

ATTACHMENT TO AEP:NRC:8691-01

DONALD C. COOK NUCLEAR PLANT UNITS 1 AND 2
ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT
JANUARY 1, 2007, THROUGH DECEMBER 31, 2007

TABLE OF CONTENTS

	<u>Page</u>
Table of Contents	i
I. Introduction	1
II. Radioactive Releases and Radiological Impact on Man	1
Liquid Releases	2
Gaseous Releases	2
Solid Waste Disposition	2
III. Meteorological	2
IV. Offsite Dose Calculation Manual (ODCM) Changes	2
V. Total Dose	3
VI. Radiation Monitors Inoperable Greater Than 30 Days	3
VII. Conclusion	3

LIST OF APPENDICES

Appendix	Title
A1.1	2007 Effluent and Waste Disposal Annual Report – <u>Supplemental Information</u>
A1.2	Summary of Maximum Individual Doses: First Quarter, Second Quarter, Third Quarter, Fourth Quarter 2007, and Fourth Quarter 2006
A2.1	Hours at Each Wind Speed and Direction: First Quarter, 2007
A2.2	Hours at Each Wind Speed and Direction: Second Quarter, 2007
A2.3	Hours at Each Wind Speed and Direction: Third Quarter, 2007
A2.4	Hours at Each Wind Speed and Direction: Fourth Quarter, 2007
A3.0	Offsite Dose Calculation Manual (ODCM) Changes

I. INTRODUCTION

This report discusses the radioactive discharges from Unit 1 and Unit 2 of the Donald C. Cook Nuclear Plant (CNP) during 2007. This is in accordance with the requirements of CNP Technical Specification 5.6.3.

The table below summarizes the pertinent statistics concerning the Plant's operation during the period from January 1, 2007, to December 31, 2007. The data in this table and the descriptive information on plant operation are based upon the respective Unit's Monthly Operating Reports, Performance Indicators and Control Room Logs for 2007.

Parameter	Unit 1	Unit 2
Gross Electrical Energy Generation (Megawatt Hour (MWH))	9,559,146	8,389,164
Unit Service Factor (Percent (%))	99.6	85.5
Unit Capacity Factor (Maximum Dependable Capacity (MDC)) Net (%)	101.1	86.1

Unit 1 entered the reporting period in Mode 1 at Nominal Full Power (NFP). Small power adjustments were made to facilitate main turbine valve testing throughout the year. The unit experienced a reactor trip on August 28, 2007, on steam flow/feed flow mismatch caused by a power supply failure on feedwater turbine controls. The unit attained criticality on August 29, 2007, and returned to NFP on August 30, 2007. The unit exited the reporting period at NFP.

Unit 2 entered the reporting period in Mode 1 at NFP. Small power adjustments were made to facilitate main turbine valve testing throughout the year. The unit commenced end of cycle coast down load reduction on September 5, 2007, and entered the scheduled U2C17 refueling outage on September 15, 2007. The unit attained criticality on November 6, 2007, and attained NFP on November 10, 2007. The unit exited the reporting period at NFP.

II. RADIOACTIVE RELEASES AND RADIOLOGICAL IMPACT ON MAN

Since a number of release points are common to both units, the release data from both units are combined to form this two-unit, Annual Radioactive Effluent Release Report. Appendix A1.1 through A2.4 of this report present the information in accordance with Section 5.6.3 of Appendix A to the Facility Operating Licenses, as specified in the Technical Specifications, Regulatory Guide 1.21 and 10 CFR Part 50, Appendix I.

The "MIDAS System" is a computer code that calculates doses due to radionuclides that were released from the CNP.

All liquid and gaseous releases were well within Offsite Dose Calculation Manual (ODCM) limits and Federal Limits.

There were no abnormal liquid or gaseous releases.

Liquid Releases

During 2007 there were 105 liquid batch releases performed. The number of liquid batch releases for the four quarters in 2007 were, 17, 14, 39 and 35, respectively.

Estimated doses (in millirem) to maximally exposed individuals via the liquid release pathways are given in Appendix A1.2 of this report. The fourth quarter composite sample results were not available at the time of this report and will be included in next year's report. For similar reasons the fourth quarter of 2006 individual dose report is included as page A1.2-5.

Gaseous Releases

During the first quarter of 2007 there were no batch releases from Waste Gas Decay Tanks (GDT) and 68 Containment Pressure Reliefs (CPR). During the second quarter there was one batch release from a GDT and 64 CPR. During the third quarter there were five batch releases from GDT, two containment purges, and 50 CPR. During the fourth quarter there were four batch releases from GDT and 68 CPR. CPR continue to be listed as batch releases as described in Nuclear Regulatory Commission Inspections 50-315/89016 (DRSS) and 50-316/8917 (DRSS). Doses continue to be calculated utilizing continuous criteria as allowed by NUREG-0133. There were a total of 10 GDT, two containment purges, and 250 CPR gaseous batch releases made during 2007.

In calculating the dose consequences for continuous and batch gaseous releases during 2007, the meteorological data measured at the time of the release were used.

The estimated doses (in millirem) to maximally exposed individuals via the gaseous release pathways are given in Appendix A1.2 of this report. For individuals that are within the site boundary, the occupancy time is sufficiently low to compensate for any increase in the atmospheric diffusion factor above that for the site boundary.

Solid Waste Disposition

There were 46 shipments of radioactive waste made during 2007. These included shipments made from the site and the various radioactive waste processors to the ultimate disposal site.

III. METEOROLOGICAL

Appendices A2.1, A2.2, A2.3, and A2.4 of this report contain the cumulative joint frequency distribution tables of wind speed and wind direction, corresponding to the various atmospheric stability classes for the first, second, third and fourth quarters of 2007. Hourly meteorological data is available for review and/or inspection upon request.

IV. OFFSITE DOSE CALCULATION MANUAL (ODCM) CHANGES

The Offsite Dose Calculation Manual, PMP-6010-OSD-001, was revised during the report period. Copies of Revision 22 are included as part of the report.

V. TOTAL DOSE

Section 3.2.5 of the ODCM requires that the dose or dose commitment to a real individual from all uranium fuel cycle sources in Berrien County be limited to no more than 25 millirem to the total body or any organ (except the thyroid, which is limited to no more than 75 millirem) over a period of 12 consecutive months to show conformance with the requirements of 40 CFR Part 190. The maximum cumulative dose to an individual from liquid and gaseous effluents during 2007 was well within the ODCM limits. Measurements using thermoluminescent dosimeters (TLD) at 11 offsite stations indicate that the dose due to direct radiation is consistent with preoperational and current control (background) levels. This is fully evaluated in the Annual Radiological Environmental Operating Report.

The annual dose to the maximum individual will be estimated by first, summing the quarterly total body air dose, the quarterly skin air dose, the quarterly critical organ dose from iodines and particulates (I&P), the quarterly total body dose from liquid effluents, the quarterly critical organ dose from liquid effluents, and the Radiological Environmental Monitoring Program onsite direct radiation TLD data. These quarterly values will be summed and compared to the annual limit. The table that follows here represents the above verbal description:

Dose	1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter
Total Body or any organ (I&P)	4.13E-02	5.78E-02	1.19E-01	4.76E-02
Total Body (Air)	2.10E-04	6.10E-04	1.20E-03	4.60E-04
Skin (Air)	3.40E-04	1.00E-03	5.60E-03	1.40E-03
Total Body (liquid)	1.18E-02	1.93E-02	3.87E-02	2.10E-02
Maximum organ (liquid)	1.18E-02	1.94E-02	3.87E-02	2.15E-02
Direct Radiation	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Total	6.55E-02	9.81E-02	2.03E-01	9.20E-02
Cumulative Total Dose (Total Body or any other organ) mrem				4.59E-01
Annual Dose Limit (mrem)				2.50E+01
Percent of Limit				1.83E+00

VI. RADIATION MONITORS INOPERABLE GREATER THAN 30 DAYS

There were no radiation monitors inoperable for greater than 30 days while there was a release via that pathway.

VRS-2500, Unit 2 vent stack radiation monitor, particulate and iodine media was flooded out with rainwater during two separate instances, one on 7/19/07 and again on 7/26/07. The media was dried and counted as information data. These rainwater events are documented in Action Request 816309 and provided here as information.

VII. CONCLUSION

Based on the information presented in this report, it is concluded that the CNP Units 1 and 2 performed their intended design function with no demonstrable adverse affect on the health and safety of the general public.

2007 Effluent and Waste Disposal Annual Report

SUPPLEMENTAL INFORMATION

Facility: Donald C. Cook Nuclear Plant
Licensee: Indiana Michigan Power Company

1 REGULATORY LIMITS

1.1 Noble Gases

The air dose in unrestricted areas due to noble gases released in gaseous effluents shall be limited to the following:

1.1.1 During any calendar quarter, to ≤ 5 mrad for gamma radiation and ≤ 10 mrad for beta radiation.

1.1.2 During any calendar year, to ≤ 10 mrad for gamma radiation and ≤ 20 mrad for beta radiation.

1.2 Iodines – Particulates

The dose to a member of the public from radioiodines, radioactive materials in particulate form, and radionuclides other than noble gases with half-lives greater than eight days in gaseous effluents released to unrestricted areas shall be limited to the following:

1.2.1 During any calendar quarter to ≤ 7.5 mrem to any organ.

1.2.2 During any calendar year to ≤ 15 mrem to any organ.

1.3 Liquid Effluents

The dose or dose commitment to an individual from radioactive material in liquid effluents released to unrestricted areas shall be limited:

1.3.1 During any calendar quarter to ≤ 1.5 mrem to the total body and to ≤ 5 mrem to any organ.

1.3.2 During any calendar year to ≤ 3 mrem to the total body and to ≤ 10 mrem to any organ.

2007 Effluent and Waste Disposal Annual Report

1.4 Total Dose

The dose or dose commitment to a real individual from all uranium fuel cycle sources is limited to ≤ 25 mrem to the total body or any organ (except the thyroid, which is limited to ≤ 75 mrem) over a period of 12 consecutive months.

2 MAXIMUM PERMISSIBLE CONCENTRATIONS

2.1 Gaseous Effluents

The dose rate due to radioactive materials released in gaseous effluents from the site shall be limited to the following:

2.1.1 For noble gases: ≤ 500 mrem/yr to the total body and ≤ 3000 mrem/yr to the skin.

2.1.2 For all radioiodines and for all radioactive materials in particulate form and radionuclides (other than noble gases) with half-lives greater than eight days: ≤ 1500 mrem/yr to any organ.

The above limits are provided to insure that radioactive material discharged in gaseous effluents will not result in the exposure of an individual in an unrestricted area to annual average concentrations exceeding the limits in 10 CFR Part 20, Appendix B, Table 2, Column 1.

2.2 Liquid Effluents

The concentration of radioactive material released at any time from the site to unrestricted areas shall be limited to the concentrations specified in 10 CFR Part 20, Appendix B, Table 2, Column 2, for radionuclides other than dissolved or entrained noble gases. For dissolved or entrained noble gases, the concentration shall be limited to 2×10^{-4} $\mu\text{Ci/ml}$ total activity.

2007 Effluent and Waste Disposal Annual Report

3 AVERAGE ENERGY

The average energy (\bar{E}) of the radionuclide mixture in releases of fission and activation gases as defined in Regulatory Guide 1.21, Appendix B, Section A.3 is not applicable because the limits used for gaseous releases are based on calculated dose to members of the public. Release rates are calculated using an isotopic mix from actual samples rather than average energy.

4 MEASUREMENTS and APPROXIMATIONS of TOTAL RADIOACTIVITY

4.1 Fission and Activation Gases

Sampled and analyzed on a 4096 channel analyzer and HpGe detector. Tritium analysis is performed using liquid scintillation counter.

4.2 Iodines

Sampled on iodine adsorbing media and analyzed on a 4096 channel analyzer and HpGe detector.

4.3 Particulates

Sampled on a glass filter and analyzed on a 4096 channel analyzer and HpGe detector. Sr-89 and Sr-90 analyses performed by offsite vendor.

4.4 Liquid Effluents

Sampled and analyzed on a 4096 channel analyzer and HpGe detector. Tritium analysis is performed using liquid scintillation counter. Fe-55, Sr-89 and Sr-90 analyses performed by offsite vendor. Ni-63 is also currently being analyzed by the offsite vendor in response to evaluation of the 10 CFR 61 sample results.

2007 Effluent and Waste Disposal Annual Report

5 BATCH RELEASES

5.1 Liquid

5.1.1 Number of batch releases:

17 releases in the 1st quarter, 2007

14 releases in the 2nd quarter, 2007

39 releases in the 3rd quarter, 2007

35 releases in the 4th quarter, 2007

5.1.2 Total time period for batch releases:

19,830 minutes

5.1.3 Maximum time for a batch release:

737 minutes

5.1.4 Average time period for batch release:

189 minutes

5.1.5 Minimum time period for a batch release:

111 minutes

5.1.6 Average stream flow during periods of release of effluent into a flowing stream:

7.71E+5 gpm circulating water

2007 Effluent and Waste Disposal Annual Report

5.2 Gaseous

5.2.1 Number of batch releases:

68 releases in the 1st quarter, 2007
65 releases in the 2nd quarter, 2007
57 releases in the 3rd quarter, 2007
72 releases in the 4th quarter, 2007

5.2.2 Total time period for batch releases:

12,491 minutes

5.2.3 Maximum time for a batch release:

770 minutes

5.2.4 Average time period for batch release:

48 minutes

5.2.5 Minimum time period for a batch release:

12 minutes

2007 Effluent and Waste Disposal Annual Report

6 ABNORMAL RELEASES

6.1 Liquid

6.1.1 Number of Releases:

<u>1st Quarter</u>	<u>2nd Quarter</u>	<u>3rd Quarter</u>	<u>4th Quarter</u>
0	0	0	0

6.1.2 Total activity released (Ci):

<u>1st Quarter</u>	<u>2nd Quarter</u>	<u>3rd Quarter</u>	<u>4th Quarter</u>
0	0	0	0

6.2 Gaseous

6.2.1 Number of Releases:

<u>1st Quarter</u>	<u>2nd Quarter</u>	<u>3rd Quarter</u>	<u>4th Quarter</u>
0	0	0	0

6.2.2 Total activity released (Ci):

<u>1st Quarter</u>	<u>2nd Quarter</u>	<u>3rd Quarter</u>	<u>4th Quarter</u>
0	0	0	0

2007 EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
GASEOUS EFFLUENTS-GROUND LEVEL RELEASES

CONTINUOUS MODE

Nuclides Released	Unit	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
1. FISSION GASES					
H3	Ci	9.97E+01	7.19E+01	5.24E+01	6.73E+01
AR41	Ci	-----	-----	-----	-----
KR85	Ci	-----	-----	-----	-----
XE131m	Ci	-----	-----	-----	-----
XE133m	Ci	-----	-----	-----	-----
XE133	Ci	-----	-----	1.85E-01	6.56E-01
XE135	Ci	-----	-----	-----	-----
Total for Period	Ci	9.97E+01	7.19E+01	5.26E+01	6.80E+01

Nuclides Released	Unit	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2. IODINES					
I131	Ci	-----	-----	4.77E-05	9.77E-05
I132	Ci	-----	-----	3.63E-05	4.42E-05
I133	Ci	-----	-----	3.53E-06	-----
Total for Period	Ci	-----	-----	8.75E-05	1.42E-04

3. PARTICULATES					
MN54	Ci	-----	-----	-----	-----
CO58	Ci	-----	-----	-----	-----
CO60	Ci	-----	-----	-----	-----
AG110m	Ci	-----	-----	-----	-----
CS134	Ci	-----	-----	-----	-----
CS137	Ci	-----	-----	-----	-----
Total for Period	Ci	-----	-----	-----	-----

* DENOTES SUPPLEMENTAL ISOTOPES

2007 EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
GASEOUS EFFLUENTS-GROUND LEVEL RELEASES

BATCH MODE

Nuclides Released	Unit	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
1. FISSION GASES					
H3	Ci	5.87E-02	6.12E-02	1.39E-01	6.91E-03
AR41	Ci	2.48E-01	3.25E-01	3.46E-01	2.33E-01
KR85	Ci	-----	1.01E+00	2.73E+00	2.88E+00
XE131M	Ci	-----	-----	4.26E-03	5.44E-03
XE133M	Ci	-----	-----	2.05E-04	1.79E-04
XE133	Ci	5.29E-02	1.13E-01	4.80E-01	5.75E-01
XE135	Ci	1.66E-03	1.82E-03	3.10E-03	8.43E-04
Total for Period	Ci	3.61E-01	1.51E+00	3.70E+00	3.70E+00
2. IODINES					
I131	Ci	-----	-----	1.30E-06	-----
I133	Ci	-----	-----	8.07E-07	-----
Total for Period	Ci	-----	-----	2.11E-06	-----
3. PARTICULATES					
CO60	Ci	-----	-----	-----	-----
Total for Period	Ci	-----	-----	-----	-----

2007 EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
GASEOUS EFFLUENTS-SUMMATION OF ALL RELEASES

	Units	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Est. Total Error, %

A. FISSION AND ACTIVATION GASES						

1. Total Release	Ci	3.03E-01	1.45E+00	3.75E+00	4.35E+00	21.1

2. Average release rate for period	uCi/sec	3.89E-02	1.85E-01	4.71E-01	5.48E-01	

3. Percent of applicable limit*	% Gamma Beta	6.74E-03 1.26E-03	2.13E-02 2.83E-02	4.31E-02 7.47E-02	1.54E-02 1.61E-02	

B. IODINES						

1. Total I-131	Ci	0.00E+00	0.00E+00	4.90E-05	9.77E-05	12.3

2. Average release rate for period	uCi/sec	0.00E+00	0.00E+00	6.17E-06	1.23E-05	

3. Percent of applicable limit*	%	0.00E+00	0.00E+00	1.59E+00	6.35E-01	

C. PARTICULATES						

1. Particulates with half lives > 8 days	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	

2. Average release rate for period	uCi/sec	0.00E+00	0.00E+00	0.00E+00	0.00E+00	

3. Percent of applicable limit*	%	0.00E+00	0.00E+00	0.00E+00	0.00E+00	

4. Gross alpha radioactivity	Ci	<9.03E-07	<6.79E-07	<7.09E-07	<6.59E-07	

D. TRITIUM						

1. Total Release	Ci	9.97E+01	7.19E+01	5.25E+01	6.73E+01	10.8

2. Average release rate for period	uCi/sec	1.28E+01	9.15E+00	6.60E+00	8.47E+00	

3. Percent of applicable limit*	%	5.51E-01	7.71E-01	1.59E+00	6.35E-01	

* Applicable limits are expressed in terms of dose. See Appendices A1.2-1 through A1.2-4

2007 EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
LIQUID EFFLUENTS
CONTINUOUS MODE

Nuclides Released	Unit	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
H3	Ci	1.72E-01	1.58E-01	2.94E-01	1.72E-01

BATCH MODE

Nuclides Released	Unit	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
H3	Ci	4.07E+02	8.09E+02	1.59E+03	7.37E+02
CR51	Ci	2.89E-05	-----	-----	-----
MN54	Ci	2.96E-05	4.03E-06	4.54E-06	4.03E-06
FE55	Ci	5.19E-04	-----	-----	-----
CO57	Ci	1.30E-06	-----	-----	-----
CO58	Ci	5.96E-04	8.16E-05	1.54E-04	4.61E-04
CO60	Ci	3.19E-04	5.48E-05	1.70E-04	1.79E-04
NI63	Ci	-----	-----	7.40E-04	9.37E-07
ZN65	Ci	1.04E-04	-----	-----	-----
*KR85	Ci	-----	-----	-----	1.71E-06
ZR95	Ci	1.16E-05	1.58E-06	-----	-----
NB95	Ci	2.49E-05	2.28E-06	-----	5.03E-06
MO99	Ci	-----	-----	1.03E-06	-----
AG110M	Ci	6.77E-06	8.10E-06	1.49E-04	1.06E-04
SB124	Ci	-----	-----	-----	9.50E-05
SB125	Ci	-----	-----	2.77E-06	3.42E-04
I131	Ci	-----	-----	2.39E-06	-----
CS134	Ci	-----	-----	4.33E-06	8.81E-05
CS137	Ci	-----	3.80E-06	1.32E-05	9.58E-05
*XE133	Ci	3.88E-05	2.72E-05	8.16E-04	4.80E-03
*XE133m	Ci	-----	-----	-----	2.93E-05
*XE135	Ci	-----	-----	1.01E-06	7.01E-06

- DENOTES SUPPLEMENTAL ISOTOPES
- Only Non-Zero Batch or Continuous Releases are Printed

2007 EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
LIQUID EFFLUENTS-SUMMATION OF ALL RELEASES
BATCH MODE

	Units	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Est. Total Error, %

A. FISSION AND ACTIVATION PRODUCTS						

1. Total Release	Ci	1.64E-03	1.56E-04	1.24E-03	1.38E-03	15.9

2. Average diluted concentration during period	uCi/ml	2.21E-10	1.99E-11	5.56E-11	6.92E-11	

3. Percent of applicable limit	%	2.23E-03	3.55E-04	5.25E-04	1.60E-03	

B. TRITIUM						

1. Total Release	Ci	4.07E+02	8.09E+02	1.59E+03	7.37E+02	10.1

2. Average diluted concentration during period	uCi/ml	5.47E-05	1.03E-04	7.12E-05	3.70E-05	

3. Percent of applicable limit	%	5.47E+00	1.03E+01	7.12E+00	3.70E+00	

C. DISSOLVED AND ENTRAINED GASES						

1. Total Release	Ci	3.88E-05	2.72E-05	8.17E-04	4.84E-03	12.7

2. Average diluted concentration during period	uCi/ml	5.22E-12	3.47E-12	3.67E-11	2.43E-10	

3. Percent of applicable limit	%	2.61E-06	1.74E-06	1.83E-05	1.22E-04	

D. GROSS ALPHA RADIOACTIVITY TOTAL RELEASE	Ci	<8.76E-05	<7.46E-05	<2.19E-04	<2.07E-04	N/A

E. VOLUME OF WASTE RELEASED	Liters	9.60E+05	8.18E+05	2.31E+06	2.22E+06	2.00

F. VOLUME OF DILUTION WATER USED DURING PERIOD	Liters	7.43E+09	7.83E+09	2.23E+10	1.99E+10	3.48

2007 EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
LIQUID EFFLUENTS-SUMMATION OF ALL RELEASES
CONTINUOUS MODE

	Units	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Est. Total Error, %

A. FISSION AND ACTIVATION PRODUCTS						

1. Total Release	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	N/A

2. Average diluted concentration during period	uCi/ml	0.00E+00	0.00E+00	0.00E+00	0.00E+00	

3. Percent of applicable limit	%	0.00E+00	0.00E+00	0.00E+00	0.00E+00	

B. TRITIUM						

1. Total Release	Ci	1.72E-01	1.58E-01	2.94E-01	1.72E-01	14.0

2. Average diluted concentration during period	uCi/ml	2.32E-10	1.95E-10	3.83E-10	2.57E-10	

3. Percent of applicable limit	%	2.32E-05	1.95E-05	3.83E-05	2.57E-05	

C. DISSOLVED AND ENTRAINED GASES						

1. Total Release	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00	N/A

2. Average diluted concentration during period	uCi/ml	0.00E+00	0.00E+00	0.00E+00	0.00E+00	

3. Percent of applicable limit	%	0.00E+00	0.00E+00	0.00E+00	0.00E+00	

D. GROSS ALPHA RADIOACTIVITY TOTAL RELEASE	Ci	<2.43E-02	<2.57E-02	<2.37E-02	<1.96E-02	N/A

E. VOLUME OF WASTE RELEASED	Liters	5.57E+07	3.56E+07	8.34E+07	4.79E+07	2.00

F. VOLUME OF DILUTION WATER USED DURING PERIOD	Liters	7.40E+11	8.09E+11	7.67E+11	6.68E+11	3.48

2006 EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
LIQUID EFFLUENTS
CONTINUOUS MODE

Nuclides Released	Unit	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
H3	Ci	3.17E-01	1.78E-01	5.54E-02	-----

BATCH MODE

Nuclides Released	Unit	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
H3	Ci	1.64E+02	3.30E+02	2.31E+02	2.80E+02
CR51	Ci	-----	3.41E-04	9.57E-05	2.11E-04
MN54	Ci	5.72E-06	4.93E-06	9.97E-06	2.95E-05
FE55	Ci	-----	-----	5.90E-04	1.08E-05
FE59	Ci	-----	-----	1.08E-05	6.26E-06
CO57	Ci	4.82E-06	-----	1.79E-06	4.15E-05
CO58	Ci	1.93E-04	8.01E-04	1.88E-03	1.24E-02
CO60	Ci	1.58E-04	2.42E-04	1.77E-04	5.71E-04
NI63	Ci	-----	4.19E-04	3.38E-04	1.10E-03
ZN65	Ci	-----	-----	-----	2.95E-05
ZR95	Ci	-----	2.55E-06	2.35E-06	3.67E-06
NB95	Ci	-----	3.66E-06	8.16E-06	1.28E-05
AG110M	Ci	1.02E-05	2.48E-04	1.72E-05	5.09E-05
SB124	Ci	-----	4.59E-06	2.14E-06	2.91E-05
SB125	Ci	4.26E-05	4.14E-05	7.41E-05	3.72E-04
I131	Ci	-----	-----	4.16E-06	-----
CS134	Ci	1.87E-05	-----	2.07E-06	2.81E-05
CS137	Ci	2.06E-05	1.84E-05	2.72E-06	3.36E-05
*XE133	Ci	-----	5.84E-06	-----	7.00E-06
*XE133m	Ci	-----	-----	-----	1.44E-05

* DENOTES SUPPLEMENTAL ISOTOPES

2006 EFFLUENT AND WASTE DISPOSAL ANNUAL REPORT
LIQUID EFFLUENTS-SUMMATION OF ALL RELEASES
BATCH MODE

	Units	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Est. Total Error, %

A. FISSION AND ACTIVATION PRODUCTS						

1. Total Release	Ci	4.54E-04	2.13E-03	3.21E-03	1.49E-02	12.6

2. Average diluted concentration during period	uCi/ml	7.34E-11	2.94E-10	3.75E-10	1.76E-09	

3. Percent of applicable limit	%	1.73E-03	2.60E-03	2.09E-03	1.09E-02	

B. TRITIUM						

1. Total Release	Ci	1.64E+02	3.30E+02	2.31E+02	2.80E+02	10.1

2. Average diluted concentration during period	uCi/ml	2.65E-05	4.56E-05	2.70E-05	3.32E-05	

3. Percent of applicable limit	%	2.65E+00	4.56E+00	2.70E+00	3.32E+00	

C. DISSOLVED AND ENTRAINED GASES						

1. Total Release	Ci	0.00E+00	5.84E-06	0.00E+00	2.14E-05	43.5

2. Average diluted concentration during period	uCi/ml	0.00E+00	8.07E-13	0.00E+00	2.53E-12	

3. Percent of applicable limit	%	0.00E+00	4.03E-07	0.00E+00	1.27E-06	

D. GROSS ALPHA RADIOACTIVITY TOTAL RELEASE	Ci	<8.00E-05	<8.24E-05	<8.51E-05	<9.00E-05	N/A

E. VOLUME OF WASTE RELEASED	Liters	8.77E+05	9.03E+05	9.33E+05	9.87E+05	2.00

F. VOLUME OF DILUTION WATER USED DURING PERIOD	Liters	6.18E+09	7.24E+09	8.56E+09	8.45E+09	3.48

2007 Effluent and Waste Disposal Annual Report Solid Waste and Irradiated Fuel Shipments

Solid Waste Shipped Offsite for Burial or Disposal			
1) Type of Waste	Unit	Estimated amount	Estimated Total Error, %
a) Spent resins, filters, sludge, evaporator bottoms, etc.	m ³ Curies	5.18E+00 1.10E+02	1.00E+00 3.75E+00
b) Dry compressible waste, contaminated equipment, etc.	m ³ Curies	1.18E+02 9.98E+00	1.00E+00 6.48E+00
c) Irradiated components, control rods, etc.	m ³ Curies	3.00E+00 2.36E+00	1.00E+00 6.48E+00
d) Other	m ³ Curies		

2) Estimate of Principle Radionuclide Composition								
a)	H-3	13 %	Co-58	3 %	Sb-125	2 %		
	Mn-54	1 %	Co-60	17 %	Cs-134	7 %		
	Fe-55	9 %	Ni-63	32 %	Cs-137	16 %		
b)	H-3	6 %	Co-58	9 %	Sb-125	1 %		
	Mn-54	1 %	Co-60	29 %	Cs-134	1 %		
	Fe-55	36 %	Ni-63	13 %	Cs-137	2 %	Zn-65	2 %
c)	Mn-54	3 %	Zn-65	4 %	Co-60	38 %		
	Fe-55	25 %	Co-58	15 %	Ni-63	14 %	Zr-95	1 %

3) Solid Waste Disposition		
No. of Shipments	Mode of Transportation	Destination
12	Truck	Barnwell, SC
34	Truck	Clive, UT

4) Type of Containers used for Shipment: Containers used are excepted packages, Type A, Sea Land, metal boxes, drums and high integrity containers.

5) Solidification Agent: There were no solidifications performed during this report period.

2007 Effluent and Waste Disposal Annual Report Yearly Release Rates

GASES		
Fission and Activation Gases	Total Release	9.85E+00 Curies
	Average Release Rate	3.12E-01 μ Ci/sec
	% of Applicable Limits*	γ 4.33E-02 % β 6.02E-02 %
Iodines	Total I-131 Release	1.47E-04 Curies
	Average Release Rate	4.65E-06 μ Ci/sec
	% of Applicable Limit*	1.77E+00 %
Particulates	Total Release	0.00E+00 Curies
	Average Release Rate	0.00E+00 μ Ci/sec
	% of Applicable Limit*	0.00E+00 %
LIQUIDS		
Fission and Activation Products	Total Release	4.42E-03 Curies
	Average Diluted Concentration	7.62E-11 μ Ci/ml
	% of Applicable Limits*	Total Body 3.03E+00 % Organ 9.14E-01 %

* Applicable limits are expressed in terms of the annual 10 CFR 50, Appendix I, dose limits.

Site Boundary and Nearest Residence Listing

The following distances were used in the calculation of the maximum individual doses:

<u>Sector</u>	<u>Direction</u>	<u>Boundary (Meters)</u>	<u>Nearest Residence (Meters)</u>
A	N	651	659
B	NNE	617	660
C	NE	789	943
D	ENE	1497	1747
E	E	1274	1716
F	ESE	972	1643
G	SE	629	1640
H	SSE	594	964
J	S	594	997
K	SSW	629	942

Summary of Maximum Individual Doses

First Quarter 2007

EFFLUENT	APPLICABLE ORGAN	ESTIMATED DOSE (mrem)	AGE GROUP	LOCATION DIST DIR (M) (Toward)	% OF APPLICABLE LIMIT	LIMIT (mrem) QTR
Liquid	Total Body	1.18E-02	Child	Receptor 1	7.85E-01	1.5E+0
Liquid	GI-Tract	1.18E-02	Child	Receptor 1	2.36E-01	5.0E+0
Noble Gas	Air Dose (Gamma-mrad)	3.37E-04	Any Age	651 (N)	6.74E-03	5.0E+0
Noble Gas	Air dose (Beta-mrad)	1.26E-04	Any Age	651 (N)	1.26E-03	1.0E+1
Iodines and Particulates	Total Body	4.13E-02	Child	814 (NNE)	5.51E-01	7.5E+0

Summary of Maximum Individual Doses

Second Quarter 2007

EFFLUENT	APPLICABLE ORGAN	ESTIMATED DOSE (mrem)	AGE GROUP	LOCATION DIST DIR (M) (Toward)	% OF APPLICABLE LIMIT	LIMIT (mrem) QTR
Liquid	Total Body	1.93E-02	Child	Receptor 1	1.29E+00	1.5E+0
Liquid	Liver	1.94E-02	Child	Receptor 1	3.87E-01	5.0E+0
Noble Gas	Air Dose (Gamma-mrad)	1.07E-03	Any Age	651 (N)	2.13E-02	5.0E+0
Noble Gas	Air dose (Beta-mrad)	2.83E-03	Any Age	594 (S)	2.83E-02	1.0E+1
Iodines and Particulates	Total Body	5.78E-02	Child	814 (NNE)	7.71E-01	7.5E+0

Summary of Maximum Individual Doses

Third Quarter 2007

EFFLUENT	APPLICABLE ORGAN	ESTIMATED DOSE (mrem)	AGE GROUP	LOCATION DIST DIR (M) (Toward)	% OF APPLICABLE LIMIT	LIMIT (mrem) QTR
Liquid	Total Body	3.87E-02	Child	Receptor 1	2.58E+00	1.5E+0
Liquid	Liver	3.87E-02	Child	Receptor 1	7.75E-01	5.0E+0
Noble Gas	Air Dose (Gamma-mrad)	2.15E-03	Any Age	651 (N)	4.31E-02	5.0E+0
Noble Gas	Air dose (Beta-mrad)	7.47E-03	Any Age	617 (NNE)	7.47E-02	1.0E+1
Iodines and Particulates	Thyroid	1.19E-01	Child	659 (N)	1.59E+00	7.5E+0

Summary of Maximum Individual Doses

Fourth Quarter 2007

EFFLUENT	APPLICABLE ORGAN	ESTIMATED DOSE (mrem)	AGE GROUP	LOCATION DIST DIR (M) (Toward)	% OF APPLICABLE LIMIT	LIMIT (mrem) QTR
Liquid	Total Body	2.10E-02	Child	Receptor 1	1.40E+00	1.5E+0
Liquid	Liver	2.15E-02	Child	Receptor 1	4.29E-01	5.0E+0
Noble Gas	Air Dose (Gamma-mrad)	7.69E-04	Any Age	651 (N)	1.54E-02	5.0E+0
Noble Gas	Air dose (Beta-mrad)	1.61E-03	Any Age	594 (SSE)	1.61E-02	1.0E+1
Iodines and Particulates	Thyroid	4.76E-02	Child	659 (N)	6.35E-01	7.5E+0

Summary of Maximum Individual Doses

Fourth Quarter 2006

EFFLUENT	APPLICABLE ORGAN	ESTIMATED DOSE (mrem)	AGE GROUP	LOCATION DIST DIR (M) (Toward)	% OF APPLICABLE LIMIT	LIMIT (mrem) QTR
Liquid	Total Body	6.88E-03	Child	Receptor 1	4.59E-01	1.5E+0
Liquid	Liver	7.01E-03	Child	Receptor 1	1.40E-01	5.0E+0
Noble Gas	Air Dose (Gamma-mrad)	5.65E-04	Any Age	651 (N)	1.13E-02	5.0E+0
Noble Gas	Air dose (Beta-mrad)	2.24E-04	Any Age	651 (N)	2.24E-03	1.0E+1
Iodines and Particulates	Thyroid	7.15E-02	Child	1643 (ESE)	9.53E-01	7.5E+0

SITE: AEP COOK

HOURS AT EACH WIND SPEED AND DIRECTION

PERIOD OF RECORD: 1/1/07 - 3/31/07
STABILITY CLASS: A DT/DZ
ELEVATION: SPEED:SP10M DIRECTION:DIR10M LAPSE:DT60M

WIND SPEED (MPH)

WIND DIRECTION	1-4	4-8	8-13	13-19	19-25	>25	TOTAL
N	1	13	13	0	0	0	27
NNE	2	2	2	0	0	0	6
NE	2	8	0	0	0	0	10
ENE	3	10	4	0	0	0	17
E	2	3	3	0	0	0	8
ESE	0	12	13	0	0	0	25
SE	0	11	4	0	0	0	15
SSE	0	14	6	0	0	0	20
S	1	2	19	4	0	0	26
SSW	0	5	6	3	0	0	14
SW	2	9	30	6	0	0	47
WSW	0	14	31	1	0	0	46
W	2	23	24	5	0	0	54
WNW	3	13	4	0	0	0	20
NW	1	10	2	0	0	0	13
NNW	2	27	12	0	0	0	41
TOTAL	21	176	173	19	0	0	389

PERIODS OF CALM(HOURS): 0
VARIABLE DIRECTION: 0
HOURS OF MISSING DATA: 0

SITE: AEP COOK

HOURS AT EACH WIND SPEED AND DIRECTION

PERIOD OF RECORD: 1/1/07 - 3/31/07
STABILITY CLASS: B DT/DZ
ELEVATION: SPEED:SP10M DIRECTION:DIR10M LAPSE:DT60M

WIND DIRECTION	WIND SPEED (MPH)						TOTAL
	1-4	4-8	8-13	13-19	19-25	>25	
N	1	3	2	0	0	0	6
NNE	0	1	0	0	0	0	1
NE	0	7	2	0	0	0	9
ENE	2	5	1	0	0	0	8
E	1	2	4	0	0	0	7
ESE	0	3	1	0	0	0	4
SE	1	2	0	0	0	0	3
SSE	1	2	2	0	0	0	5
S	3	4	8	0	0	0	15
SSW	3	0	2	5	0	0	10
SW	0	6	10	1	0	0	17
WSW	0	2	7	2	0	0	11
W	1	7	8	1	0	0	17
WNW	2	5	0	0	0	0	7
NW	2	8	0	0	0	0	10
NNW	2	5	2	0	0	0	9
<hr/>							
TOTAL	19	62	49	9	0	0	139

PERIODS OF CALM(HOURS): 0
VARIABLE DIRECTION: 0
HOURS OF MISSING DATA: 0

SITE: AEP COOK

HOURS AT EACH WIND SPEED AND DIRECTION

PERIOD OF RECORD: 1/1/07 - 3/31/07
STABILITY CLASS: C DT/DZ
ELEVATION: SPEED:SP10M DIRECTION:DIR10M LAPSE:DT60M

WIND SPEED (MPH)

WIND DIRECTION	1-4	4-8	8-13	13-19	19-25	>25	TOTAL
N	2	4	3	0	0	0	9
NNE	3	4	0	0	0	0	7
NE	2	5	2	0	0	0	9
ENE	6	4	2	1	0	0	12
E	3	8	3	0	0	0	14
ESE	0	3	2	0	0	0	5
SE	1	4	2	0	0	0	7
SSE	0	3	1	0	0	0	4
S	1	2	3	1	0	0	7
SSW	0	0	2	1	0	0	3
SW	1	2	11	1	0	0	15
WSW	0	5	10	1	0	0	16
W	2	4	7	0	0	0	13
WNW	1	3	5	0	0	0	9
NW	2	9	6	0	0	0	17
NNW	2	9	3	0	0	0	14
TOTAL	26	69	62	4	0	0	161

PERIODS OF CALM(HOURS): 0
VARIABLE DIRECTION: 0
HOURS OF MISSING DATA: 0

SITE: AEP COOK

HOURS AT EACH WIND SPEED AND DIRECTION

PERIOD OF RECORD: 1/1/07 - 3/31/07
STABILITY CLASS: D DT/DZ
ELEVATION: SPEED:SP10M DIRECTION:DIR10M LAPSE:DT60M

WIND SPEED (MPH)

WIND DIRECTION	1-4	4-8	8-13	13-19	19-25	>25	TOTAL
N	13	23	14	0	0	0	50
NNE	13	23	12	0	0	0	48
NE	9	15	2	0	0	0	26
ENE	8	19	14	1	0	0	42
E	6	28	35	0	0	0	69
ESE	7	35	28	0	0	0	70
SE	4	23	11	0	0	0	38
SSE	12	16	13	0	0	0	41
S	4	47	54	23	0	0	128
SSW	6	34	69	17	0	0	126
SW	5	18	56	4	0	0	83
WSW	5	25	35	14	0	0	79
W	4	39	48	4	0	0	95
WNW	7	54	29	0	0	0	90
NW	7	69	22	0	0	0	98
NNW	9	65	9	0	0	0	83
TOTAL	119	533	451	63	0	0	1166

PERIODS OF CALM(HOURS): 0
VARIABLE DIRECTION: 0
HOURS OF MISSING DATA: 0

SITE: AEP COOK

HOURS AT EACH WIND SPEED AND DIRECTION

PERIOD OF RECORD: 1/1/07 - 3/31/07
STABILITY CLASS: E DT/DZ
ELEVATION: SPEED:SP10M DIRECTION:DIR10M LAPSE:DT60M

WIND DIRECTION	WIND SPEED (MPH)						TOTAL
	1-4	4-8	8-13	13-19	19-25	>25	
N	3	1	0	0	0	0	4
NNE	2	2	0	0	0	0	4
NE	4	1	0	0	0	0	5
ENE	6	2	0	0	0	0	8
E	3	1	8	0	0	0	12
ESE	7	11	5	0	0	0	23
SE	8	18	1	0	0	0	27
SSE	10	5	0	0	0	0	15
S	4	29	8	0	0	0	41
SSW	1	9	8	1	0	0	19
SW	4	8	6	2	0	0	20
WSW	3	4	1	0	0	0	8
W	1	7	3	0	0	0	11
WNW	3	6	0	0	0	0	9
NW	2	0	0	0	0	0	2
NNW	3	3	0	0	0	0	6
TOTAL	64	107	40	3	0	0	214

PERIODS OF CALM(HOURS): 0
VARIABLE DIRECTION: 0
HOURS OF MISSING DATA: 0

SITE: AEP COOK

HOURS AT EACH WIND SPEED AND DIRECTION

PERIOD OF RECORD: 1/1/07 - 3/31/07
STABILITY CLASS: F DT/DZ
ELEVATION: SPEED:SP10M DIRECTION:DIR10M LAPSE:DT60M

WIND DIRECTION	WIND SPEED (MPH)						TOTAL
	1-4	4-8	8-13	13-19	19-25	>25	
N	1	0	0	0	0	0	1
NNE	0	0	0	0	0	0	0
NE	1	0	0	0	0	0	1
ENE	0	0	0	0	0	0	0
E	3	2	0	0	0	0	5
ESE	3	0	0	0	0	0	3
SE	2	1	0	0	0	0	3
SSE	9	6	0	0	0	0	15
S	5	10	0	0	0	0	15
SSW	1	0	0	0	0	0	1
SW	0	0	0	0	0	0	0
WSW	7	0	0	0	0	0	7
W	1	0	0	0	0	0	1
WNW	1	0	0	0	0	0	1
NW	0	0	0	0	0	0	0
NNW	0	0	0	0	0	0	0
TOTAL	34	19	0	0	0	0	53

PERIODS OF CALM(HOURS): 0
VARIABLE DIRECTION: 0
HOURS OF MISSING DATA: 0

SITE: AEP COOK

HOURS AT EACH WIND SPEED AND DIRECTION

PERIOD OF RECORD: 1/1/07 - 3/31/07
STABILITY CLASS: G DT/DZ
ELEVATION: SPEED:SP10M DIRECTION:DIR10M LAPSE:DT60M

WIND SPEED (MPH)

WIND DIRECTION	1-4	4-8	8-13	13-19	19-25	>25	TOTAL
N	0	0	0	0	0	0	0
NNE	0	0	0	0	0	0	0
NE	1	0	0	0	0	0	1
ENE	0	0	0	0	0	0	0
E	1	0	0	0	0	0	1
ESE	1	0	0	0	0	0	1
SE	7	0	0	0	0	0	7
SSE	11	0	0	0	0	0	11
S	5	3	0	0	0	0	8
SSW	2	0	0	0	0	0	2
SW	0	0	0	0	0	0	0
WSW	1	0	0	0	0	0	1
W	1	1	0	0	0	0	2
WNW	1	0	0	0	0	0	1
NW	1	0	0	0	0	0	1
NNW	2	0	0	0	0	0	2
TOTAL	34	4	0	0	0	0	38

PERIODS OF CALM(HOURS): 0
VARIABLE DIRECTION: 0
HOURS OF MISSING DATA: 0

SITE: AEP COOK

HOURS AT EACH WIND SPEED AND DIRECTION

PERIOD OF RECORD: 1/1/07 - 3/31/07
STABILITY CLASS: ALL DT/DZ
ELEVATION: SPEED:SP10M DIRECTION:DIR10M LAPSE:DT60M

WIND DIRECTION	WIND SPEED (MPH)						TOTAL
	1-4	4-8	8-13	13-19	19-25	>25	
N	21	44	32	0	0	0	97
NNE	20	32	14	0	0	0	66
NE	19	36	6	0	0	0	61
ENE	25	40	21	1	0	0	87
E	19	44	53	0	0	0	116
ESE	18	64	49	0	0	0	131
SE	23	59	18	0	0	0	100
SSE	43	46	22	0	0	0	111
S	23	97	92	28	0	0	240
SSW	13	48	87	27	0	0	175
SW	12	43	113	14	0	0	182
WSW	16	50	84	18	0	0	168
W	12	81	90	10	0	0	193
WNW	18	81	38	0	0	0	137
NW	15	96	30	0	0	0	141
NNW	20	109	26	0	0	0	155
TOTAL	317	970	775	98	0	0	2160

PERIODS OF CALM(HOURS): 0
VARIABLE DIRECTION: 0
HOURS OF MISSING DATA: 0
Hours are not adjusted for Daylight Savings Time

SITE: AEP COOK

HOURS AT EACH WIND SPEED AND DIRECTION

PERIOD OF RECORD: 4/1/07 - 6/30/07
STABILITY CLASS: A DT/DZ
ELEVATION: SPEED:SP10M DIRECTION:DIR10M LAPSE:DT60M

WIND DIRECTION	WIND SPEED (MPH)						TOTAL
	1-3	4-7	8-12	13-18	19-24	>24	
N	8	54	3	0	0	0	65
NNE	2	9	1	0	0	0	12
NE	1	11	1	0	0	0	13
ENE	2	8	6	1	0	0	16
E	3	18	12	0	0	0	33
ESE	5	16	7	0	0	0	28
SE	3	19	6	0	0	0	28
SSE	7	31	5	0	0	0	43
S	7	36	22	6	0	0	71
SSW	0	7	11	10	0	0	28
SW	2	20	20	1	0	0	43
WSW	0	28	9	1	0	0	38
W	4	23	5	0	0	0	32
WNW	4	29	6	0	0	0	39
NW	11	33	15	0	0	0	59
NNW	16	112	5	0	0	0	133
TOTAL	75	454	134	18	0	0	681

PERIODS OF CALM(HOURS): 11
VARIABLE DIRECTION: 0
HOURS OF MISSING DATA: 2

SITE: AEP COOK

HOURS AT EACH WIND SPEED AND DIRECTION

PERIOD OF RECORD: 4/1/07 - 6/30/07
STABILITY CLASS: B DT/DZ
ELEVATION: SPEED:SP10M DIRECTION:DIR10M LAPSE:DT60M

WIND SPEED (MPH)

WIND DIRECTION	1-3	4-7	8-12	13-18	19-24	>24	TOTAL
N	3	3	1	0	0	0	7
NNE	0	0	1	0	0	0	1
NE	0	1	0	0	0	0	1
ENE	0	5	3	0	0	0	8
E	0	2	0	0	0	0	2
ESE	2	1	2	0	0	0	5
SE	3	1	0	0	0	0	4
SSE	0	1	0	0	0	0	1
S	2	7	2	1	0	0	12
SSW	0	3	1	0	0	0	4
SW	1	7	3	1	0	0	12
WSW	0	2	0	0	0	0	2
W	1	5	2	0	0	0	8
WNW	0	4	3	1	0	0	8
NW	4	0	2	0	0	0	6
NNW	4	3	0	0	0	0	7
TOTAL	20	45	20	3	0	0	88

PERIODS OF CALM(HOURS): 11
VARIABLE DIRECTION: 0
HOURS OF MISSING DATA: 2

SITE: AEP COOK

HOURS AT EACH WIND SPEED AND DIRECTION

PERIOD OF RECORD: 4/1/07 - 6/30/07
STABILITY CLASS: C DT/DZ
ELEVATION: SPEED:SP10M DIRECTION:DIR10M LAPSE:DT60M

WIND DIRECTION	WIND SPEED (MPH)						TOTAL
	1-3	4-7	8-12	13-18	19-24	>24	
N	3	4	1	0	0	0	8
NNE	1	1	0	0	0	0	2
NE	3	2	0	0	0	0	5
ENE	1	1	2	0	0	0	4
E	0	5	2	0	0	0	7
ESE	0	3	0	0	0	0	3
SE	3	0	0	0	0	0	3
SSE	4	2	0	0	0	0	6
S	2	4	3	1	0	0	10
SSW	3	2	1	2	0	0	8
SW	1	4	0	0	0	0	5
WSW	2	2	0	0	0	0	4
W	1	2	3	0	0	0	6
WNW	1	1	6	0	0	0	8
NW	5	4	8	0	0	0	17
NNW	1	5	1	0	0	0	7
TOTAL	31	42	27	3	0	0	103

PERIODS OF CALM(HOURS): 16
VARIABLE DIRECTION: 0
HOURS OF MISSING DATA: 3

SITE: AEP COOK

HOURS AT EACH WIND SPEED AND DIRECTION

PERIOD OF RECORD: 4/1/07 - 6/30/07
STABILITY CLASS: D DT/DZ
ELEVATION: SPEED:SP10M DIRECTION:DIR10M LAPSE:DT60M

WIND SPEED (MPH)

WIND DIRECTION	1-3	4-7	8-12	13-18	19-24	>24	TOTAL
N	15	31	4	0	0	0	50
NNE	11	8	1	0	0	0	20
NE	10	8	1	0	0	0	19
ENE	2	6	1	0	0	0	9
E	5	25	27	0	0	0	57
ESE	8	22	1	0	0	0	31
SE	11	3	0	0	0	0	14
SSE	6	4	0	0	0	0	10
S	2	10	16	7	0	0	35
SSW	2	11	23	5	0	0	41
SW	8	15	16	2	0	0	41
WSW	5	9	9	0	0	0	23
W	5	12	16	1	0	0	34
WNW	6	15	3	0	0	0	24
NW	6	13	15	0	0	0	34
NNW	11	24	6	0	0	0	47
TOTAL	113	216	139	15	0	0	483

PERIODS OF CALM(HOURS): 11
VARIABLE DIRECTION: 0
HOURS OF MISSING DATA: 2

SITE: AEP COOK

HOURS AT EACH WIND SPEED AND DIRECTION

PERIOD OF RECORD: 4/1/07 - 6/30/07
STABILITY CLASS: E DT/DZ
ELEVATION: SPEED:SP10M DIRECTION:DIR10M LAPSE:DT60M

WIND SPEED (MPH)

WIND DIRECTION	1-3	4-7	8-12	13-18	19-24	>24	TOTAL
N	12	11	2	0	0	0	25
NNE	11	3	0	0	0	0	14
NE	12	2	1	0	0	0	15
ENE	12	13	4	0	0	0	29
E	20	19	5	0	0	0	44
ESE	19	17	4	0	0	0	40
SE	19	13	1	0	0	0	33
SSE	11	18	0	0	0	0	29
S	12	35	2	0	0	0	49
SSW	8	11	5	0	0	0	24
SW	12	11	7	0	0	0	30
WSW	5	3	6	0	0	0	14
W	7	4	0	0	0	0	11
WNW	3	1	0	0	0	0	4
NW	4	1	0	0	0	0	5
NNW	11	17	0	0	0	0	28
TOTAL	178	179	37	0	0	0	394

PERIODS OF CALM(HOURS): 11
VARIABLE DIRECTION: 0
HOURS OF MISSING DATA: 2

SITE: AEP COOK

HOURS AT EACH WIND SPEED AND DIRECTION

PERIOD OF RECORD: 4/1/07 - 6/30/07
STABILITY CLASS: F DT/DZ
ELEVATION: SPEED:SP10M DIRECTION:DIR10M LAPSE:DT60M

WIND SPEED (MPH)

WIND DIRECTION	1-3	4-7	8-12	13-18	19-24	>24	TOTAL
N	2	0	0	0	0	0	2
NNE	2	1	0	0	0	0	3
NE	14	1	0	0	0	0	15
ENE	18	0	0	0	0	0	18
E	17	2	0	0	0	0	19
ESE	14	1	0	0	0	0	15
SE	17	2	0	0	0	0	19
SSE	22	9	0	0	0	0	31
S	12	10	0	0	0	0	22
SSW	8	0	0	0	0	0	8
SW	8	0	0	0	0	0	8
WSW	2	1	0	0	0	0	3
W	3	0	0	0	0	0	3
WNW	4	0	0	0	0	0	4
NW	5	0	0	0	0	0	5
NNW	4	0	0	0	0	0	4
TOTAL	152	27	0	0	0	0	179

PERIODS OF CALM(HOURS): 11
VARIABLE DIRECTION: 0
HOURS OF MISSING DATA: 2

SITE: AEP COOK

HOURS AT EACH WIND SPEED AND DIRECTION

PERIOD OF RECORD: 4/1/07 - 6/30/07
STABILITY CLASS: G DT/DZ
ELEVATION: SPEED:SP10M DIRECTION:DIR10M LAPSE:DT60M

WIND SPEED (MPH)

WIND DIRECTION	1-3	4-7	8-12	13-18	19-24	>24	TOTAL
N	5	0	0	0	0	0	5
NNE	3	0	0	0	0	0	3
NE	8	0	0	0	0	0	8
ENE	27	1	0	0	0	0	28
E	45	0	0	0	0	0	45
ESE	27	0	0	0	0	0	27
SE	33	0	0	0	0	0	33
SSE	30	0	0	0	0	0	30
S	22	1	0	0	0	0	23
SSW	11	0	0	0	0	0	11
SW	8	0	0	0	0	0	8
WSW	6	0	0	0	0	0	6
W	4	0	0	0	0	0	4
WNW	4	0	0	0	0	0	4
NW	6	0	0	0	0	0	6
NNW	2	0	0	0	0	0	2
TOTAL	241	2	0	0	0	0	243

PERIODS OF CALM(HOURS): 11
VARIABLE DIRECTION: 0
HOURS OF MISSING DATA: 2

SITE: AEP COOK

HOURS AT EACH WIND SPEED AND DIRECTION

PERIOD OF RECORD: 4/1/07 - 6/30/07
STABILITY CLASS: ALL DT/DZ
ELEVATION: SPEED:SP10M DIRECTION:DIR10M LAPSE:DT60M

WIND DIRECTION	WIND SPEED (MPH)						TOTAL
	1-3	4-7	8-12	13-18	19-24	>24	
N	48	103	11	0	0	0	162
NNE	30	22	3	0	0	0	55
NE	48	25	3	0	0	0	76
ENE	62	34	16	0	0	0	112
E	90	71	46	0	0	0	207
ESE	75	60	14	0	0	0	149
SE	89	38	7	0	0	0	134
SSE	80	65	5	0	0	0	150
S	59	103	45	15	0	0	222
SSW	32	34	41	17	0	0	124
SW	40	57	46	4	0	0	147
WSW	20	45	24	1	0	0	90
W	25	46	26	1	0	0	98
WNW	22	50	18	1	0	0	91
NW	41	51	40	0	0	0	132
NNW	49	161	12	0	0	0	222
TOTAL	810	965	357	39	0	0	2171

PERIODS OF CALM(HOURS): 11
VARIABLE DIRECTION: 0
HOURS OF MISSING DATA: 2

SITE: AEP COOK

HOURS AT EACH WIND SPEED AND DIRECTION

PERIOD OF RECORD: 7/1/07 - 9/30/07
STABILITY CLASS: A DT/DZ
ELEVATION: SPEED:SP10M DIRECTION:DIR10M LAPSE:DT60M

WIND SPEED (MPH)

WIND DIRECTION	1-3	4-7	8-12	13-18	19-24	>24	TOTAL
N	19	63	3	0	0	0	85
NNE	4	3	0	0	0	0	7
NE	2	3	0	0	0	0	5
ENE	1	5	0	0	0	0	6
E	4	7	0	0	0	0	11
ESE	8	9	0	0	0	0	17
SE	4	7	0	0	0	0	11
SSE	3	17	0	0	0	0	20
S	4	45	10	0	0	0	59
SSW	1	17	13	0	0	0	31
SW	1	43	30	0	0	0	74
WSW	2	33	3	0	0	0	38
W	10	32	0	0	0	0	42
WNW	14	27	0	0	0	0	41
NW	21	27	0	0	0	0	48
NNW	41	79	0	0	0	0	120
TOTAL	139	417	59	1	0	0	615

PERIODS OF CALM(HOURS): 43
VARIABLE DIRECTION: 0
HOURS OF MISSING DATA: 0

SITE: AEP COOK

HOURS AT EACH WIND SPEED AND DIRECTION

PERIOD OF RECORD: 7/1/07 - 9/30/07
STABILITY CLASS: B DT/DZ
ELEVATION: SPEED:SP10M DIRECTION:DIR10M LAPSE:DT60M

WIND SPEED (MPH)

WIND DIRECTION	1-3	4-7	8-12	13-18	19-24	>24	TOTAL
N	2	7	0	0	0	0	9
NNE	0	0	0	0	0	0	0
NE	0	1	0	0	0	0	1
ENE	1	0	0	0	0	0	1
E	4	2	0	0	0	0	6
ESE	2	1	0	0	0	0	3
SE	0	0	0	0	0	0	0
SSE	4	2	0	0	0	0	6
S	0	10	2	0	0	0	12
SSW	1	5	9	0	0	0	15
SW	0	7	2	0	0	0	9
WSW	0	2	0	0	0	0	2
W	1	2	2	0	0	0	5
WNW	1	1	0	0	0	0	2
NW	2	0	0	0	0	0	2
NNW	3	0	0	0	0	0	3
TOTAL	21	40	15	0	0	0	76

PERIODS OF CALM(HOURS): 43
VARIABLE DIRECTION: 0
HOURS OF MISSING DATA: 0

SITE: AEP COOK

HOURS AT EACH WIND SPEED AND DIRECTION

PERIOD OF RECORD: 7/1/07 - 9/30/07
STABILITY CLASS: C DT/DZ
ELEVATION: SPEED:SP10M DIRECTION:DIR10M LAPSE:DT60M

WIND SPEED (MPH)

WIND DIRECTION	1-3	4-7	8-12	13-18	19-24	>24	TOTAL
N	1	4	0	0	0	0	5
NNE	0	0	0	0	0	0	0
NE	0	0	0	0	0	0	0
ENE	2	0	0	0	0	0	2
E	2	0	0	0	0	0	2
ESE	1	1	0	0	0	0	2
SE	5	2	0	0	0	0	7
SSE	1	2	0	0	0	0	3
S	3	5	1	0	0	0	9
SSW	1	7	4	0	0	0	12
SW	0	5	0	0	0	0	5
WSW	2	2	0	0	0	0	4
W	7	0	0	0	0	0	7
WNW	6	0	0	0	0	0	6
NW	5	0	0	0	0	0	5
NNW	5	2	0	0	0	0	7
TOTAL	41	30	5	0	0	0	76

PERIODS OF CALM(HOURS): 43
VARIABLE DIRECTION: 0
HOURS OF MISSING DATA: 0

SITE: AEP COOK

HOURS AT EACH WIND SPEED AND DIRECTION

PERIOD OF RECORD: 7/1/07 - 9/30/07
STABILITY CLASS: D DT/DZ
ELEVATION: SPEED:SP10M DIRECTION:DIR10M LAPSE:DT60M

WIND DIRECTION	WIND SPEED (MPH)						TOTAL
	1-3	4-7	8-12	13-18	19-24	>24	
N	22	18	0	0	0	0	40
NNE	4	0	0	0	0	0	4
NE	6	0	0	0	0	0	6
ENE	6	3	0	0	0	0	9
E	6	3	0	0	0	0	9
ESE	15	1	0	0	0	0	16
SE	2	2	0	0	0	0	4
SSE	3	3	0	0	0	0	6
S	4	22	18	2	0	0	46
SSW	4	36	7	0	0	0	47
SW	5	12	8	0	0	0	25
WSW	3	4	0	0	0	0	7
W	11	4	0	0	0	0	15
WNW	6	0	0	0	0	0	6
NW	9	1	0	0	0	0	10
NNW	22	12	1	0	0	0	35
TOTAL	128	121	34	2	0	0	285

PERIODS OF CALM(HOURS): 43
VARIABLE DIRECTION: 0
HOURS OF MISSING DATA: 0

SITE: AEP COOK

HOURS AT EACH WIND SPEED AND DIRECTION

PERIOD OF RECORD: 7/1/07 - 9/30/07
STABILITY CLASS: E DT/DZ
ELEVATION: SPEED:SP10M DIRECTION:DIR10M LAPSE:DT60M

WIND DIRECTION	WIND SPEED (MPH)						TOTAL
	1-3	4-7	8-12	13-18	19-24	>24	
N	34	21	0	0	0	0	55
NNE	27	1	0	0	0	0	28
NE	22	1	0	0	0	0	23
ENE	16	6	0	0	0	0	22
E	12	15	0	0	0	0	27
ESE	26	17	0	0	0	0	43
SE	19	7	0	0	0	0	26
SSE	28	14	0	0	0	0	42
S	28	59	4	0	0	0	91
SSW	17	20	10	2	0	0	49
SW	6	31	2	0	0	0	39
WSW	6	15	0	0	0	0	21
W	11	3	0	0	0	0	14
WNW	6	5	0	0	0	0	11
NW	9	6	0	0	0	0	15
NNW	19	6	0	0	0	0	25
TOTAL	286	227	16	2	0	0	450

PERIODS OF CALM(HOURS): 43
VARIABLE DIRECTION: 0
HOURS OF MISSING DATA: 0

SITE: AEP COOK

HOURS AT EACH WIND SPEED AND DIRECTION

PERIOD OF RECORD: 7/1/07 - 9/30/07
STABILITY CLASS: F DT/DZ
ELEVATION: SPEED:SP10M DIRECTION:DIR10M LAPSE:DT60M

WIND SPEED (MPH)

WIND DIRECTION	1-3	4-7	8-12	13-18	19-24	>24	TOTAL
N	3	0	0	0	0	0	3
NNE	7	0	0	0	0	0	7
NE	20	0	0	0	0	0	20
ENE	13	0	0	0	0	0	13
E	15	0	0	0	0	0	15
ESE	33	1	0	0	0	0	34
SE	21	0	0	0	0	0	21
SSE	30	0	0	0	0	0	30
S	32	10	1	0	0	0	43
SSW	11	5	0	0	0	0	16
SW	9	3	1	0	0	0	13
WSW	7	1	0	0	0	0	8
W	3	0	0	0	0	0	3
WNW	2	0	0	0	0	0	2
NW	4	0	0	0	0	0	4
NNW	2	0	0	0	0	0	2
TOTAL	212	20	2	0	0	0	234

PERIODS OF CALM(HOURS): 43
VARIABLE DIRECTION: 0
HOURS OF MISSING DATA: 0

SITE: AEP COOK

HOURS AT EACH WIND SPEED AND DIRECTION

PERIOD OF RECORD: 7/1/07 - 9/30/07
STABILITY CLASS: G DT/DZ
ELEVATION: SPEED:SP10M DIRECTION:DIR10M LAPSE:DT60M

WIND SPEED (MPH)

WIND DIRECTION	1-3	4-7	8-12	13-18	19-24	>24	TOTAL
N	5	0	0	0	0	0	7
NNE	4	0	0	0	0	0	4
NE	12	0	0	0	0	0	12
ENE	42	0	0	0	0	0	42
E	47	0	0	0	0	0	47
ESE	47	0	0	0	0	0	47
SE	41	0	0	0	0	0	41
SSE	42	0	0	0	0	0	42
S	45	1	0	0	0	0	46
SSW	38	0	0	0	0	0	38
SW	6	0	0	0	0	0	6
WSW	6	0	0	0	0	0	6
W	4	0	0	0	0	0	4
WNW	3	0	0	0	0	0	3
NW	3	0	0	0	0	0	3
NNW	2	0	0	0	0	0	2
TOTAL	347	1	0	0	0	0	348

PERIODS OF CALM(HOURS): 43
VARIABLE DIRECTION: 0
HOURS OF MISSING DATA: 0

SITE: AEP COOK

HOURS AT EACH WIND SPEED AND DIRECTION

PERIOD OF RECORD: 7/1/07 - 9/30/07
STABILITY CLASS: ALL DT/DZ
ELEVATION: SPEED:SP10M DIRECTION:DIR10M LAPSE:DT60M

WIND SPEED (MPH)

WIND DIRECTION	1-3	4-7	8-12	13-18	19-24	>24	TOTAL
N	86	113	3	0	0	0	202
NNE	46	4	0	0	0	0	50
NE	62	5	0	0	0	0	67
ENE	81	14	0	0	0	0	95
E	90	27	0	0	0	0	117
ESE	132	30	0	0	0	0	162
SE	92	18	0	0	0	0	110
SSE	111	38	0	0	0	0	149
S	116	152	36	2	0	0	306
SSW	73	90	43	2	0	0	208
SW	27	101	43	0	0	0	171
WSW	26	57	3	0	0	0	86
W	47	41	2	0	0	0	90
WNW	38	33	0	0	0	0	71
NW	53	34	0	0	0	0	87
NNW	94	99	1	0	0	0	194
TOTAL	1174	856	131	4	0	0	2165

PERIODS OF CALM(HOURS): 43
VARIABLE DIRECTION: 0
HOURS OF MISSING DATA: 0

SITE: AEP COOK

HOURS AT EACH WIND SPEED AND DIRECTION

PERIOD OF RECORD: 10/1/07 - 12/31/07
STABILITY CLASS: A DT/DZ
ELEVATION: SPEED:SP10M DIRECTION:DIR10M LAPSE:DT60M

WIND DIRECTION	WIND SPEED (MPH)						TOTAL
	1-3	4-7	8-12	13-18	19-24	>24	
N	2	11	9	0	0	0	22
NNE	0	5	2	0	0	0	7
NE	1	2	1	0	0	0	4
ENE	0	8	5	0	0	0	13
E	1	7	0	0	0	0	8
ESE	5	13	0	0	0	0	18
SE	4	19	1	1	0	0	25
SSE	1	27	9	0	0	0	37
S	0	17	20	8	0	0	45
SSW	1	6	6	0	0	0	13
SW	1	20	15	0	0	0	36
WSW	1	15	5	1	0	0	22
W	3	10	4	0	0	0	17
WNW	2	8	2	0	0	0	12
NW	2	9	8	0	0	0	19
NNW	1	10	2	0	0	0	13
TOTAL	25	187	89	10	0	0	311

PERIODS OF CALM(HOURS): 2
VARIABLE DIRECTION: 0
HOURS OF MISSING DATA: 32

SITE: AEP COOK

HOURS AT EACH WIND SPEED AND DIRECTION

PERIOD OF RECORD: 10/1/07 - 12/31/07
STABILITY CLASS: B DT/DZ
ELEVATION: SPEED:SP10M DIRECTION:DIR10M LAPSE:DT60M

WIND DIRECTION	WIND SPEED (MPH)						TOTAL
	1-3	4-7	8-12	13-18	19-24	>24	
N	0	2	0	0	0	0	2
NNE	0	3	0	0	0	0	3
NE	0	1	0	0	0	0	1
ENE	0	1	0	0	0	0	1
E	2	3	0	0	0	0	5
ESE	1	2	0	0	0	0	3
SE	2	9	0	0	0	0	11
SSE	1	8	2	1	0	0	12
S	0	13	3	0	0	0	16
SSW	0	4	5	5	0	0	14
SW	0	7	2	5	0	0	14
WSW	2	10	3	0	0	0	15
W	1	2	2	0	0	0	5
WNW	2	2	2	0	0	0	6
NW	2	2	2	0	0	0	6
NNW	4	8	0	0	0	0	12
TOTAL	17	77	21	11	0	0	126

PERIODS OF CALM(HOURS): 2
VARIABLE DIRECTION: 0
HOURS OF MISSING DATA: 32

SITE: AEP COOK

HOURS AT EACH WIND SPEED AND DIRECTION

PERIOD OF RECORD: 10/1/07 - 12/31/07
STABILITY CLASS: C DT/DZ
ELEVATION: SPEED:SP10M DIRECTION:DIR10M LAPSE:DT60M

WIND SPEED (MPH)

WIND DIRECTION	1-3	4-7	8-12	13-18	19-24	>24	TOTAL
N	2	3	0	0	0	0	5
NNE	0	4	0	0	0	0	4
NE	1	4	0	0	0	0	5
ENE	1	12	0	0	0	0	13
E	5	5	1	0	0	0	11
ESE	2	7	2	0	0	0	11
SE	1	2	1	0	0	0	4
SSE	0	9	2	1	0	0	12
S	1	12	2	2	0	0	17
SSW	0	2	1	2	0	0	5
SW	0	10	5	4	3	0	22
WSW	1	5	8	2	2	0	18
W	1	6	3	0	0	0	10
WNW	2	8	5	0	0	0	15
NW	1	3	3	0	0	0	7
NNW	5	4	3	0	0	0	12
TOTAL	23	96	36	11	5	0	171

PERIODS OF CALM(HOURS): 2
VARIABLE DIRECTION: 0
HOURS OF MISSING DATA: 32

SITE: AEP COOK

HOURS AT EACH WIND SPEED AND DIRECTION

PERIOD OF RECORD: 10/1/07 - 12/31/07
STABILITY CLASS: D DT/DZ
ELEVATION: SPEED:SP10M DIRECTION:DIR10M LAPSE:DT60M

WIND SPEED (MPH)

WIND DIRECTION	1-3	4-7	8-12	13-18	19-24	>24	TOTAL
N	13	30	9	0	0	0	52
NNE	7	21	2	0	0	0	30
NE	13	33	1	0	0	0	47
ENE	10	33	1	0	0	0	44
E	29	16	0	0	0	0	45
ESE	20	27	3	0	0	0	50
SE	18	45	11	5	0	0	79
SSE	14	51	11	1	0	0	77
S	6	58	31	7	0	0	102
SSW	5	24	36	3	0	0	68
SW	7	11	24	9	1	0	52
WSW	1	8	35	8	2	0	54
W	5	15	17	1	0	0	38
WNW	2	29	18	5	0	0	54
NW	5	65	36	1	0	0	107
NNW	7	40	11	0	0	0	58
TOTAL	162	506	246	40	3	0	957

PERIODS OF CALM(HOURS): 2
VARIABLE DIRECTION: 0
HOURS OF MISSING DATA: 32

SITE: AEP COOK

HOURS AT EACH WIND SPEED AND DIRECTION

PERIOD OF RECORD: 10/1/07 - 12/31/07
STABILITY CLASS: E DT/DZ
ELEVATION: SPEED:SP10M DIRECTION:DIR10M LAPSE:DT60M

WIND SPEED (MPH)

WIND DIRECTION	1-3	4-7	8-12	13-18	19-24	>24	TOTAL
N	7	15	1	0	0	0	23
NNE	3	12	2	0	0	0	17
NE	4	10	0	0	0	0	14
ENE	13	1	0	0	0	0	14
E	20	2	0	0	0	0	22
ESE	19	8	0	0	0	0	27
SE	26	16	0	0	0	0	42
SSE	17	32	3	0	0	0	52
S	12	59	18	1	0	0	90
SSW	1	6	2	1	0	0	10
SW	2	3	2	0	0	0	7
WSW	0	6	0	0	0	0	6
W	0	4	1	0	0	0	5
WNW	2	3	2	0	0	0	7
NW	3	5	1	0	0	0	9
NNW	5	14	2	0	0	0	21
TOTAL	134	196	34	2	0	0	366

PERIODS OF CALM(HOURS): 2
VARIABLE DIRECTION: 0
HOURS OF MISSING DATA: 32

SITE: AEP COOK

HOURS AT EACH WIND SPEED AND DIRECTION

PERIOD OF RECORD: 10/1/07 - 12/31/07
STABILITY CLASS: F DT/DZ
ELEVATION: SPEED:SP10M DIRECTION:DIR10M LAPSE:DT60M

WIND DIRECTION	WIND SPEED (MPH)						TOTAL
	1-3	4-7	8-12	13-18	19-24	>24	
N	4	0	0	0	0	0	4
NNE	4	0	0	0	0	0	4
NE	2	0	0	0	0	0	2
ENE	6	0	0	0	0	0	6
E	9	0	0	0	0	0	9
ESE	10	0	0	0	0	0	10
SE	13	0	1	0	0	0	14
SSE	24	7	1	0	0	0	32
S	22	3	0	0	0	0	25
SSW	6	1	0	0	0	0	7
SW	3	1	0	0	0	0	4
WSW	0	0	0	0	0	0	0
W	0	0	0	0	0	0	0
WNW	0	0	0	0	0	0	0
NW	0	0	0	0	0	0	0
NNW	1	0	0	0	0	0	1
TOTAL	104	12	2	0	0	0	118

PERIODS OF CALM(HOURS): 2
VARIABLE DIRECTION: 0
HOURS OF MISSING DATA: 32

SITE: AEP COOK

HOURS AT EACH WIND SPEED AND DIRECTION

PERIOD OF RECORD: 10/1/07 - 12/31/07
STABILITY CLASS: G DT/DZ
ELEVATION: SPEED:SP10M DIRECTION:DIR10M LAPSE:DT60M

WIND SPEED (MPH)

WIND DIRECTION	1-3	4-7	8-12	13-18	19-24	>24	TOTAL
N	0	0	0	0	0	0	0
NNE	0	0	0	0	0	0	0
NE	4	0	0	0	0	0	4
ENE	9	0	0	0	0	0	9
E	15	0	0	0	0	0	15
ESE	7	0	0	0	0	0	7
SE	32	0	0	0	0	0	32
SSE	30	0	0	0	0	0	30
S	22	3	0	0	0	0	25
SSW	2	0	0	0	0	0	2
SW	0	0	0	0	0	0	0
WSW	0	0	0	0	0	0	0
W	0	0	0	0	0	0	0
WNW	1	0	0	0	0	0	1
NW	0	0	0	0	0	0	0
NNW	0	0	0	0	0	0	0
TOTAL	122	3	0	0	0	0	125

PERIODS OF CALM(HOURS): 2
VARIABLE DIRECTION: 0
HOURS OF MISSING DATA: 32

SITE: AEP COOK

HOURS AT EACH WIND SPEED AND DIRECTION

PERIOD OF RECORD: 10/1/07 - 12/31/07
STABILITY CLASS: ALL DT/DZ
ELEVATION: SPEED:SP10M DIRECTION:DIR10M LAPSE:DT60M

WIND SPEED (MPH)

WIND DIRECTION	1-3	4-7	8-12	13-18	19-24	>24	TOTAL
N	28	61	19	0	0	0	108
NNE	14	45	6	0	0	0	65
NE	25	50	2	0	0	0	77
ENE	39	55	6	0	0	0	100
E	81	33	1	0	0	0	115
ESE	64	57	5	0	0	0	126
SE	96	91	14	6	0	0	207
SSE	87	134	28	3	0	0	252
S	63	165	74	18	0	0	320
SSW	15	43	50	11	0	0	119
SW	13	52	48	18	4	0	135
WSW	5	44	51	11	4	0	115
W	10	37	27	1	0	0	75
WNW	11	50	29	5	0	0	95
NW	13	84	50	1	0	0	148
NNW	23	76	18	0	0	0	117
TOTAL	587	1077	428	74	8	0	2174

PERIODS OF CALM(HOURS): 2
VARIABLE DIRECTION: 0
HOURS OF MISSING DATA: 32
Hours are not adjusted for Daylight Savings Time