 1997

Period:	Period:	Estimated
Jul-Sep 1997	Oct-Dec 1997	Total Error

A. FISSION AND ACTIVATION GASES

1 utal Release: Ci	3.14E+01	4.22E+01	±22%
Average Release Rate During Period: µCi/sec	3.98E+00	5.35E+00	1.6×6×70
Percent of Technical Specification Limit	*		

B. IODINES

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Total Iodine-131 Release: Ci	3.89E-04	3.64E-04	±20%
Average Release Rate During Period: µCi/sec	4.93E-05	4.61E-05	
Pircent of Technical Specification Limit	*	4	

C. PARTICULATES

Total Release: Ci	5.07E-04	5.43E-04	±21%
Average Release Rate During Period: µCi/sec	6.43E-05	6.89E-05	state 1 PV
Percent of Technical Specification Limit	8		
Gross Alpha Radioactivity: Ci	NDA	NDA	

D. TRITIUM

Total Release: Ci	1.63E+01	7.97E+00	+20%
Average Release Rate During Period: µCi/sec	2.07E+00	1.01E+00	
Percent of Technical Specification Limit	*	*	

Notes for Table 1A:

* Percent of Technical Specification limit values in above sections 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, 1998.

1. NDA stands for No Detectable Activity.

2. LLD for airborne gross alpha activity listed as NDA is 1E-11 µCi/cc.

Table 1B

Pilgrim Nuclear Power Station Effluent and Waste Disposal Report Gaseous Effluents - Elevated Release July-December 1997

	Continuous	Mode	Batch	Mede
Nuclide Released	Jul-Sep 1997	Oct-Dec 1997	Jul-Sep 1997	Oct-Dec 1997

1. FISSION AND ACTIVATION GASES - CI

Kr-85m	9.28E+00	1.08E+01	N/A	N/A
Kr-87	NDA	3.84E+00	N/A	N/A
Kr-88	8.62E+00	1.74E+01	N/A	N/A
Xe-131m	NDA	NDA	N/A	N/A
Xe-133	1.35E+01	9.85E+00	N/A	N/A
Xe-135	NDA	3.10E-01	N/A	N/A
Xe-135m	NDA	NDA	N/A	N/A
Xe-137	NDA	NDA	N/A	N/A
Xe-138	NDA	NDA	N/A	N/A
Total for period	3.14E+01	4.22E+01	N/A	N/A

2. IODINES - CI

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1-131	2.26E-04	2.35E-04	N/A	N/A
I-133	7.67E-04	7.39E-04	N/A	N/A
Total for period	9.93E-04	9.74E-04	N/A	N/A

3. PARTICULATES - CI

Mn-54	NDA	2.37E-05	N/A	N/A
Fe-59	NDA	5.44E-06	000	IN/A
Co-60	NDA	2.35E-05	N/A	N/A
Sr-89	4.89E-05	9.87E-05	N/A	N/A
Sr-90	NDA	NDA	N/A	N/A
Cs-134	NDA	NDA	N/A	N/A
Cs-137	NDA	1.93E-06	N/A	N/A
Ba/La-140	2.08E-04	1.39E-04	N/A	N/A
Total for period	2.57E-04	2.92E-04	N/A	N/A

4. TRITIUM - CI

H-3	1.21E+00	5.83E-01	N/A	N/A
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Notes for Table 1B:

- N/A stands for not applicable.
 NDA stands for No Detectable Activity.
 LLD for airborne radionuclides listed as NDA are as follows:

Fission Gases:	1E-04 µCi/cc
lodines:	1E-12 µCi/cc
Particulates:	1E-11 uCi/cc

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Table 1C Pilgrim Nuclear Power Station Effluent and Waste Disposal Report Gaseous Effluents - Ground Level Release July-December 1997

	Continuous	Mode	Batch Mode	
Nuclide Released	Jul-Sep 1997	Oct-Dec 1997	Jul-Sep 1997	Oct-Dec 1997

1. FISSION AND ACTIVATION GASES - CI

Kr-85m	NDA	NDA	N/A	N/A
Kr-87	NDA	NDA	N/A	N/A
Kr-88	NDA	NDA	N/A	N/A
Xe-133	NDA	NDA	N/A	N/A
Xe-135	NDA	NDA	N/A	N/A
Xe-135m	NDA	NDA	N/A	N/A
Xe-138	NDA	NDA	N/A	N/A
Total for period	NDA	NDA	N/A	N/A

2. IODINES - CI

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I-131	1.63E-04	1 79E-04	N/A	N/A
1-133	1.37E-03	1.27E-03	N/A	N/A
Total for period	1.53E-03	1.40E-03	N/A	N/A

3. PARTICULATES - Ci

Mn-54	NDA	NDA	N/A	N/A
Co-60	2.47E-05	9.59E-06	N/A	N/A
Sr-89	2.08E-04	2.09E-04	N/A	N/A
Sr-90	NDA	NDA	N/A	N/A
Cs-134	NDA	NDA	N/A	N/A
Cs-137	9.19E-06	NDA	N/A	N/A
Ba/La-140	7.83E-06	3.25E-05	N/A	N/A
Total for period	2.50E-04	2.51E-04	N/A	N/A
H-3	1.51E+01	7.39E+00	N/A	N/A

Notes for Table 1C:

- 1. N/A stands for not applicable.
- 2. NDA stands for No Detectable Activity.
- 3. LLD for airborne radionuclides listed as NDA are as follows:

Fission	Gases:	1	E-04	µCi/cc
lodine-		1	E-12	µCi/cc
Particu	ates:	1	E-11	µCi/cc

Table 2A Pilgrim Nuclear Power Station Effluent and Wasie Disposal Report Liquid Effluents - Summation of All Releases July-December 1997

	Period: Jul-Sep 1997	Period: Oct-Dec 1997	Estimated Total Erro
A. FISSION AND ACTIVATION PRODUCTS			
Total Release (not including H-3, noble gas, or alpha): Ci	3.05E-03	6.97E-03	±12%
Average Diluted Concentration During Period: µCi/ml.	3.61E-09	4.25E-09	th 1 th 70
Percent of Effluent Concentration Limit*	4.92E-02%	4.64E-02%]
B. TRITIUM			
Total Release: Ci	4.84E-02	5.7 £+00	9.4%
Average Diluted Concentration During Period: µCi/mL	5.72E-08	3.50E-06	10.470
Percent of Effluent Concentration Limit*	5.72E-03%	3.50E-01%	
C. DISSOLVED AND ENTRAINED GASES			
Total Release: Ci	NDA	NDA	±16%
Average Diluted Concentration During Period: µCi/mL	NDA	NDA	
Percent of Effluent Concentration Limit*	NDA	NDA]
D. GROSS ALPHA RADICACTIVITY			
Total Release: Ci	NDA	NDA	±34%
E. VOLUME OF WASTE RELEASED PRIOR TO DILUT	ION		
Waste Volume: Liters	1.02E+05	6.04E+05	±5.7%
F. VOLUME OF DILUTION WATER USED DURING PE	200		
Dilution Volume: Liters	8.46E+08	1.645+09	±10%

Notes for Table 2A:

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* Additional percent of Technical Specification limit values based on dose assessments will be provided in the annual supplemental dose assessment report to be issued prior to April 1, 1998.

1. NDA stands for No Detectable Activity.

2. LLD tor dissolved and entrained gases listed as NDA is 1E-05 $\mu \text{Ci/mL}.$

3. LLD for liquid gross alpha activity listed as NDA is 1E-07 µCi/mL.

Table 2B Pilgrim Nuclear Polver Station Effluent and Waste Disposal Report Liquid Effluents July-December 1097

	Continuous	Mode	Batch	Mode
Nuclide Released	Jul-Sep 1997	Oct-Dec 1997	Jul-Sep 1997	Oct-Dec 1997
1. FISSION AND AC	CTIVATION PROD	UCTS - CI		
Cr-51	N/A	N/A	6.80E-06	NDA
Mn-54	N/A	N/A	5.12E-04	8.68E-04
Fe-55	N/A	N/A	1.68E-03	4.55E-03
Fe-59	N/A	N/A	3.17E-05	5.30E-06
Co-58	N/A	N/A	8.92E-06	1.63E-06
Co-60	N/A	N/A	6.42E-04	1.38E-03
Zn-65	N/A	N/A	3.26E-C6	3.20E-06
Sr-89	N/A	N/A	9.31E-07	NDA
Sr-90	N/A	N/A	1.72E-0/3	7.23E-05
Zr/Nb-95	N/A	N/A	NDA	NDA
Mo-99/Tc-99m	N/A	N/A	NDA	NDA
Ru-103	N/A	N/A	NDA	NDA
Ag-110m	N/A	N/A	2.96E-06	1.16E-05
Sb-124	N/A	N/A	1.29E-06	NDA
I-131	N/A	N/A	NDA	5.89E-06
1-133	N/A	N/A	NDA	NDA
Cs-134	N/A	N/A	NDA	NDA
Cs-137	N/A	N/A	1.60E-04	7.32E-05
Ba/La-140	N/A	N/A	NDA	NDA
Ce-141	N/A	N/A	NDA	NDA
Total for period	N/A	N/A	3.05E-03	6.97E-03

2. DISSOLVED AND ENTRAINED GASES - CI

Xe-133	N/A	N/A	NDA	NDA
Xe-135	N/A	N/A	NDA	NDA
Total for period	N/A	N/A	NDA	NDA
second seco		14/73	NUA	NDA

Notes for Table 2B:

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N/A stands for not applicable.
 NDA stands for No Detectable Activity.
 LLD for liquid radionuclides listed as NDA are as follows:

Strontium:	5E-08 µCi/mL
lodines:	1E-06 µCi/mL
Noble Gases:	1E-05 µCi/mL
All Others:	5E-07 µCi/mL

3. RADIOACTIVE WASTE DISPOSAL DATA

Radioactive wastes which were shipped offsite for processing and disposal during the reporting period are described in Table 3, in the standard NRC Regulatory Guide 1.21 format.

The total quantity of radioactivity in Curies and the total volume in cubic meters are summarized in Table 3 for the following waste categories:

- Spent resins, filter sludges, and evaporator bottoms;
- Dry compressible wastes, contaminated equipment, etc.;
- · Irradiated components, control rods, etc.; and,
- o Other.

During the reporting period there were no spent resins, filter sludges, etc., shipped from PNPS for processing and disposal. Dry compressible wastes and contaminated equipment buried during the pariod totaled about 5.0 cubic meters and contained about 7.8 Curies of radioactivity. No irradiated components were shipped during the reporting period. No shipments of irradiated fuel were made during the reporting period.

Estimates of major radionuclides, those comprising greater than 1% of the total activity in each waste category shipped, are listed in Table 3. One shipmen: was made to Oak Ridge, TN (Scientific Ecology Group), during the reporting period.

Table 3 Pilgrim Nuclear Power Station Effluent and Waste Disposal Report Solid Waste and Irradiated Fuel Shipments July-December 1997

A. SOLID WASTE SHIPPED OFFS! "E FOR BURIAL OR DISPOSAL (Not irradiated fuel)

1. Estimate of volume and activity content by type of waste

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		Jan-Jun 1997								
Type of waste	Volume - m ³	Curies	Total Error							
 Spent resins, filters, filter sludges, evaporator bottoms, etc. 	None	None	N/A							
b. Dry compressible waste, contaminated equipment, etc.	4.95E+00	7.78E+00	± 25%							
c. Irradiated components, control rods, etc.	None	None	N/A							
d. Other (describe)	None	None	N/A							

2. Estimate of major nuclide composition by type of waste1

Type of waste	Radionuclide	Abundance	Total Error
 Spent resids, filters, filter sludges, evaporator bottoms, etc. 	None	None	N/A
b. Dry compressible waste, contaminated	Mn-54	4.87E+00%	± 25%
equipment, etc.	Fe-55	6.55E+01%	± 25%
	Co-60	2.16E+01%	± 25%
	Ni-63	1.13E+00%	± 25%
	Cs-137	4.83E+00%	± 25%
	Ce-144	1.60E+00%	± 25%
c. Irradiated components, control rods, etc.	None	None	N/A
d. Other (describe)	None	None	N/A

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"Major" is defined as any radionuclide comprising >1% of the total activity in the waste category.

3. Solid Waste Disposition

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Number of Shipments	Mode of Transportation	Destination
1	Tractor-trailer	Scientific Ecology Group ² ,
		Oak Ridge, TN

² This processor provides volume reduction services for dry compressible waste, contaminated equipment, etc. Remaining radioactive wastes will be shipped to Chem Nuclear Systems, Inc. in Barnwell, SC, for final disposal.

B. IRRADIATED FUEL SHIPMENTS & DISPOSITION

Number of Shipments	Mode of Transportation	Destination
None	N/A	N/A

4. METEOROLOGICAL DATA

Meteorological data (Reference 2) are summarized for the reporting period in Tables 4A and 4B, in the standard joint frequency distribution format as given in NRC Regulatory Guide 1.21.

The predominant meteorological conditions observed during the reporting period can be summarized with their corresponding frequencies as follows:

•	Stability Class:	Class E, 37%
•	Wind Direction (from):	Southwest, 14%

33-ft Wind Speed:

4-7 mph, 59%

- 220-ft Wind Speed
- 13-18 mph, 37%

There were a limited number of instances when data collection from the 220-ft meteorological tower was not continuous. Typically, such data losses were attributed to loss of power, malfunction of the sensors, and/or malfunction of the digital dataloggers. Data recovery for the period was about 98% for the 33-ft level, and 97% for the 220-ft level of the tower. When combined with the data collected during the January through June reporting period, overall data recovery for the entire year was approximately 94%, well in excess of the NRC's recommended annual recovery goal of 90%.

Table 4A Distributions of Wind Directions and Speeds for the 33-ft Level of the 220-ft Tower

LTPORTN 20134-28663	7 MET DA	ATA JOJ .	т.	FREQUENCY	DISTRIBUTION	(220-FOC	T TOWER)
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33.0 FT		ATAG		STABI	LITY C	LASS A	W	IND DI	CLASS	FREQU	ENCY	PERCEN	<u>T)</u> =	7.72				
SPRED (MP	(H) N	NNE	NE	ENE	8	ESE	58	SSE	S	6.SW	SW	WSW	W	WIN	NW	NNW	VRRL	TOTAL
CALM	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	.0.	.00	.00	.00	.00	.00	.00	. 01
(2)	.00	.00	.00	00	.00	.00	.00	.00	00	.00	84.	.00	.00		.00	.00	.00	. 01
C-3	0	0	0	ō	1	0	0	C	0	0		0	1					
(1)	.00	.00	.00	.00	. 59	00	.00	.00	.00	.00	90	.00	. 59	. 59	-	1	0	
(\$.00	.00	.00	.00	.05	. 00	.00	.00	.00	.00	.00	.00	.05	.05	. 59	.59	.00	2.9
4-1	17	22	12	16	9	3	2	2	1	4	7	6	9					
(1)	10.00	12.94	7.06	9.41	5.29	1.76	1.18	1.18	. 59	2.35	4.12	3.53		4	8	14	0	13
(2)	.77	1.00	. 54	.73	. 41	.14	29	.09	.05	.18	. 32	3.53	5.29	2.35	4.71	0.24	.00	80.0
8-12	0	0	2	0	0	0	0	0	5	15								
(1)	.00	.00	1.10	.00	.00	.00	.00	.00	2.94				×.	2	0	0	0	2
(2)	.00	.00	.09	.00	.00	.00	.00	.00	.23		*		30	1.18	.00	.00	.00	16.4
								.00	. 6.3				00	.09	.00	.00	.00	1.2
13-10	C	0	0	0	0	0	0	0	1				0	0	0	0	0	
(1)	.00	.00	.00	.00	.00	.00	.00	.00	. 59			.00	.00	.00	00	.00	.00	. 6
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.05		.00	.00	.00	.00	.00	.00	.00	.0
39-24	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.	0	
(2)	.00	/0	0	.00	.00	.00	06	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	. 0
GT 24	0	0	0	0	0	0		0	0	0	0	0	0	0				
(1)	.00	.00	.00	.00	.60	.0.			.00	.00	.00	.00	.00	.00	0	0	0	
(2)	.00	.00	.00	.00	.00	. 0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
SPEEDH	17	22	14	16	10	3	2	2	7	19	11		10					
(1)	10.00	12.94	8.24	9.41	5.88	1.76	1.19	1.18		11.18	6.47	3.53	10	7	9	15	0	17
(2)	. 77		. 64	.73	. 45	.14	.09	.09	.32	.86	. 50	3.53	5.88	4.12	5.19	8.82	.00	100.0

33.0 FT W	IND D	ATA		STABI	LITY C	LASS B				N FREQU		(PERCEN	T) =	2.60				
SPEED (MPH)	M	NNE	NE	ENZ	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	VRB*	TOTAL
CALM	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					0	0	0
(2)	.00	.00	.00	.00	.00	.00	.00	.00	00	.00	.00	.00	.00	.00	.00	.00	.00	.00
											.00	.00	.00	.00	.00	.00	.00	.00
C-3	0	0	0	0	1	0	6	0	0	0	0	0	1					
(1)	.00	.00	.00	.00	1.69	.00	.00	.00	.00		.00			1	0	n	0	3
(2)	.00	.00	.00	.00	.05	.00	.00	.00	.00	.00	.00		1.69	1.19	.00	.00	.00	5.00
										.00	.00	.00	.05	.05	.00	. 00	.00	.14
*-7	0	3	3	4	4	3	?	0	2		7							
(1)	.00	5.08	5.03	F 78	6.78		1.69	.00			11.86	3	3	1	0	3	0	45
(2)	.00	.14	.14	. 9	.19	.14	.05	.00			. 32			1.69	.00	5.09	.00	76.27
									.03	.30	. 32	.14	.14	.05	.00	.14	.00	2.04
8-12	0	0	0	0	0	0	0	0	3	6								
(1)	.00	.00	.00	.00	.00	.00	.00	.00			3.39		0	0	0	0	0	11
(2)	.00	.00	00	.00	00	.00	.00	.00		.27			.00	.00	.00	.00	.00	18.64
									. 7.9	. 41	.09	.00	.00	.00	.00	.00	.00	. 50
13-18	0	0	0	0	0	0	0	0	0	3	0							
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00				0	C	0	0	0	0
(2)	.00	.00	.00	.0:	2.4	.00	.00	.00	.00		.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								
(1)	.00	1.1	.00	.05	.00	.00	.00	.00	.00		00		0	0	0	e	0	e
(2)	.00	.00	.00		.00	.00	.00	.00	.00		.00		.00	.00	.00	0	.00	. 00
									.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
GT 24	0	0	0	0	0	0	0	0	0	0								
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00		0		0	0	0	0	0	0
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00		.00	.00	.00	.00	.00	.00
									.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
ALL SPEEDS	0	3	3	4	5	3	1	0	5	14								
(1)	.00	5a	5.08	6.78	8.47	5.08	1.69	.00			9		4	2	0	3	0	59
(2)	.00	.14	.14	.18	.2	.14	.05	.00			15.25			3.39	.00	5.08	.00	100 00
									. 4.3	. 0.9	. 91	.14	.18	.09	.00	.14	.00	2.68

Table 4A (continued)

3".0 FT W	THE P	ALA		STABL	LITY C	IASS C		IND DI			JENCY (PERCEN	T) =	3.00				
SPEED (MPH)	N	MUE	NE	ENE	E	ESE	SE	SSE	5	SSW	SW	WEW	W	-	EW	NNW	VRBL	TOTA
CALM	0	0	0	0	0	0	0	0	0	0	0							
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	0	0	0	0	0	0	
(2)	.00	.00	.00	.00	.00	.00	.00	00	.00	.00	.00	.00	.00	.00	.00	.00	.00	. 0
								00	.00	.00	.00	.00	. 60	.00	.00	.00	.00	. 0
C-3	0	1	0	0	0	0		0	0	0	0							
(1)	.00	1.52	.00	.00	.00	.00	1.52	.00	.00	.00	.00	0		0	2	1	0	
(2)	.00	.05	.00	.00	.00	.00	.05	.00	.00	.00	.00	.00	1.52	.00	3.03	1.52	.00	9.0
										.00	.00	.00	.05	.00	.00	.05	.00	.2
4-7	0	7	5	4	2	3	2	2	2		4		2					
(1)	.00	10.61	7.58	6.06	3.03	4.55	3.03	3.03		12.12	6.06	1.52	3.03	2	0	0	0	
(2)	.00	. 32	.23	.18	.09	.14	.09	.09	.09		.18	.05	.09	3.03	.00	.00	.00	66.6
												.05	.09	.09	.00	.00	.00	2.0
8-12	0	0	0	0	0	0	0	0	2	9	4		0	0				
(1)	.00	.00	.00	.00	.00	.00	.00	.00		13.64	6.06	1.52	.00	.00	0	0	0	
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.09	. 41		.05	.00	.00	.00	.00	.00	24.1
												.00		.00	.00	.00	.00	
13-10	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0		
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00		00	.00	.00	.00	.00	.00	0	
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	. 30	.00	.00	.00	.00	.00	. 9
													.00		.00	.00	.00	. (
19-24	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		0	
(2)	.00	.00	.00	.00	.00	.00	.00	.00		.00	.00	.00	.00	.00	.00	.00	.00	. 0
														.00	.00	.00	.00	. (
GT 24	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	. 0	.00	.60	.00	.00	.00	.00	.00	0	
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00		.00	. (
												.00	.00	.00	.00	.00	.00	. (
SPEEDS	0	8	5	4	2	3	3	2	4	17	8	2	3	2	2			
(1)	.00	11.12	7.58	6.06	3.03	4.55	4.55	3 03			12.12	3.03	4.55	3.03	3.03	1.52	0	
(2)	.00	.36	.23	.18	.03	.14	.14	.00	.1.3	.77	.36	.09	.14	.09	.09	1.52	.00	100.0

FILGRIM JUL97-SEP97 MET DATA JOINT FREQUENCY DISTRIBUTION (220-FOOT TOWER)

	FT WIND D			STABI	LITY C	LASS D	,				NENCY	(PERCEN	= (T	24.38					
	SPEED (MPH	I) N	NNE	NTR	ENE	E	ESE	SE	SSR	s	SSW	SW	WSW	W	WNW	NW	NINW	VRBL	TOTAL.
	CALM	0	0	0	0	0	0	0	0	0	0	0	0						
	(1)	.00	.00	.00	.00	.00	10	.00	.00	.00	.00	.00	. 90	0	0	0	0	0	0
	(2)	.00	. 00	.00	.00	.00	. 0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	C-3	0	5	11	3	9													
	(1)	.00	. 93	2.05	. 56		5	4	2	3	2	5	0	9	6	3	6	0	73
	(2)	.00	.23	.50	.14	1.68	. 93	.74	. 37	.56	. 37	. 93	.00	1.68	1.12	.56	1.12	.00	13.59
	(=)		. 23	. 50	. 14	. 41	.23	.18	.09	.14	.09	.23	.00	. 41	.27	.14	.27	.00	3.31
	4-7	15	50	34	25	11	13	4	8	37	53	26	10	7	13	16	6	0	328
	(1)	2.79	9.31	6.33	4.66	2.05	2.42	.74	1.49	6.89			1.86	1.30	2.42	2.98	1.12	.00	
	(2)	. 68	2.27	1.84	1.13	. 50	. 59	.10	.36		2.41	1.18	.45	.32	.59	.73	.27	.00	61.08 14.89
	9-12	0	16	4	0	3	2	0	0										
	(1)	.00	2.98	.74	.00	.56	. 37	. 00	.00	27	43	27	4	1	2	0	0	0	129
	(2)	.00	.73	.18	. 20	.14	.09	.00	.00		8.01		.74	.19	. 37	. O J	.00	.00	24.02
									.00	1.23	1.95	1.23	.18	.05	.09	00	.00	.00	5.96
	13-18	4	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0		
	(1)	.74	. 37	.00	.00	.00	.19	. 20	.00	.00	.00	.00	.00	.00	.00	.00	.00	0	7
	(2)	.18	.09	.00	.00	.00	.05	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.30
	19-24	0	0	0	0	0	0	0											
	(1)	.00	.00	.00	.00	.00	.00		0	0	0	0	0	0	0	0	0	0	0
	.2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
						.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	67 24	0	0	0	0	0	0	*	0	0	0	0	0	0					
	(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00			0	0	C	0	0
	(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00		.00	.00	.00	.00	.00	.00
AL	SPEEDS	19	73	40														.00	.00
	(1)		13.59	49	28	23	21	8	10	67	98	58	14	17	21	19	12	0	537
	(2)		3.31	9.12	5.21	4.20	3.91	1.49				10.80	2.61	3.17	3.91	3.54	2.23	.00	100.00
	(=)		3.31	2.22	1.27	1.04	. 95	.36	. 45	3.04	4.45	2.63	. 64	.77	. 95	. 86	.54	.00	24.38

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	33.0 FT W	IND D	ATA		STABI	LITY C	LASS E	W	IND D	CLAS			PERCEN	T) =	37.77				
1	PEED (MPH)	21	NNE	ME	ENTE	E	ESE	SE	SSE	\$	5.5W	(WP	WSW	w	WIN	NW	:05	URL	TOLAL
	CALM	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		0
	(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	C-3	5	5	3	9	12	20	5	17	15	7	9							
	(1)	. 61)	. 60	.36	1.08	1.44	2.40	. 60	2.04	1.80	.84	1.08	15	21	12	11	3	0	169
	(2)	.23	.23	.14	. 41	.54	. 91	.23	.77	. 68	. 32		1.80	2.52	1.44	1.32	.36	.00	20.31
											. 32	. 41	. 68	. 95	. 54	. 50	.14	.00	7.67
	4-7	1	10	4	11		15	13	19	86	168	101	55	14	19	21	9	3	5.2
	2)	.12	1.20	. 48	1.32	.72	*.80	1.56			20.19			1.68	2.28	2.52	1.08	.00	
	(2)	.05	. 45	.18	. 50	. 27	. 68	. 59	. 86		7.63	4.58	2.50	. 64	. 26	. 95	. 41	.00	66.35 25.06
	8-12	2	0	0	0	2		1	2	14	52	10							
	(1)	.24	.00	.00	.00	.24	. 96	.12	.24	1.69	6.25		4	1	2	8	0	0	106
	(2)	.09	.00	.60	.00	.09	.36	.05	.09	. 64	2.36	1.20	. 48	.12	.24	. 96	.00	.00	12.74
									.09	. 0.9	2.30	. 95	.10	.05	.09	. 36	.00	.00	4.81
	13-18	0	0	0	0	1	3	0	0	0	1	0	0	0	0	0	0	0	5
	(1)	.00	.00	.00	.00	.12	.36	.00	00	. 00	.12	.00	.00	.00	.00	.00	.00	00	. 60
	(2)	.00	.00	.00	.00	.05	.14	.00	.00	.00	.05	.00	.00	.00	.00	.00	.00	.00	.23
	19-24	0	0	0	0	0	0	0	6	0	0	0	0	0					
	(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00		0	0	0	0	0
	(2)	.00	.00	.00	.00	.00	.00	. 0 .	.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)	. 6.0	.00	. 90	.00	.00	. 610	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	(2)	.00	.00	.00	.00	.00	, 44	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
LL	SPEEDS	8	15	7	20	21	46	19	38	115	228	120							
	(ī)	.96	1.90	.94	2.40	2.52	5.53	2.28			27.40		74	36	33	40	12	0	832
	(2)	.36	. 68	. 32	. 91	. 95	2.69	.86	1.72	5.22	10.35	5.45		4.33	3.97	4.01	1.44	.00	100.00 37.77

FILGRIM JUL97-SEP97 MET DATA JOINT FREQUENCY DISTRIBUTION (220-FOOT TOWER)

FT WIND DA	ATA		STABL	LITY C	LASS F	'		CLASS			PERCEN	er) =	18.29					
SPEED (MPH)	N	NNE	NE	ENE	E	R SE	SE	SSE	S	S SW		WSW	w	WINN	1996	NNW	VRBL	TOTAL
CALM	0	0	0	0	0	0	0	0	0	0	0	0						
(1)	.00	.00	.00	.00	.00	.00	.e.	.00	.00	.00	.00		0	0	0	0	0	0
(2)	.0.	.00	. 0 :	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
C-3	0	0	1	4	6	P	4	9	24	15	12	13						
(1)	.00	.00	.25	. 99		1 9	. 99	2.23	5.96		2.98		14	4	1	2	0	13.
(2)	.00	.00	.05	.18	. 27	36	.18	. 41	1.09	. 68	.54	3.23	3.47	.99	.25	.50	.00	29.
4-7	0	2	2	5	11	5	0	3	5	56	93	29	16					
(3.)	.00	. 50	.50	1.24	2.73	1.24	.00	.74			23.08	7.20	3.47	4	3	2	0	23
(2)	.00	.09	0.9	. 23	. 50	.23	.00	.14	.23		4.22	1.32	. 64	.99	.74	.50	.00	58.0
8-12	0	0	0	0	0	0	0	0	0	34	17	1	0					
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	8.44		.25	.00	0	0	0	0	5
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.54	.77	05	.00	.00	.00	.00	.00	12.9
13-18	0	0	e	0	0	0	0	0	0	r	0	0	0	0				
(1)	.00	.00	.00	.00		.00	.00	.00	.00	.0.		.00	.00		0	0	0	
(^)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	00	.00	.00	.00	.00.	.00	.0
19-24	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	0	0	0	
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	00	.00	.00	.00	.00	.0
GT 24	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		0	0	0	
(2)	.00	.00	.00	.00	.00	. 60	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00.	.0
L COMEDS	0	2	3	9	17	13	4	12	29	105	122	43						
(1)	.00	. 50	.74	2.23	4.22	3.23	. 99	2.98			30.27		28	8	4	4	0	40
(2)	.00	.09	.14	. 41	.77	.59	.18	. 54			5.54		6.95	1.99	. 99	. 99	.00	100.0
									4.94	4.11	0.04	. 95	1.27	.36	.18	.18	.00	18.2

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A.

33.0 FT	WIND I	ATA		STAB	ILITY (CLASS (CLAS	S FREQ	UENCY	PERCE	= (T9	6.17				
SPEED (MPH	() N	NNE	NE	ENE		-	58			ON FRO		WSW	W	WEIW	NW	IDW	VRBL	TOTAL
CALM	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
(2)	.00	.00	. 00	.00	.00	.00	. 00	. 00					.00	.00	.00	.00	.00	.00
C-3	0	0	2		1	2	0	1	2	2	8	10	0	1	0	0	0	32
(1)	.00	.00			.74		.00	.74			5.60	7.35	.00	.74	.00	.00	.00	23.53
(2)	.00	.00	.09	.14	.05	.09	.00	. 05	.09	.09	. 36	. 45	.00	.05	.00	.00	.00	1.45
4-7	0	0	3		10	0	0	0	1	5	25	20	7	5	2	0		99
(1)	.00	.00		15.44	7.35	.00	.00	. 00				14.71	5.15	3.68	1.47	.00	.00	72.79
(2)	.00	.00	.14	. 95	. 45	.00	.00	.00	. 05	.23	1.13	. 91	. 32	. 23	.09	.00	.00	4.49
8-12	0	0	0	0	1	0	0	0	0	0	4	c	0	0	0	0	0	5
(1)	.00	.00	.00		.74	.00	.00	.00	.00				.00	.00	.00	.00	.00	3.68
(2)	.00	.00	.00	.00	.05	.00	.00	.00	.00	.00	.18		.00	.00	.00	.00	.00	.23
13-18	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
(2)	.00	.00	.00	.00	.00	.00	.00	. 00	.00	.00	.00		.00	.00	.00	.00	.00	.00
194	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	0.00
(2)	. 30	.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				
(1)	.00	.00	.00	.00	.00	.00	.00	.00			.00		.00	.00	0.00	0.00	0.00	00.00
(2)	.00	.00	.00	.00	.00	.00	.00	.00			.00	.00	.00	.00	.00	.00	.00	.00
ALL SPEEDS	0	0	5	24	12	2	0	1	3	7	37	30	7					
(1)	.00	.00	3.68	17.65		1.47	.00		2.21			22.06		4.41	2	0.00	0.00	136
(2)	.00	.00	.23	1.09	. 54	.09	.00					1.36		.27	.09	.00	.00	6.17
3.0 FT WIND D		NNE	NE	LITY C	-10125 F	ESE	a R	VINE D	IRECTI	ON FROM	d	NT) = 1 WSW	00.00. W	WINT	NW	NNW	VRBL.	TOJAL
CALM	0	0	0	0												man	TPLACE	10 ares
(1)	.00	.00	.00	.00	0.00	0.00	0.00	.00		0.00	0	0	0	0	0	0	0	0
(2)	.00	.00	.00	.00	.00	.00	.00	.00			.00	.00	.00	.00	.00	.00	.00	.00.
C-3	5	11	17	19	30	35	14	29	44	26	34	38	47					
(1)	.23	. 50	.77	.86	1.36	1.59	. 64	1.32		1.19			2.13	25	18	13	0.00	405
(2)	.23	. 50	. 77	. 96	1.36	1.59	. 64	1.32			1.54		2.13	1.13	. 82	. 59	.00	18.38
4-7	33	94	63	86	53	42	22	34	134	302	263	124	56	48	51	34	0	
(1)	1.50	4.27		3.90	2.41	1.91	1.00	1.54	6.08	13.71	11.94	5 63	2 64	2 10	2.27	1.54	.00	1438
(2)	1.50	4.27	2.86	3.90	2.41	1.91	1.00	1.54	6.08	13.71	11.94	5.63	2.54	2.10	2.27	1.54		65.27
8-12	2	16	6	0	6	10	1	2	51	159	60	10		6				
(1)	.09	.73				. 45	.05	.09	2.32	7.22	3.09	. 45	.09		8.36	.00	0.00	347
(2)	. 0.9	.13	. 27	.00	. 27	. 45	.05	.09	2.32	7.22	3.09	.45	.09	.27	.36	.00	.00	15.75
13-18	4	2	0	0	1	4	0	0	1	1	0	0	0	0	0			
(1)	.18	.09	.00	.00	.05	.18	.00	.00			.00	.00	.00	.00	.00	00.00	0.00	13
(2)	. 18	.09	.00	.00	.05	18	.00	.00			.00	.00	.00	.00	. 20	.00	.00	.59
19-24	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	0.00	.00	.00
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
OT 24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
(1)	.00	.00	.00	.00	.00	.00	.02	.00		.00	.00	. 00	.00	.00	.00	0.00	0.00	0.00
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.06	.00	.00	.00	.00	.00	.00	.00	.00
ALL SPEEDS	44	123	86	105	90	91	37	65	230	490	365	172	105	79	76			
(1)																		
		5.58	3.90	4.77	4.09	4.13	1.68	2.95	10.44	22.15	16.57	7.81	4 77	9 19	3 45	47	0	2203
(2)			3.90	4.77 4.77	4.09	4.13	1.68	2.95	10.44	22.15	16.57	7.81	4 77	9 19	3 45	3 13	.00	100.00

PILOPIM JUL97-SEP97 MET DATA JOINT PREQUENCY DISTRIBUTION (220-POOT TOWER)

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(1) = PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PAGE (2) = PERCENT OF ALL GOOD OBSERVATIONS FOR THIS PERIOD C \sim CALM (WIND SPEED LESS THAN OR EQUAL TO .9' MPR)

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						LASS A			CLASS	THE GUI	SNCT (PERCEI	(T) an	6.36				
SPEED (MP)	N CH	Marie	NE	ENE	8	ESK												
				BALE .	•	536	SF	SSE	8	SSW	SW	WSW	W	WERM	NW	NNW	VRBL	TOTA
CALM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
(1)	0	.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	.0
C-3	0	1	0	0	0	0	0											
(1)	.00	.75	.00	.00	.00			0	1	0	0	0	0	0	0	0	0	
(2)	.00	.05	.00	.00	00	.00	.00	.00	.75	.00	.00	.00	.00	.00	.00	.00	.00	1.4
				.00	00	.00	.00	.00	.05	.00	.00	.00	. 00	.00	.00	.00	. 00	.(
4-7	5	12	14	2	8	8	5	0	0	0	0	5						
(1)	3.73	8.96	10.45	1.49	5.97	5.97	3.73	.00	.00	.00	.00		16	12	17	9	0	11
(2)	.24	. 57	. 66	.09	. 38	. 38	.24	.00	.00	.00	.00				12.69	6.72	.00	84.3
									.00	.00	.00	.24	.76	. 57	. 81	. 43	.00	5.
8-12	1	0	1	0	0	0	0	0	1	0	0	2	6	5	0	3	0	
(2)	. 75	.00	.75	.00	.00	.00	.00	.00	.75	.00	.00	1.49	4.48	3.73		2.24	.00	
(2)	.05	.00	.05	.00	.00	.00	.00	.00	.05	.00	.00	.09	.26	.24		.14	.00	14.
13-18	0	0	0	0	0	0	0	e	0	0	0							
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00		0	U	0	0	0	0	
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.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	3	0	0	0			
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	0	0	
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	. (
													.00	.00	.00	. 60	.00	. (
OT 24	0	0	0	5	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		
(2)	.00	.00	.00	. 00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
SPEEDS	6	13	15	2	8		5	υ	2									
(1)	4.48	9.70	11.19	1.49	5.97	5.97	3.73	.00	1.49	0	0	7	22	17	17	12	0	7
(2)	.28	62	. 71	.09	. 38	. 38	.34			.00	.00				12.69	8.96	.00	100.0
						. 36	1.24	.00	.09	.00	.00	. 33	1.04	. 81	.81	. 57	.00	6.1

PILGRIM OCT97-DEC97 MET LATA JOINT PREQUENCY DISTRIBUTION (220-FOOT TOWER)

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0 FT WIND I			STABI	LITY C	LASS B		W	CLASS	FREQU	ENCY (PERCER	= (TR	3.32					
SPEED (MP)	() N	NNE	NE	ENE	E	ESE	SE	SE	S	SSW	SW	WSW	W	WINW	NW	NNW	VRBL	TOTA
CALM	0	0	0	0	0	0	0	0										
(1)	.00	.00	.00	.00	.00	.00	.00		0	0	0	0	0	0	0	0	0	
(2)	.00	.00	.00	.00	.00	.00		.00	.00	.00	.00	.00	.00	.00	.00	.00	00	. 0
				.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	. 0
C-3	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			0	0	0	
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00		.00	.00	.00	.00	.00	. 0
										.00	.00	.00	.00	.00	.00	.00	.00	. 0
4-7	1	1	3	1	3	0	2	0	0	1	3	8	9	3	1	3	0	
(1)	1.43		4.29	1.43	4.29	.00	2.96	.00	.00	1.43	4.29	11.43			1.43	4.29		
(2)	.05	.05	.14	.05	.14	.00	.09	.00	.00	.05	.14		. 43	.14	.05		.00	55.7
													. 43		.05	.14	.00	1.4
8-12	0	6	3	0	0	0	2	0	2	0	0	3						
(1)	.00	8.57	4.29	.00	.00	.00	2.86	.00	2.86	.00	.00	4.29		2		2	0	-
(2)	.00	.28	.14	.00	.00	.00	.09	.00	.09	.00	.00	.14	5.71	2.86	1.43	2.86	. 00	35.1
											.00	. 7.4	.19	.09	.05	.09	.00	1.1
13-18	0	1	0	0	0	0	0	0	0	0	0							
(1)	.00	1.43	.00	.00	.00	.00	.00	.00	.00	.00	.00	0	1	0	0	0	0	
(2)	.00	.05	.00	.00	.00	.00	.00	.00	.00	.00		.00	1.43		.00	.00	.00	8.5
									.00	.00	.00	.00	.05	.19	.00	.00	.00	.:
19-24	C	0	0	0	0	0	0	0	0	c								
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	0	0	0	0	0	0	0	
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	. (
									.00	.00	.00	.00	. 40	.00	.00	.00	.00	. (
GT 24	0	0	0	0	0	0	0	c	0	0	0	0	0					
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00		0	0	0	0	
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	. (
										.00	.00	.00	.00	.00	.00	.00	.00	. (
LL SPEEDS	1	8	6	1	3	0	4	0	2	1	3	11	14	9	2		-	
(1)		11.43	8.57	1.43	4.29	.00	5.71	.00	2.86	1.43		15.71				5	0	
(2)	.05	. 38	.28	.05	.14	.00	.19	.00	.00	.05			20.00	.43	2.86	7.14	.00	100.0

(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)

	33.0 FT 1	WIND I	ATAC		STABI	LITY C	LASS C				FREQU N FROM		(PERCENT	*) =	4.84				
1	PLED (MPH)	81	NNE	NE	ENE	R	ESE	SE	SSE	\$	S.SW	SW	WSW	W	WINW	NW	NNW	VRAL	TOTAL
	CALM	0	0	0	v	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	1	0	0	0	0	1	0	0	0	1	2	0	0	5
	(1)	.00	.00	.00	.00	. 92	.00	.00	.00	.00	. 98	. * '	.00	00	82.	1.96	.00	.00	4.90
	(2)	.00	.00	.00	.00	.05	.00	.00	.00	.00	.05	.00		.00	.05	.09	.00	.00	.24
	4-7	4	2	1	3	2	1	1	1	1	0	4	16		6	4	1	0	55
	(1)	3.92	1.96	. 98	2.94	1.96	98	. 98	. 98	. 98	.00			7.84	5.88	3.92	. 98	.00	53.92
	(2)	.19	.09	.05	.14	.09	.05	.05	.05	.05	.00	.19		. 38	.28	.19	.05	.00	2.61
	8-12	1	6	4	1	0	0	0	0	1	2	4	9	9	0	0	0	*	37
	(1)	. 98	5.88	3.92	. 50	.00	.00	.00	.00	. 98	1.96	3.92	8.82	8.82	.00	.00	.00	.00	36.27
	(2)	.05	.20	19	.05	.00	.00	.00	.00	.05	.09	.19	. 43	. 43	.00	.00	.00	.00	1.76
	13-10	0	3	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	5
	(1)	.00	2.94	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	. 98	. 98	.00	.00	.00	4.90
	(2)	.00	.14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	. 65	.05	.00	.00	.00	.24
	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	. 10	.00	.00	.00	.00	.00	.00
	(2)	.00	.00	.00	.00	. 00	.00	.00	.00	.00	.00	. 00		.00	.00	.00	.00	.00	.00
	OT 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	. 20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
ALL	SPEEDS	5	11	5	4	3	1	1	1	2	3	8	25	18		6	1	0	102
	(1)		20.78	4.90	3.92	2.94	. 99	. 98	. 98	1.96	2.94	7.84		7.65	7.84	5.88	. 98	.00	100.00
	(2)	.24	. 52	.24	.19	.14	. 6.5	.05	.05	.09	.14	. 38	1.19	. 85	. 38	. 20	.05	.00	4.84

FILGRIM OCT97-DEC97 MET DATA JOINT FREQUENCY DISTRIBUTION (220-FOOT TOWER)

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33.0 PT WIND	DATA		STABL	LITY C	LASS I	,	,			NENCY (NT) =	32.92					
SPRED (M	PF) N	NHE	NE	ENE	R	ESE	SE	SSR	8	SSW	SW	WSW	W	WEIW	NW	NNW	VABL	TOTAL
CALM	0	0	0	0	0	0	0	Ű	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
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
C-3	1	2	3	3	6	2	5	3	2	4	2	8	7	3	2	1	0	54
(1)	.14	.29	.43	. 43	.86	.29	.72	. 43	.29	. 58	.29	1.15	1.01		.29	.14	.00	7.78
(2)	.05	.09	.14	.14	.28	.09	.24	.14	.09	.19	.09	. 38	. 33		.09	.05	.00	2.56
4-7	12	12	11	13	9	21	4	5	10	19	29	40	38	24	17	5	0	269
(1)	1.73	1.73	1.59	1.87	1.30	3.03	. 58	.72	1.44	2.74	4.18				2.45	.72	.00	38.76
(2)	. 57	. 57	. 52	. 62	. 43	1.00	.19	.24	. 47	. 90	1.38	1.90	1 80	1.14	. 91	.24	.00	12.76
0-12	16	45	43	1	8	9	1	1	6	10	13	31	33	37	25	6	0	285
(1)	2.31	6.48	6.20	.14	1.15	1.30	.14	.14	. 86	1.44	1.87	4.47	4.76	5.33	3. 60	.86	.00	41.07
(2)	.76	2.13	2.04	.05	. 38	. 43	.05	.05	.28	. 47	. 62	1.47	1.57	1.76	1.19	.28	.00	13.52
13-18	2	16	19	1		1	0	0	0	6	2	2	17	15	0	0	0	86
(1)	.29	2.31	2.74	.14		.14	.00	.00	.00	.86	.29	.29	2.45	2.16	.00	.00	.00	12.39
(2)	.09	.76	. 90	.05	. 24	.05	.00	.00	.00	. 28	.09	.09	. 81	.71	.00	.00	.00	4.08
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 SPREDS	31	75	76	18	28	33	10	9	18	39	46	81	95	79	44	12	0	694
(1)	4.47	10.01	10.95	2.59	4.03	4.76	1.44	1.30	2.59	5.62				11.38	6.34	1.73	.00	100.00
(2)	1.47	3.56	3.61	.85	1.33	1.57	. 47	. 43		1.85				3.75	2.09	. 57	.00	32.92

(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 M2H)

	33.0 FT W	IND D	ATA		STABI	LITY C	LASC E			CLASS	PREQU	ENCY	PERCEN	= (T?	36.72					
	SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	RECTIO	S SW	SW	WE'N	W	WNW	NW	NDR#	VRBL	TOTAL	
	CALM	0	0														Autor.	* Public	TOTAL	
	(1)	.00	.00	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2	
	(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.26	.00	.00	.00	.00	.00	.00	.26	
	(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.09	.00	.00	.00	.00	.00	.00	.09	
	C-3	1	3	2	0	5	5	26	14	17	14	20	26	26	6	9		0		
	(1)	.13	. 39	.26	.00	. 65	. 65	3.36	1.01	2.20	1.61	2.58		3.36	.78	1.16	.13		175	
	(2)	.05	.14	.09	.00	.24	.24	1.23	. 66	.81	. 66	. 95	1.23	1.23	.28	. 43	.05	.00	22.61 8.30	
	4-7	0	3	6	5	8	9	22	18	33	33									
	(1)	.00	. 39	.78	. 65	1.03	1.16	2.84	2.33		4.26	76		79	34	22	7	0	175	
	(2)	.00	.14	.28	.24			1.04	.85	1.57			12.92		4.39	2.84	. 90	.00	58.79	
							. 45	4.04		1.57	1.57	3.61	4.74	3.75	1.61	1.04	. 33	.00	21.58	
	9-12	0	2	1	0	5	7	4	4	9	18	22	17	21	2					
	(1)	.00	.26	.13	.00	. 65	. 90	. 52	. 52	1.16	2.33	2.84	2.20	2.71	.26	.13	3	0	116	
	(2)	.00	.09	.05	.00	.24	. 33	.19	.19	. 43	.85	1.04	.81	1.00	.09	. 15	.39	.00	14.99	
														2.00	.09	.05	.14	.00	5.50	
	13-18	2	1	1	3	6	2	0	0	1	2	0	1	4	1	0	0	0	24	
	(1)		.13	.13	. 39	.78	.26	.00	.00	.13	.26	.00	.13	. 52	.13	.00	.00	.00	3.10	
	(2)	.09	.05	.05	.14	.28	.09	.00	.00	.05	.09	.00	.05	.19	.05	.00	.00	.00	1.14	
	19-24	0	0	0	0	2	0													
	(1)	.00	.00	.00	.00	.26	.00	.00	0	0	0	v	0	0	0	0	0	0	2	
	(2)	.00	.00	.00	.00	.09	.00		.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.26	
						.09	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.09	
	GT 24	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	0	0	0	
	(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
ALL	SPREDS	3	9	10		20														
	(1)	. 39	1.16	1.29	1.03	26	23	52	36	60	67	120	144	130	43	32	11	0	774	
	(2)	.14	. 43	. 47	. 38			6.72	4.65	7.75			18.60		5.56	4.13	1.42	.00	100.00	
	(-)			/	. 36	1.23	1.09	2.47	1.71	2.85	3.18	5.69	6.83	6.17	2.04	1.52	. 52	.00	36.72	

PILGRIM OCT97-DEC97 MET DATA JOINT FREQUENCY DISTRIBUTION (220-FOOT TOTHER)

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IT WIND DA			O LABII	LITY CI	nas r			CLASS IND DI				= (TR	13.57					
SPRED (MPH)	N	NNE	NE	ENE	B	ESE	SE	SSE	s	SSW	SW	WSW	W	WINW	NW	NNW	VABL	TCTAL
CALM	0	0	0	0	0	0	r	0	0	0		0						
(*)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	. 35		0	0	0	0	0	3
-1	.00	. 30	.00	.00	.00	.00	.00	.00	.00	.00	.05	.00	.00	.00	.00	.00	.00	. 3
C-3																		
	0	0	0	0	0	0	8	17	12	13	17	11	19	4	0	1	0	10
(1)	.00	.00	.00	.00	.00	.00	2.80	5.94	4.20	4.55	5.94	5.85	6.64	1.40	.00	.35	.00	35.6
(2,	.00	.00	. 60	.00	.00	.00	. 38	. 81	. 57	. 62	. 91	. 52	. 90	.19	.00	.05	.00	4.8
4-7	0	0	0	0	0	0	0	9	6	33	81	21						
(1)	.00	.00	.00	.00	.00	.00	.00	3.15			28.32		11	0	0	0	0	16
(2)	.00	.00	.00	.00	.00	.00	.00	.43			3.84	7.34	3.65	.00	.00	.00	.00	56.2
									. 20	4.01	5.84	1.00	. 52	.00	.00	.00	.00	7.6
8-12	0	0	0	0	0	0	0	0	0	6	14	1	0					
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.10	4.90	. 35		0	0	0	0	2
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.28	. 66	.05	.00	.00	.00	.00	.00	7.3
											.00	.05	.00	.00	.00	.00	.00	1.0
13-18	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0		
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	. 35	.00	.00	.00	.00	.00		0	
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.00	.00	.00	.00	.00	.00	.00	. 3
														.00	.00	.00	.00	. 0
19-24	0	0	0	0	0	0	0	0	C	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	0
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	. 0
GT 24	0	0	0	0	0	0	0	0	0	0								
(1)	. 00	.00	.00	.00	.00	.00	.00	.00	.00		0	0	0	0	0	0	0	
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	. 0
							.00	.00	.00	.00	.00	.00	. 0	.00	.00	.00	.00	. 0
L SPEEDS	0	0	0	0	0	0	8	26	18	53	113	33	30	4		-		
(1)	.:0	.00	.00	.00	.00	.00	2.80	9.09					10.49		0	1	0	28
(2)	.00	.00	.00	.00	.00	.00	. 38	1.23	.85		5.36	1.57		1.40	.00	5	.00	100.0

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

33.0 FT W.	IND D	ATA		STABII	ITY CI	LASS G	w	IND DT		FREQUE		(PERCEN	T) =	2.28				
SPEED (MPH)	N	NNE	NE	ENE	8	RSE	58	SSE	5	SSW	SW	WSW	W	WENT	NW	NINIW	VRBL	TOTA
MIAD	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			(
(2)	.00	.00	.00	. 00	.00	.00	.00	.00	.00	.00	.23	.00	.00	.0.1	.00	.00	.00	.00
C-3	0	0	0	0	0	0	0	0	1	1	2	1	2			0		
(1)	.00	.00	.00	.00	.03	.00	.00	.00	2.08	2.08	4.17	2.08	4.17	2.08	2.08		0	
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.05	05	.09	.05	.09	.05	.05	.00	.00.	18.75
4-7	0	0	0	0	0	0	0	0	0	2	22	7	0	1	0	0	0	33
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00			14.58	.00	2.08	.00	.00	.00	
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.09			.00	.05	.00	.00	.00	66.6 1.5
8-12	0	0	0	0	0	0	0	0	0	3	3	0	0	0	0	0	0	
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	6.25	6.25	.00	.00	.00	.00	.00	.00	12.5
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.14	.14		.00	.00	.00	.00	.00	.2
13-18	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0			
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.08	.00	.00	.00	.00	.00	0	
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.00	.00	.00	.00	.00	.00	2.0
19-24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
(1)	.00	.00	.00	.00	.00	.00	.06	.00	.00	.00	.00		.00	.00	.00	0	0	
(2)	. 90	.00	.00	.00	0.0	.00	.00	.00	.00	.00	.00		.00	.00	.00	.00	.00	.0
GT 24	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		0	0	
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0
SPEEDS	0	0	0	0	0	0	0	0	1	6	2%							
(1)	.00	.00	.00	.00	.00	.00	.00	.00				16.37	4 12	2	1	0	0	4
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.05	.28			4.17	4.17	2.08	.00	.00	100.0

FILGRIM OCT97 DEC97 MET DA	TA JOINT	FREQUENCY	DISTRIBUTION	(220-FOOT TOWER)
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	FT WIND DJ	ATA		STABI	LITY C	LASS A	LL		CLASS IND DI				1T) = :	100.30					
	SPEED (MPH)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW								
					_	-			008		224	SW	WSW	W	MENN	MW	NNW	VRBL	TOTAL
	CALM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0		
	(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.14	.00	.00	.00	.00		0	3
	(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.14	.00	.00	.00	.00	.00	.00	.14
																.00	.00	.00	.14
	C-3	2	6	5	3	12	7	39	34	33	33	41	46	54	15	14	3	0	347
	(1)	.09	.28	.24	.14	.57	.33	1.85	1.61		1.57			2.56	. 71	. 66			
	(2)	.09	.28	.24	.14	. 57	. 33	1.85	1.61	1.57		1.94		2.56	.71	. 66	.14	.00	16.40
														4.00		.00		.00	16.46
	4-7	22	30	35	24	30	39	34	33	50	88	215	197	161	80	61	25		
	(1)	1.04	1.42	1.66	1.14	1.42	1.85								3.80	2.89	1.19	0	1124
	(2)	1.04	1.42	1.66	1.14	1.42	1.95		1.57		4.17	10.20	9.35		3.80	2.89	1.19	.00	53.32
													4.00	1.04	3.60	2.09	7.75	.00	53.32
	8-12	18	59	52	2	13	16	7	5	19	39	56	63	73	46	27	14		
	(1)		2.80	2.47	.09	. 62	.76	.33	.24	. 90	1.85	2.66			2.18	1.28	. 66	0	50 9
	(2)	.85	2.80	2.47	.09	. 62	.76	. 33	.24	. 90	1.85	2.66			2.18	1.28	. 66	.00	24.15
														3.40	6.40	1.20	.00	.00	24.15
	13-18	4	21	20	4	11	3	0	0	1	9	3	3	23	21	U	0		
	(1)	.19	1.00	. 95	.19	. 52	.14	.00	.00	.05	.43	.14	.14		1.00	.00		0	123
	(2)	.19	1.00	. 95	9	. 52	.14	.00	.00	.05	. 43	.14	.14		1.00	.00	.00	.00	5.83
														4.64	1.00	.00	.00	.00	3.01
	19-24	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	
	(1)	.00	.00	.00	.00	.09	.00	.00	.00	.00	00	.00	.00	.00	.00	.00	.00		2
	(2)	.00	.00	.00	.00	.09	.00	.00	.00	.00	.00	.00	.00		.00	.00	.00	.00	.05
															.00	.00	.00	.00	. 0 9
	GT 24	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		0	(
	(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
															.00	.00	.00	.00	. 61
ALL	SPEEDS	46	116	112	33	68	65	80	72	103	169	318	309	311	162	102	42		
	(1)	2.18	5.50	5.31	1.57	3.23	3.08	3.80		4.89				14.75	7.69	4.84	42	9	210:
	(2)	2.18	5.50	5.31	1.57	3.23		3.80			8.02	15 0.9	14 66	14.75	7.69	4.84	1.99	.00	100.00

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

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Table 4B Distributions of Wind Directions and Speeds for the 220-ft Level of the 220-ft Tower

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FILGRIM JUL97-SEP97 M	ATAD THE	JOINT	FREQUE	CY DISTRIBUTI	ON (220	-FOOT TOWN	(R)
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220

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	220.0 FT W	IND D	ATA		STAB	LITY C	A SSAL		THE DY	CLASS RECTIO	FREQU	ENCY (PERCEN	T) =	7.52				
1	PERD (MPH)	N	NNE	NE	ENE	R	ESR	SE	SSE	S	S SW	SW	WSW	W	WARW	MM	NEW	VRBL	TOTAL
	CALM	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		0	0	0
	(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				
	(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00		0	0	0	0
	(2)	. 00	.00	.00	.00	00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	4-7	1	5	1	0	2	0	0	0	0	0	1	3	3	0	1	5		
	(1)	. 61	3.07	. 61	.00	1.23	.00	00	.00	.00	.00	. 61	1.84	1.84	.00			0	22
	(2)	.05	.23	.05	.00	.09	.00	.00	.00	.00	.00	.05	.14	.14	.00	. 61	3.07	.00	13.50
	8-12	4	6	3	1	16	3	3	1	0	2	3	4	6	2	5	10	0	
	(1)	2.45	1 68	1.84	. 61	9.82	1.84	1.04	. 61	.00	1.23	1.84	2.45	3.68	1.23	3.07	6.13		69
	(2)	. 18	. 28	.14	.05	.74	.14	.14	.05	.00	.09	.14	.18	.28	.09	.23	. 46	.00	42.33
	13-18	7	2	8	0	0	1	2	0		6	9	0	4	1	0	7	0	
	(1)	4.29	1.23	4.91	.00	.00	. 61	1.23	.00	3.68	3.68	5.52	.00	2.45	. 61	.00	4.29		53
	(2)	. 32	.09	. 37	.00	.00	.05	.09	.00	.28	.28	. 42	.00	.18	. 25	.00	. 32	.00	32.52
	19-24	0	0	0	0	0	0	0	0	5	2	0	0	0	2	5	5	0	
	(1)	.00	.00	.00	.00	.00	.00	.00	.00	3.07	1.23	.00	.00	.00	1.23	3.07	3.07		19
	(2)	.00	. 00	.00	.00	.00	.00	.00	.00	. 23	.09	.00	.00	.00	.09	.23	.23	.00	11.66
	GT 24	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	0	0	0
	(2)	.00	.00	.00	.00	. 00	. 0.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
ALL	SPEEDS	12	13	12	1	18	4	5	1	11	10	1.3	7	13	5				
	(1)	7.36	7.90	7.36	. 61	11.04		3.07	. 61	6.75	8.13	7.98	4.29	7.98		11	27	0	163
	(2)	. 55	. 60	. 55		. 83			.05	. 51	.46	. 60	. 32	. 60	3.07		16.56	.00	100.00
0.0	FT WIND I	ATA		STAP	ILITY	CLASS	c		CLAS	S FREG	UENCY	(PERCE	ENT) =	2 . 68					
	SPEED (MPH)	N	NNE	NE	ENE	×	ESE			RECTIC									
					BATE.		808	SE	SSE	S	SSW	SIN	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
	(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	. 00	.00	.00	.00	20	.00	.00

CALM	0	0	0	0	0	0	0	0	0	0		0	0						
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00			0	0	0	0	0	
(2)	. 00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00		.00	.00	.00	20	.00	.00	
										.00	.00	.00	.00	.00	.00		.00	.00	
C-3	0	0	0	0	2	0	0	0	0	0	0	0							
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00				0	0	0	0	0	0	
(2)	.00	.00	.00	.00	.00	.00	.00				.00	.00	.00	.00	.00	.00	.00	.00	
					.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
4-7	0	1	2	1	2	1	0	0	0	0	2								
(1)	.00	1.72	3.45	1.72	3.45		.00	.00					3	0	0	0	0	13	
(2)	.00		.09	.05	0.0	0.5	.00	.00			3.45	1.72	5.17	.00	.00	.00	.00	22.41	
				.00		.05	.00	.00	.00	.00	.09	.05	.14	.00	.00	.00	.00	. 60	
8-12	0	0	0	0	1	4	2	0	1	8	3								
(1)	.00	.00	.00	.00	1.72		3.45		1 70		5.17	2	1 70	0	1	0	0	23	
(2)	.00	.00	.00				.09	.00	0.16	40.19	5.11	3.45	1.72	.00	1.72	.00	.00	39.66	
								.00	.05	.31	.14	.09	.05	.00	.05	.00	.00	1.06	
13-10	1	1	1	0	0	0	0	0	1	3	5	0	0	0					
(1)	1.72	1.72	1.72	.00	.00	.00	.00		1.72		8.62	.00			0	0	0	12	
(2)	.05	.05	.05	.00	.00	.00	.00				.23		.00	.00	.00	.00	.00	20.69	
									.05	. 7.4	.23	.00	.00	.00	.00	.00	.00	. 55	
19-24	0	0	0	0	0	0	0	0	4	1	0	0							
(1)	.00	.00	.00	.00	.00	.00	.00		6.90				0	2	0	3	0	10	
(2)	.00	.00	.0-	.00	.00	.00	.00	.00				.00		3.45	.00	5.17	.00	17.24	
							.00	.00	. 10	.05	.00	.00	.00	.09	.00	.14	.00	. 46	
GT 24	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
(1)	.00	.00	.00	.00	.00	.00	.00	.00				.00			0	0	0	0	
(2)	.00	.00	.00	.00	.00	.00	.00	.00					.00	.00	.00	.00	.00	.00	
								.00	.00	.0.)	.00	.00	.00	00	.00	.00	.00	.00	
ALL SPEED"	1	2	3	1	3	5	2	0	6	1?	10	3							
(1)	1.72	3.45	5.17	1.72			3.45	0.0	10 34	20 40	17.24		4	2	1	3	0	58	
(2)			.14					.00	20.34	20.09	41.24	5.17			1.72	5.17	.00	100.00	
							.00	.00	. 2.8	. 55	. 46	.14	.18	.09	.05	.14	.00	2.68	

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	20.0 #7 1						LASS C	W	TND DI	RECTT	DE FROM	JENCY (P.R.M. RN	(T) =	3.04				
5	PRED (MPH)	ы	NNE	NR	ENE	8	RSE	SE	SSE	5	5.SW	SW	WSW	W	WNW	MM	NNW	VRBL	TOTAL
	CALM	0	0	0	0	0	0	0	0	0	0	0							
	(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	0	0	0	0	0	0
	(2)	.00	.00	.00	.00	.00	.00	.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				
	(1)	.00	.00	.00	.00	.00	. 00	.00	.00	.00	.00	.00	.00	.00	.00	0 02.	0	0	0
	13;	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
																.00	.00	.00	. 00
	4-7	0	2	2	0	0	0	0	0	0	0	U	0	3	0	2			
	(1)	.00	3.03	3.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	4.55	.00	3.03	1.52	0.00	10
	(2)	.00	.09	.09	.00	.00	.00	.00	.00	.00	. 20	.00	.00	.14	.00	.09	.05	.00	15.15
																		00	
	8-12	0	4	2	2	1	4	3	2	1	5	2	0	3	0	0	0	0	27
	(1)	.00	6.06	3 03	3.03	1.52	6.06	4.55	3.03	1.52	7.58	3.03	.00	1.52	.00	.00	.00	.00	40.91
	(2)	.00	.10	.09	.09	.05	.18	.14	.09	.05	.23	.09	.00	.05	.00	.00	.00	.00	1.25
																			4.50
	13-18	1	2	0	1	0	1	0	0	3	6	8	2	1	1	0	0	0	26
	(1)	1.52	3.03	70	1.52	.00	1.52	.00	.00	4.55	9.09	12.12	3.03	1.52	1.52	.00	.00	.00	39.39
	(2)	.05	.09	. 00	.05	.00	.05	.00	.00	.14	.28	. 37	. (9	.05	.05	.00	.00	.00	1.20
	19-24	0																	
	(1)		0	0	0	0	0	0	0	2	1	ę	0	0	0	0	0	0	3
	(2)	.00	.00	.00	.00	.00	.00	.00	.00	3.03	1.52	.00	.00	.00	.00	.00	.00	.00	4.55
	(*)	.00	.00	.00	.00	.00	.00	.00	.00	.09	.05	. 60	.00	.00	.00	.00	.00	. 00	.14
	GT 24	0	0	0	0														
	(1)	.00	.00	.00	.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
				.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
LL	SPEEDS	1	0	4	3	1	5												
	(1)	1.52	12 12	6.06	4.55	1.52	7.58	4.55	2 02	6	12	10	2	5	1	2	1	U	66
	(2)	.05	.37	.18	.14	.05	.23		3.03			15.15	3.03	7.58	1.52	3.03	1.52	.00	100.00
			1.41			.0:	.23	.14	.09	. 28	. 55	.46	.09	23	.05	.09	.05	.00	3.04

FILGRIM JUL97-SEP97 MET DATA JOINT FREQUENCY DISTRIBUTION (220-FOOT TOWER)

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Z.

220.0 FT WIND	ATA		STAP	ILITY	CLASS	D					(PERCE	m (TWI	24.12					
SPEED (MPH) N	NNE	NE						RECTI									
o a man. (res ri		teres?	NE	8.	R	ESE	SE	SSE	5	SSW	SW	WSW	W	WINH	NW	MM	VRBL	TOTAL
CALM	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				0	0
(2)	.00	.00	.04	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00.
C-3	0	2	1	1	2													
(1)	.00	. 38	.19	.19		1	0	0	1	1	2	1	2	0	1	0	0	15
(2)	.00	.09	.05	.05		.19	.00	.00	.19	.19	. 38	.19	. 38	.00	.19	.00	.00	2.87
(*)	.00	.05	.05	.05	.09	.05	.00	.00	.05	.05	.09	.05	.09	.00	.05	.00	.00	. 69
4-7	2	2	9	8	4	7	2	2	4	4	2	3	6	4	3	7		69
(1)	.30	. 38	1.72	1.53	.76	1.34	. 38	. 38	.76	.76	. 38	. 57	1.15	.76			0	
(2)	.09	.09	. 42	. 37	.18	. 32	.09	.09	.18		.09	.14	.28	.18	. 57	1.34	.00	13.19
8-12	3	21	13	9														0.20
(1)	. 57	4.02				10	7	6	12	25	10	4	5	5	4	5	0	145
(2)	.14	.97		1.72			1.34		2.29		1.91	.76	. 96	.96	.76	.96	.00	27.72
(*)		. 91	. 60	. 42	.28	. 46	. 32	.28	. 55	1.15	.46	.18	.23	.23	.18	.23	.00	6.69
13-18	5	14	8	12	8	1	3	3	35	44	41	10	4	6	5	5		
(1)	. 96	2.69	1.53	2.29	1.53	1.53	. 57	. 57		8.41		1.91	.76				0	211
(2)	.23	. 65	. 37	. 55		. 37	.14		1.61			. 46	.18	1.15	.96	.96	.00	40.34 9.73
19-24	7	4	6	0	2	0												4.15
(1)	1.34	.76	1.15	.00	. 38	.00		0	7	15	7	1	1	2	5	3	0	60
(2)	. 32	.18	.28	.00			.00	.00	1.34			.19	.19	. 39	.96	. 57	.00	11.47
(=)			. 20	.00	.09	.00	.00	.00	. 32	. 69	. 32	.05	.05	.09	.23	.14	.00	2.77
GT 24	5	7	0	0	0	3	0	0	0	2	1	0	1	2	2	c		
(1)	. 55		.00	.00	.00	. 57	.00	.00	.00	. 38	.19	.00	. 19	. 38	. 38		0	23
(2)	.23	. 32	.00	.00	.00	.14	.00	.00	.00	.09		.00	.05	. 09	. 09	.00	.00	4.40
ALL SPEEDS	22	50	37	30	-2	29	10											4.00
(1)	4.21	9.56	7.07	5.74			12	11	59			19	19	19	20	20	0	523
(2)	1.01	2.31					2.29	2.10	11.28	17.40	12.05	3.63	3.63	3.63	3.82	3.82	.00	100.00
(~)		E. 31	4.14	2.36	1.01	1.34	. 55	. 51	2.72	4.20	2.91	. 88	. 80	. 88	. 92	. 92	.00	24.12

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

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220.0 FT W				STABI	LITY (LASS B		TIND DI				(PERCENT)	-	38.10				
SPEED (MPH)	N	NNE	NE	ENE	E	ESR	SE	SSE	8	SSW	SW	WSW	W	WEIW	MM	NDW	VRBL	TOTAL
CALM	0	0	0	0	0	0	6	0	1	0	0	0	0	0	3	0	0	1
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.12	.00	.00	.00	.00	.00	.00	.00	.00	.12
(2)	.00	00	.00	.00	.00	.00	.00	.00	.05	.00			.00		.00	.00	.00	.05
C-3	0	0	2	0	2	3	0	0	0	1	2	1	0	0	0	0	0	11
(1)	.00	.00	.24	.00	.24	.36	.00	.00	. 00	.12			.00		.00	.00	.00	1.33
(2)	.00	.00	.09	00	.09	.14	.00	.00	.00	.05			.00		.00	.00	.00	.51
4-7	0	1	4	4	14	11	12	2	3	3	9	5	2	8	5	5	0	89
(1)	.00	.12	. 48	. 48	1.69	1.33	1.45	.24	.36	.36	1.09		.24		. 61	. 61	.00	10.65
(2)	.00	.05	.18	.18	. 65	. 51	. 55	.09	.14	.14			.09		.23	.23	.00	4.06
8-12	1	6	2	3	5	9	20	14	12	25	20	21	7	14	10	9	0	178
(1)	.12	.73		. 36	. 61	1.09	2.42	1.69	1.45	3.03	2.42		.85		1.21	1.09	.00	21.55
(2)	. 05	.28	.09	.14	.23	. 42	. 92	. 65	. 55	1.15	. 92		. 32	. 65	. 46	. 42	.00	8.21
13-18	3	3	2	2	0	1	14	15	46	129	67	53	16	10	15	5	0	382
(1)	. 36	.36	.24	.24	.00	.12	1.69	1.82	5.57	15.62	8.11		94		1.82	.73	.00	46.25
(2)	.14	.14	.09	.09	.00	.05	. 65	. 69	2.12	5.95			.74		. 69	.28	.00	17.62
19-24	0	1	0	3	1	9	1	5	8	58	22	5	1	5	17	7	0	139
(1)	.00	.12	.00	. 00	.12	. 97	.12	. 61	. 91	7.02	2.66		.12		2.06	. 85	.00	16.83
(2)	.00	.05	.00	.00	.05	. 37	.05	.23	. 37	2.68	1.01		.05		.78	. 32	.00	6.41
GT 24	4	0	0	0	2	8	1	0	0	1	0	1	0	1	8	1	0	27
(1)	. 48	.00	.00	.00	.24	. 97	.12	.00	.00	.12	.00		.00		. 97	.12	.00	3.27
(2)	. 10	.00	.00	.00	.09	. 37	.05	.00	.00	.05	.00		.00		.37	.05	.00	1.25
ALL SPREDS	8	11	10	9	24	40	48	36	70	217	120	86	26	38	55	28	0	826
(1)	. 97	1.33		3.09	2.91	4.84	5.01					10.41 3	1.15	4.60	6.56	3.39	.00	100.00
(2)	. 37	. 51	.46	. 42	1.11	1.05	2.21			10.01			20	1.75	2.54	1.29	.00	38.10

FILGRIM JUL97-SEP97 MET DATA JOINT FREQUENCY DISTRIBUTION (220-FOOT TOWER)

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220.0	FT WIND D.	ATA		STAR	ILITY	CLASS	F				QUENCY		= (T)	18.40	,				
	SPEED (MPH)	N	NNE	NB	ENE	E	RSE	SH	SSE	S			WSW	W	WINW	MM	NNW	VRRL	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	.06	.00	.00	. 00	.00	.00	.00	.00	.00	.00	.00	.00
	C-3	n	0	0	0	1	1	1	0	1	1	1	0	0	0	0	0	0	6
	(1)	.00	.00	.00	.00	.25	.25	.25	.00	.25	.25	.25	.00	.00	.00	.00	.00	.05	1.50
	(2)	.00	.00	.00	.00	.05	.05	.05	.00	.05	.05	.05	.00	.00	.00	.00	.00	.00	.28
	4-7	Q	1	2	5	4	16	7	2	5	5	2	3	3	3	3	0	0	61
	(1)	.00	.25	. 50	1.25	1.00	4.01	1.75	.50	1.25	1.25	. 50	.75		.75	.75	.00	.00	15.29
	(2)	.00	.05	.09	.23	.19	. 74	. 32	.09	.23	.23	.09	.14		.14	.14	.00	.00	2.81
	8-12	0	0	0	3	5	14	11	10	9	9	9	0	14	11	7	4	0	113
	(1)	.00	.00	.00	.75	1.25	3.51	2.76	2.51	2.01	2.26	2.26	2.01	3.51	2.76	1.75	1.00	.00	28.32
	(2)	.00	.00	.00	.14	.23	. 65	. 51	.46	. 37	. 42	. 42	. 37	. 65	. 51	. 32	.18	.00	5.21
	13-10	0	1	0	0	1	1	2	1	4	18	43	36	24	13	7	1	0	152
	(1)	.00	.25	.00	.00	.25	.25	. 50	.25	1.00	4.51	10.78	9.02	6.02	3.26	1.75	.25	.00	30.10
	(2)	.00	.05	00	.00	.05	.05	.09	.05	.18	.83	1.98	1.66	1.11	. 60	. 32	.05	.00	7.01
	19-24	0	0	0	0	0	0	0	0	0	13	44	0	4	0	0	5	0	66
	(1)	. 00	.00	.00	.00	.00	.00	.00		.00	3.26	11.03	.00	1.00	.00	.00	1.25	.00	16.54
	(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	. 60	2.03	.00	.18	.00	.00	.23	.00	3.04
	Ø7 24	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
	(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.25	.00	.00	.00	0	.25
	(2)	.00	.00	.0"	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.00	.00	.00	.00	.05
ALL	SPEEDS	0	2	2	8	11	32	21	13	18	46	99	47	46	27	17	10	6	399
	(1)	.00	. 50	. 50	2.01	2.76	8.02	5.26	3.26		11.53				6.77	4.26	2.51	.00	100.00
	(2)	.00	.09	.09	. 37	. 51	1.48	. 97	. 60		2.12				1.25	. 78	.46	.00	18.40

(1) = FERCENT 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)

220	O FT W	IND D	ATA		STAB	LITY O	LASS C			CLASS	FREQU	ENCY (PERCEN	PT) -1	6.13				
					_				THE DI	RECTIO									
DPER	ED (MPH)	ы	HNE	NE	ENE	E	ESE	58	SSR	\$	SSW	SW	WSW	W	WNW	NW	NNW	VRBL	TOTAL
(MIAS	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	
	(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00		.00
																.00	.00	.00	.00
	C-3	0	1	1	0	2	1	1	3	0	0	0	1		0				
	(1)	.00	.75	.75	.00	1.50	.75	.75	.75	.00	.00	.00	.75	.75	.00	1	0	0	10
	(*)	.00	.05	.05	.00		.05	.05	.05	.00	.00	.00	.05	.05	.00	.75	.00	.00	7.52
													.05	. 05	.00	.05	.00	.00	. 46
	*-7	0	0	1	4	11	0	1	2		1	2	0	7					
	(1)	.00	.00	.75	3.01		.00	.75	1.50	.75	.75	1.50			3	0	2	0	35
	(2)	.00	.00	.05	.18	. 51	.00	.05	.09	.05	.05	.09	.00	5.26	2.26	.00	1.50	.00	26.32
											. 05	.03	.00	. 32	.14	. 00	.09	.00	1.61
1	-12	0	0	0	0		10	0	0	0	0	1							
	(1)	.00	.00	.00	.00		7.52	.00	.00	.00	.00	.75		11	5		0	0	42
	(2)	.00	.00	.00	.00		. 16	.00	.00	.00	.00	. 05	3.76		3.76	1.50	.00	.00	31.50
											.00	.05	.23	. 51	.23	.09	.00	.00	1.94
13	3-18	0	0	0	1	5	0	0	0	0	1								
	(1)	.00	.00	.00	.75		.00	.00	.00	.00	.75	3	5	16	11	0	0	0	42
	(2)	.00	.00	.00	.05		.00	.00	.00	.00	.05	2.26		12.03	8.27	.00	.00	.00	31.58
										.00	.05	.14	.23	.74	. 51	.00	.00	.00	1.94
11	9-24	0	0	0	0	0	0	0	0	0	0								
	(1)	.00	.00	.00	.00		.00	.00	.00	.00	.00	2	0	2	0	0	0	0	4
	(2)	.00		.00	.00		.00	.00	.00	.00	.00	1.50	.00	1.50	.00	.00	.00	.00	3.01
									.00	.00	.00	.09	.00	.09	.00	.00	.00	.00	.18
G1	24	0	0	0	0	0	0	0	0	6									
	(1)	.00	.00	.00	.00		.00	.00	.00	.00	0	0	0	0	0	0	0	0	0
	(2)	.00	.00	.00	.00		.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
								.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
ALL SPI	REDS	0	1	2	5	26	11	2	2	1									
	(1)	.00	75	1.50		19.55	8.27	1.50		.75	1.50	8	11		19	3	2	0	133
	(2)	.00	.03	.09		1.20	. 51	.09	.14			6.02		2 1.82		2.26	1.50	.00	100.00
						4.20		.09	. 7.4	.05	.09	. 37	. 51	1.72	. 88	.14	.09	.00	6.13

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FILGRIM JUL97-SEP97 1	MET DA	TA JOINT	FREQUENCY	DISTRIBUTION	(220-FOOT TOWER)
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 G

.0 FT WIND	DATA		STAP	ILITY	CASS	ALL					(PERCE	NT) =	100.00					
SPRED (MPH								IND DI	RECTIC	IN FROM	1							
STARD (NC)	I) N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WRW	NW	NNW	VRBL	TOTA
CALM	0	0	0	0	0	0	0	0	1	0	0	0	0	0				
(1)	.00	.00	.00	.00	.00	.00	.00	.00	15	.00	.00	.00	.00		C	0	0	
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.05	.00	.00	.00	.00	.00	.00.	.00	.00.	.0
C-3	0	3	4	1	7	6	2	1	2	3								
(1)	.00	.14	.19	.05	. 32	.28	.09	.05			5	3	3	0	2	0	0	4
(2)	.00	.14	.18	.05	. 32	.28	.09	.05	.09	.14	.23	.14	.14	.00.	.09	.00	.00	1.9
4-7	3	12	21	22	37	35	22	8	13	13								
(1)	.14	. 55		1.01		1 61	1.01	. 37	. €0	. 60	18	15	27	18	14	2.0	0	29
(2)	.14	. 55	. 97	1.01		1.61	1.01	.37	. 60	. 60	83	. 69	1.25	.83	. 65	. 92	.00.	13.7
8-12	Ą	37	20	18	42													
(1)		1.71	. 92	.83		54	26	33	34		18	44	45	37	29	28	0	59
(2)			.92	.83	2.94	2.49	2.12	1.52				2.03	2.08	1.71	1.34	1.29	.00	27.5
(*)		a. /a	. 94	.03	7.24	2.49	2.12	1.52	1.57	3.41	2.21	2.03	2.08	1.71	1.34	1.29	.00	27.
13-18	17	23	19	16	14	12	21	19	95	207	176	106						
(1)	. 78	1.06	. 88	.74	. 65	. 55	. 97	. 88		9.55		4.89	65	42	27	19	0	87
(2)	8	1.06	. 88	.74	. 65	.55	. 97	. 88			8.12		3.00	1.94	1.25	. 88	.00	40.5
19-24	7	5	6	0	3			·										
(1)	. 32	.23	.29	.00	.14	8	1	15	26		75	6	8	11	27	23	0	3(
(2)	. 32	.23	.29	.00	.14	. 37	.05	.23		4.15		.28	. 37	. 51	1.25	1.06	.00	13.8
					. 2.4	.31	.05	.23	1.20	4.15	3.46	.28	. 37	. 51	1.25	1.06	.00	13.8
GT 24	9	7	0	0	2	11	1	0	0	3	1				10			
(1)	. 42	. 32	.00	.00	.09	. 51	.05	.00	20	.14	.05	.05	.09	3	10	1	0	
(2)	. 42	. 32	.00	.00	.09	. 51	.05	.00	.00	.14	.05	.05	.09	.14	. 46	.05	.00	2.1
AL SPEEDS	44	87	70	57	105	126	93	66										
(1)		4.01	3.23					3.04	171		323	175	150	111	109	91	0	210
(2)				2 63	4 64	5.61	4.29	3.04	7.89	17.99	14.90	8.07	6.92	5.12	5.03	4.20	.00	100.0
				6.93	4.04	0.01	4.29	3.04	7.89	17.99	14.90	8.07	6.92	5.12	5.03	4.20	.00	100.

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20.0 FT	n mD D	ATA		STABI	LITY C	A SEAL			CLASS RFCTION	FREQUE	ENCY (PERCEN	TT) =	6.36				
PEED (MPH) N	NNE	NE	ENE		ESE	SE	SSE			-							
				Barr B	•	aca.	52	558	\$	S SW	SW	WSW	W	VINW	NW	MAM	VRBL	TOTA
CALM	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	
(1)	.00	.00	.00	.00	0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	. 0
(2)	.00	.00	.00	.00	.00	. 00	.00	.00	.00	.00	. 00	.00	.00	.00	.00	.00	.00	. 0
C-3	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
(1)	.00	.00	.00	.00	.00	. 00	.60	.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	.0
4-7	0	6	3	1	1	0	0	0	0	0	0	1	1	0	3	0		
(1)	.00	4.48	2.24	.75	.75	.00	.00	.00	.00	.00	.00	.75	.75	.00	2 14	.00	0	
(2;	.00	. 28	.14	.05	.05	.00	.00	.00	.00	.00	.00	.05	.05	.00	.14	.00	.00	11.5
8-12	5	5	7	1	0	4	2	0	1	0	0	1	11	13	4	5	0	
(1)	3.73	3.73	5.22	.75	.00	2.99	1.49	.00	.75	.00	.00	.75	8.21	9.70	2.99	3.73	.00	44.
(2)	.24	.24	. 33	.05	.00	.19	.09	.00	.05	.00	.00	.05	. 52	. 62	.19	.24	.00	2.1
13-19	2	0	2	0	9	4	6	0	1	0	0	2	4	4	7	7	0	
(1)	1.49	.00	1.49	.00	.00	2.99	4.48	.00	.75	.00	.00	1.49	2.99	2.99	5.22	5.22	.00	29.
(2)	.09	.00	.09	.00	.00	.19	.28	.00	.05	.00	.00	.09	.19	.19	. 33	. 33	.00	1.
19-24	2	0	0	0	1	0	0	0	0	0	0	0	4	4		5	0	
(1)	1.49	.00	.00	.00	.75	.00	.00	.00	.00	.00	.00	.00	2.99	2.99	. 75	3.73	.00	12.
(2)	.09	.00	.00	.00	.05	.00	.00	.00	.00	.00	.00	00	.19	.19	.05	.24	.00	
ST 24	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.75	1.49		.00	.00	
(2)	.00	.00	.00	.00	.00	.00	.00	. 00	.00	.00	.00	.00	.05	.09	.00	.00	.00	2.
SPEEDS	9	11	12	2	2	8	8	0	2	0	0	4	21	23	15	17	0	
(1)	6.72	8.21	8.96	1.49	1.49	5.97	5.97	.00	1.49	.00	.00							1
(2)	. 43	. 52	. 57	.09	.09	. 36	. 38	.00	.09	.00	.00		1.00	1.09		.81	.00	100.

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PILGRIM OCT97-DEC97 MET DATA JOINT FREQUENCY DISTRIBUTION (220-FOST TOWER)

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O FT WIND D	ATA		UTAB	ILITY	CLASS	8		CLAS	S FREQ	UENCY	(FIRCE	(TTM	3.35	,				
							W	IND DI	RECTIO	H FROM	10		0.00					
SPRED (MPH)	ы	NNE	NE	ENE	R	ESE	SE	ESE	s	SSW	SW	WSW	W	WINK	NW	NNW	VRBL	ATOT
CALM	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			0	0	0	0	
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	. 0
													.00	.00	.00	.00	.00	. 0
C-3	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		0	
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.60	.00	.00	.00	.00	.00	. 0
													.00	.00	.00	.00	.00	. 0
4-7	0	1	0	1	0	0	0	0	0	0	0	1	1	1	0		0	
(1)	.00		.00	1.43	.00	.00	.00	.00	.00	.00	.00		1.43		.00	1.43	.00	8.5
(2)	.00	.05	.00	.05	.00	.00	.00	.00	.00	.0.	.00	.05		.05	.00	.05	.00	e.o
											1.1					.05	.00	
8-12	0	1	1	0	2	2	0	0	0	1	2	4	1	1	0	0	0	1
(1)	.00		1.43	.00	2.86	2.86	.00	.00	.00	1.43	2.86	5.71	1.43	1.43	.00	.00	.00	21.4
(2)	.00	.05	.05	.00	.09	.09	.00	.00	.00	.05	.09	.19			.00	.00	00	.7
13-19	0	0	1	0	0	0	2	0	2	0	0	5	4	4	1	1	0	2
(1)	.00	.00	1.43	.00	.00	.00	2.86	.00	2.86	.00	.00	7.14	5.71	5.71	1.43	1.43	.00	28.5
(2)	.00	.00	.05	.00	.00	.00	.09	.00	.09	.00	.00				.05	.05	.00	.9
10.24																		
19-24 (1)	0	6	1	0	0	0	2	0	0	0	0	0	2	4	2	1	0	1
	.00		1.43	.00	.00	.00	2.86	.00	. 0:0	.00	.00	.00	2.86	5.71	2.86	1.43	.00	25.7
(2)	.00	. 29	.05	.00	.00	.00	.09	.00	.00	.00	.00	.00	.09	.19	.09	.05	.00	. 8
GT 24	1	1	1	0	0	0												
(1)	1 43	1.43		.00	.00	.00	0	0	0	0	0	0	1	5	2	1	0	1
(2)	.05		. 05	0		.00	.00	.00	.00	.00	0				1.43	1.43	.00	15.7
					.00	.00	.00	.00	.00	.00	.00	.00	.05	.24	.05	.05	.00	. 5
L SPEEDS	1	9	4	1	2	2	4	0	2									
(1)	1.43	12.86				2.86	5.71	.00	2.86	1 11	2	10			4	4	0	1
(2)		.43	.19	.05		.09	.19	.00				14.29			5.71	5.71	.00	100.0

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	220.0 17 1	TIND I	ATAG		STABI	LITY C	LASS C			CLASS	PREQU	BNCY	(PERCEN	= (T					
	SPEED (MPH)					-				RECTION									
	SPRED (MPR)	N	LINE	NE	ENE	E	ESE	SE	SSE	s	SSW	SW	WSW	W	WIN	NW	NNW	VRBL	TOTAL
	CALM	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	0.0	.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			
	(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00		0	0	0
	(2)	. 00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	4-7	0	0	1	1	2	1	0	0	0	0	1	2	2	0	4			
	(1)	.00	.00	. 98	. 98	1.96	. 98	.00	.00	.00	.00	. 98	1.96	1.96	.00	3.92	1	0	15
	(2)	.00	.00	.05	.05	.09	.05	.00	.00	.00	.00	.05	.09	.09	.00	.19	. 98	.00	14.71 .71
	0-12	1	0	0	1	1	0	0	1	1	0	1	9	4	1	1	0	0	21
	(1)	. 98	.00	.00	. 90	. 98	.00	.00	. 98	. 98	.0%	. 98	8.82	3.92	. 98	. 90	.00	.00	20.59
	(2)	.05	.00	.00	.05	.05	.00	.00	.05	.05	.00	.05		.19	.05	.05	.00	.00	1.00
	13-18	0	3	υ	0	0	1	2	0	1	1	5	12	6	2	4	1		20
	(1)	.00	2.94	.00	.00	.00	. 98	1.96	.00	. 98	. 98		11.76	5.63	1.96	3.92	. 98	0	38
	(2)	.00	.14	.00	.00	.00	.05	.09	.00	.05	.05	.24		.28	.09	.19	.05	.00	37.25
	19-24	2	3	1	1	0	0	0	0	C	0	0	0	5	1	0			
	(1)	1.96	2.94	. 98	. 98	.00	.00	.00	.00	.00	.00	.00		4.90	. 98		1	0	14
	(2)	.09	. 14	.05	.05	.06	.00	.00	.00	.00	.00	.00		.24	. 05	.00	. 98	.00	13.73
	GT 24	0	6	1	1	0	0	0	0	0	0	0	2	1	3	0	0	0	
	(1)	.00	5.88	. 98	. 98	.00	.00	.00	.00	.00	.00	.00		. 98	2.94	.00			14
	(2)	.00	. 28	.05	.05	.00	.00	.00	.00	.00	.00	.00		.05	.14	.00	.00	.00	13.73
15	SPEEDS	3	12	3	4	3	2	2	1	2	1	7	25	18	7				
	(1)	2.94	11.76	2.94	3.92	2.94	1.96	1.95	. 98	1.96	. 98		24.51		6.86	9	3	0	102
	(2)	. 14	. 57	.14	.19	.14	.09	.09	.05	.09	.05		1.19	.85	. 33	8.32	2.94	.00	100.00

FILGRIM OCT97-DEC97 MET DATA JOINT FREQUENCY DISTRIBUTION (220-FOOT TOWER)

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0 FT WIND I	ATA		STAB	ILITY	CLASS	D		CLAS	S FREQ RECTIO	URNCY	(PERCI	ENT) =	32.9	2				
SPEED (MPH)	N	NNE	NE	ENE	в	ESE		SSE										
				ALC: N	•	BOB	55	SSE	5	SSW	SW	Mac	-4	WNW	NW		JABI.	TOTAL
CALM	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		
(2)	.00	.00	.00	. 00	.00	.00	.00	.00	.00	.00	.00	.00	.00		.00	.00	.00	. 00
C-3	0	0	3	0	1	3	0		0	1	0	0	0					
(1)	.00	.06	. 43	.00		. 43	.00	.00	.00	.14				0	2	0	0	10
(2)	.00	.00	.14	.00		.14	.00	.00	.00	.05	.00		.00		.29	.00	.00	1.44
							.00	.00	.00	.05	.00	.00	.00	.00	.09	.00	.00	. 4'
4-7	1	4	1	5	3	3	5	1	5	4	5	7	5	3	3	1	0	5
(1)	. 2.4	. 58	.14	.72		. 43	.72	.14	.72	. 59	.72	1.01	.72		. 43	.14	0	8.0
(2)	.05	.19	.05	.24	.14	.14	.24	.05	.24	.19	.24		.24		.14	.05	.00	2.6
8-12	3	3	0	5	9	3	2	5	1	8	10	24	9					
(1)	. 43	. 43	.00	.72	1.30		.29	.72							7	3	0	10
(2)	.14	.14	.00		. 43	.14	.09	.24	.05	. 38					1.01	. 43	.00	15.5
									.05	. 38		1.14	. 43	.76	. 33	.14	.00	5.1
13-18	7	8	5	5	5	12	5	3	8	11	12	27	24	10	11	5	c	15
(1)		1.15	.72	.72	.72	1.73	.72	. 43	1.15						1.59	.72		
(2)	. 33	. 38	. 24	. 24	.24	. 57	.24		. 38		. 57	1.28	1.14		.52	.24	.00	22.7
19-24	7	21	13	10	3	9	1	0	2	3								
(1)	1.01	3.03	1.87	1.44		1.30	.14	.00	.29		8	15			21	6	0	15
(2)		1.00	. 62	. 47		.43	.05	.00	.09	. 43		2.16			3.03	. 86	.00	22.3
							.05	.00	.09	.14	. 38	. 71	. 81	. 90	1.00	.28	.00	7.3
GT 24		26	27	11		2	3	0	0	6	1	4	18	57	16	7	0	
(1)				1.59	1.44	.29	. 43	.00	.00	.86	.14			8.21	2.31	1.01		20
(2)	. 20	1.23	1.28	. 52	. 47	.09	.14	.00	.00	.28	.05	.19			.76	. 33	.00	29.8
L SPEEDS	37	62	49	36	31	32												
(1)			7 06	4 10	4 47	A	16	9	16	33	36	77	73	105	60	22	0	69
(2)	1.76	2 94	0 90	3.24	1.47	4.01	2.31	1.30	2.31	4.76	5.19	11.10	10.52	15.13	8.65	3.17	.00	100.0
(~)		a. 39	6.32	4.73	1.47	1.52	.76	. 43	.76	1.57	1.71	3.65	3.46	4.98	2.85	1.04	.00	32.9

(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)

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2	20.0 FT W	IND DJ	ATA		STABI	LITY C	LASS E		IND DI	CLASS	PREQU	ENCY	FERCEN	• (T	36.72				
8	PEED (MPH)	Ħ	NNE	NE	ENE	В	RSE	SE	SSE	S	SSW	SW	WSW	W	WERV	NW	NNW	VERL	TOTAL
	CALM	0	0	0															ivino
	(1)	.00	.00	.00	0	0	0	0	0	0	0	0	0	1	*	0	0	0	1
	(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.13	.00	.00	.00	10	.13
	(*)		.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.00	.00	.00	0	.05
	C-3	٢	0	1	2		3	0	0	3	1	0	1	3	2	0	0	U	20
	(1)	.00	.00	.13	.26	. 52	.39	.00	.00	. 39	.13	.00	.13	. 39	.26	.00	.00	.00	
	(2)	.00	.00	.05	.09	.19	.14	.05	.00	.14	.05	.00	.05	.14	.09	.00	.00	.00	2.58
	4-7	1	2	2	1	5	5	8	3										
	(1)	.13	.26	.26	.13	. 65	. 65	1.03		4	3	2	8	5	5	5	1	0	60
	(2)	.05	.09	.09	.05	.24	.24	. 38	. 39	. 52	. 39	.26	1.03	. 65	. 65	. 65	.13	.00	7.75
					.05			. 38	.14	.19	.14	.09	. 39	.24	. 24	. 4	.05	.00	2.85
	8-12	0	3	3	8	6	13	15	3	6	16	10	28	15	29	17	5	0	175
	(1)	.00	. 39	. 39	. 78	. 78	1.68	1.94	. 39	.78	2.07	1.29	3.62	1.94		2.20	. 65	.00	22.61
	(*)	.00	.14	.14	.28	.28	. 62	. 71	.14	.28	.76	. 47	1.33	. 71	1.38	. 81	.24	.00	8.30
	13-1.0	3	1	3	3	2	7	28	15	17	17	34	55	49	42				
	(1)	. 39	.13	. 39	. 39	.26	. 90	3.62	1.94	2.20	2.20	4.33		6.33	42 5.43	38	5	0	319
	(2)	.14	.05	.14	.14	.09	. 13	1.33	.71	.81	. 81	1.61		2.32		4.91	. 65	.00	41.21
													£ . 01	6.36	7.93	1.80	.29	.00	15.13
	19-24	0	1	0	0	0	3	9	4	4	19	22	26	17	22	7	8		
	(1)	.00	.13	.00	.00	.00	.39	1.16	. 52	. 52	2.45	2.84		2.20	2.84	. 90	1.03	0	142
	(2)	.00	.05	.00	.00	.00	.14	. 43	.19	.19	. 90	1.04		.81		. 33	.38	.00	18.35 6.74
	GT 24																		
		3	0	2	2	16	6	4	0	1	1	0	1	3	16	1	1	0	57
	(1)	.39	.00	.26	.26	2.07	. 78	. 52	.00	.13	.13	.00	.13	. 39	2.07	.13	.13	.00	7.36
	(2)	.14	.00	.09	.09	.76	.28	.19	.00	.05	.05	.00	.05	.14	.76	.05	.05	.00	2.70
ALL	SPEEDS	7	7	11	14	33	37	64	25	35	57	68	119	93	116	68	20		
	(1)	. 90	. 90	1.42	1.81	4.26	4.78	8.27	3.23	4.52	7.36				14.99	8.79		0	774
	(2)	. 33	. 33	. 12	. 66	1.57	1.76	3.04	1.19	1.66	2.70	3.23	5.65	4.41	5.50	3.23	2.58	.00	100.00 36.72

FILGRIM OCT97-DEC97 ME" DATA JOINT FREQUENCY DISTRIBUTION (220-FOOT TOWER)

5. 50 -

0 FT WIND D	ATA		STAP	ILITY	CLASS	F						ENT) =	13.57					
							W	TIND DI	RECTIO	N PRON	4							
SPEED (MPH)	ы	NNE	NR	ENE	E	ESE	SE	SSE	s	3.59	SW	WSW	W	WNW	NW	NNW	VRBL.	TOTA
CALM	0	J	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				
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.0
C-3	0	0	0	0	1	1	0	1	0	1	0							
(1)	.00	.00	.00	.00	.35	. 35	.00	. 25				0	2	0	0	0	0	
(2)	.00	.00	.00	.00	.05	.05	.00	.05	.00	. 35	.00	.00	.70	.00	.00	.00	.00	2.1
					.05	.05	.00	.05	.00	.05	.00	.00	.09	.00	.00	.00	.00	. 2
4-7	0	1	1	з	2	4	11	1	1	1	7	4	5	4	1	3	0	4
(1)	.00	. 35	. 35	1.05	.70	1.40	3.85	. 35	.35	.35	2.45	1.40	1.75	1.40	.35	1.05	.00	17.1
(2)	.00	.05	.05	.14	.09	.19	. 52	.05	.05	.05	. 33	.19	.24	.19	.05	.14	.00	2.3
0-12	0	0	0	0	1	4	4	8	4	5	13	17	7					
(1)	.00	.00	.00	.00	. 35	1.40	1.40	2.80	1.40					11	12	5	0	9
(2)	.00	.00	.00	.00	.05	.19	.1.9	. 38	.19					3.85	4.20	1.75	.00	31.8
							. 2.9	. 30	.19	.24	. €2	. 81	. 33	. 52	. 57	.24	.00	4.3
13-18	0	0	0	0	0	1	7	11	4	7	11	28	25	4		2		
(1)	.00	.00	.00	.00	.00	.35	2.45		1.40				8.74				0	10
(2)	.00	.00	.00	.00	.00	.05	. 33	. 52	.19	.33	. 52		1.19	.19	1.40	.70	.00	36.3
19-24	0	0	0	0	0	0	0	1										
(1)	.00	.00	.00	.00	.00	.00			0	0	11	4	5	7	1	1	0	2
(2)	.00	.00	.00	.00	.00	.00	.00	.35	.00	.00	3.85			2.45	. 35	. 35	.00	9.7
(-7				.00	.00	.00	.00	.05	.00	.00	. 52	.19	.14	. 33	.05	.05	.00	1.3
GT 24	0	0	0	0	0	0	0	0	0	1	6	0	0	1	0	0		
(1)	.00	.00	.00	00.	.00	.00	.00	.00	.00	.35	2.10	.00	.00	. 35	.00		0	
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05		.00	.00	.05	.00	.00	.00	2.8
LL SPEEDS	0	1	1	3	4	10	22	22										
(1)	.00	.35	. 35	1.05		3.50			9	15				27	18	11	C	28
(2)	.00	.05	.05				7.65				16.79	18.53	14.69	9.44	6.29	3 85	.00	100.0
(=)		.05	.95	.14	.19	. 47	1.04	1 04	. 43	.71	2.28	2.51	1.99	1.28	.85	. 52	.00	13.5

220.0	PT WI	IND DA	ATA		STABI	LITY C	LASS G		IND DI				PERCEN	• (TR	2.20				
SPERD	(MPH)	N	NNE	NE	ENE								-						
	(1000 11)		ALC: N	P.B.	PUE	8	ESE	SE	SSE	8	SSW	SW	WSW	W	Where	2424	NNW	VRBL	TOTAL
CA		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	c	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
с	- 3	0	0	0	0	0	0	1	1	0	0	0	0						
(1)	.00	.00	.00	.00	.00	.00	2.08	2.08	.00	.00	.00			0	0	c	0	3
(2)	.00	.00	.00	.00	.00	.00	.05	.05	.00	.00	.00	.00	2.08	.00	.00	.00	.00	6.25
4	-7	0	0	0	0	1	0	0	0	0	0	0							
(1)	.00	.00	.00	.00	2.08	.00	.00	.00	.00	.00					0	0	0	5
(2)	.00	.00	.00	.00	.01	.00	.00	.00	.00	.00	.00	2.08	2.08	4.17	.00.	.00	.00	10.42
8-		0	0	0	0	0	0	0	0	2	()	2	5	5	3	0	1	0	19
		.00	.00	.00	.00	.00	.00	.00	00	4.17	.00	4.17	10 42		6.25	.00	2.00	.00	37. 30
(2)	.00	.00	.00	.00	.00	.00	. 00	.00	.09	.00		.24		.14	.00	.05	.00	.85
13-	18	0	0	0	0	0	0	0	0	0	1	1	4	7					
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.08	2.08		14.58	2.08	2.08	0		25
(2)	. 00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.05	.19		.05	.05	.00	.00	31.25
19-	24	0	0	0	0	0	0	0	0	0	0	2	1	0		0			
(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	4.17	2.08		2.08		1	0	5
(2)	.00	.00	.00	. 00	.00	.00	.00	.00	.00	.00	.09			.05	.00	2.08	.00	10.42
TO	24	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0			
(1)	.00	.00	.00	. 00	.00	.00	.00	.00	.00	.00	4.17	.00		.00	.00	0	0	2
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.09			.00	.00	.00	.00	4.17
L SPEE	DS	0	0	0	0	1	0	1	1	2	1	7	11	14					
(1)	.00	.00	.00	.00	2.08	.00	2.08	2.08	4.57				29.17	14 50	2 02	2	0	48
(2)	.00	.00	.00	.00	.05	.00	.05	.05	.09	.05		.52			2.08	4.17	.00	100.00

FILGRIM OCT97-DEC97 MET DATA JOINT FREQUENCY DISTRIBUTION (220-FOOT TOWER)

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5 5.50 -

0 FT WIND			STAB	ILITY	CLASS	ALL			S FREQ			ENT) =	100.00	0				
SPEED (MPH) N	NNE	NB	ENTE	B	ESE	SE	SSE	s	SSW	SW	WSW	w	WENN	1444	NNW	VRBL	TOTA
CALM	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	.05		0	0	0	
(2)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.00	.00.	.00	.00	.0
C-3	0	0	4	2	6	7	1	2	3	3	0							
(.*.)	.00	.00	.19	.09	.29	. 33	.05	.09	.14			1	6		2	0	0	1
(2)	.00	.00	.19	.09	.28	.33	.05	.09	.14	.14	.00	.05	.28	.09	.09	.00	.00	1.6
												.05		.09	.09	.00	.00	1.4
4-7	2	1.4	8	12	14	13	24	5	10	8	15	24	20	15	16	7	0	20
(1)	.09	. 66	. 38	. 57	. 66	. 62	1.14	.24	. 47	. 38	.71				.76	. 33	.00	9.1
(2)	.09	. 66	. 38	. 57	. 66	. 62	1.14	.24	. 47	. 38	.71				.76	. 33	.00	9.
8-12	9	12	11	13	19	26	23	17										
(1)	. 43	.57	. 52	. 62	. 90		1.09		15	30	38				41	19	0	4
(2)	.43	.57	. 52	. 62		1.23	1.09			1.42		4.17			1.94	. 90	.00	23.
						4.23	1.09		. 71	1.42	1.80	4.17	2.47	3.51	1.94	90	.00	23.
13-10	12	12	11	8	7	25	50	29	33	37	63	133	119	67	Ca	21	0	6
(1)	. 57	. 57	. 52	. 38	. 33	1.19	2.37	1.38		1.76				3.18		1.00		32.
(2)	. 57	. 57	. 52	. 30	.33	1.19	2.37	1.30	1.57	1.76	2.99	6.31		3.18		1.00	.00	32.
19-24	11	31	15	11	4	12	12	5										
(1)		1.47	.71	. 52	.19	.57	. 57	.24	6	22	43				32	23	0	3
(2)		1.47	.71	. 52	.19	.57	.57	.24	.28	1.04	2.04					2.09	.00	17.
										*	2.04	2.10	6.20	2.75	1.52	1.09	.00	17.
GT 24	23	33	31	14	26	8	7	0	1	8	9	7	24	84	19	9	0	
(1)		1.57		. 66	1.23	. 38	. 33	.00	.05	. 38	.43			3.98	.85	.43	.00	3 14
(2)	1.09	1.57	1.47	. 66	1.23	. 38	. 33	.00	.05	. 38	.43			3.98	.95	.43	.00	14
L SPERDS	57	102	80	60	76	91	112											
(1)						4.32	117	58	68	108	168		276		175	79	0	21
(2)	2.70	4.84	3 80	2 95	3 61	4.32	0.55	2.75	3.23		7.97	14.18	12.81	14.23	8.30	3.75	.00	100.
			0.00	e. 03	3.01	4.32	5.55	2.75	3.23	5.12	7.97	14.18	12.81	14.23	8.30	3.75	.00	100.

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

5. OFFSITE DOSE CALCULATION MANUAL REVISIONS

4.1.5 "

The PNPS Offsite Dose Calculation Manual (ODCM) was not revised during the reporting period.

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6. REFERENCES

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- 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, December 1974.
- 2. T. Messier memorandum to K.J. Sejkora, "Documentation for Calculation of 3rd and 4th Quarter 1997 JFD Tables for Pilgrim Station", dated February 13, 1998.

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