

DUQUESNE LIGHT COMPANY  
Beaver Valley Power Station  
Unit 1 & Unit 2

Semi-Annual  
Radioactive Effluent Release Report  
For The 6-Month Period:  
July 1, 1992 thru December 31, 1992

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Vice President - Nuclear Group

44121 393 5285

February 22, 1993  
NPD3SVP:7260U. S. Nuclear Regulatory Commission  
Attn: Document Control Desk  
Washington, DC 20555

Subject: Beaver Valley Power Station, Unit No. 1 and No. 2  
BV-1 Docket No. 50-334, License No. DPR-66  
BV-2 Docket No. 50-412, License No. NPF-73  
Semi-Annual Radioactive Effluent Release Report For The Second Six  
Months Of 1992

- Ref: 1) USNRC RG 1.21 Revision 1, June, 1974, 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
- 2) Beaver Valley Power Station Unit 1 And Unit 2 Technical  
Specifications 6.9.1.12 and 6.9.1.13, Semi-Annual  
Radioactive Effluent Release Report

Gentlemen:

The Semi-Annual Radioactive Effluent Release Report is hereby submitted in accordance with the requirements of Technical Specifications 6.9.1.12 and 6.9.1.13 for Beaver Valley Power Station Unit 1 license DPR-66 and Beaver Valley Power Station Unit 2 license NPF-73. This report contains the information required by USNRC Regulatory Guide 1.21 Revision 1 and the Technical Specifications.

This report is considered a single submittal for the two unit site. This report combines those sections that are common to both units at the site. However, where the two units have separate radwaste systems, the report does specify the releases of radioactive material from each unit. In reference to this, Unit 1 and Unit 2 have shared radwaste systems for gaseous elevated releases and for liquid releases. The report format is summarized on the index.

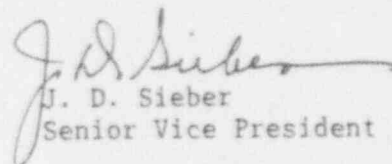
There was one abnormal gaseous release during the report period, it occurred on October 22, 1992. Although the release was unplanned, it was determined to be within the Radiological Effluent Technical Specification/Offsite Dose Calculation Manual Release Limits, and no reportings were required per 10 CFR 50.72, 10 CFR 50.73, 10 CFR 20.403, 10 CFR 20.405, and 40 CFR 302.6. The release involved the loss of 207 cubic feet of gas from the Unit 2 Gaseous Waste Surge Tank via a leaky fitting on the oxygen analyzer. The total discharge activity of  $9.44E-3$  curies was comprised of 99% Kr-85 and less than 1% each of Xe-133 and H-3. This event is documented in Beaver Valley Power Station Incident Report No. 2-92-078.

050027

JEH8/11

If there are any questions concerning this report, please contact  
Mr. A. T. Lonnett at 412-393-5860.

Sincerely,

  
J. D. Sieber  
Senior Vice President

ATL/laf

cc: United States Nuclear Regulatory Commission  
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DUQUESNE LIGHT COMPANY  
Beaver Valley Power Station  
Unit 1 & Unit 2

Semi- Annual Radioactive Effluent Release Report  
For The 6-Month Period:  
July 1, 1992 thru December 31, 1992

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2nd Half - 1992

SEMI-ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT  
 SUPPLEMENTAL INFORMATION PAGE

FACILITY: B.V.P.S. Units 1 and 2

LICENSEE: Duquesne Light Company

1. Regulatory Limits

- a. Fission and activation gases: \*\*\*\*\*
- b. Iodines: \*
- c. Particulates, half-lives > 8 days: \*\*\*\*\* Technical Specifications, Article 3/4.11
- d. Liquid effluents: \*\*\*\*\*

2. Maximum Permissible Concentrations

Provide the MPC's used in determining allowable release rates or concentrations.

- a. Fission and activation gases: \*\*\*\*\*
- b. Iodines: \*
- c. Particulates, half-lives > 8 days: \*\*\*\*\* 10 CFR 20 Appendix B, Table II
- d. Liquid effluents: \*\*\*\*\*

3. Average Energy

Provide the average energy (E) of the radionuclide mixture in release of fission and activation gases, if applicable: ... NOT APPLICABLE

4. Measurements and Approximations of Total Radioactivity

Provide the methods used to measure or approximate the total radioactivity in effluents and the methods used to determine radionuclide composition.

- a. Fission and activation gases: Ge Gamma Spectrometry, Liquid Scintillation Counter
- b. Iodines: Ge Gamma Spectrometry
- c. Particulates, half-lives > 8 days: Ge Gamma Spectrometry, Low Background Proportional Counter
- d. Liquid effluents: Ge Gamma Spectrometry, Low Background Proportional Counter, Liquid Scintillation Counter

5. Batch Releases

Provide the following information relating to batch releases of radioactive materials in liquid and gaseous effluents.

a. Liquid	3rd Quarter	4th Quarter
1. Number of batch releases:	44	32
2. Total time period for batch releases:	13981 minutes	10455 minutes
3. Maximum time period for a batch release:	1110 minutes	1160 minutes
4. Average time period for batch releases:	318 minutes	327 minutes
5. Minimum time period for a batch release:	57 minutes	55 minutes
6. Average river flow during periods of release:	32067 cuft/sec	42533 cuft/sec

b. Gaseous	3rd Quarter	4th Quarter
1. Number of batch releases:	3	19
2. Total time period for batch releases:	10405 minutes	18444 minutes
3. Maximum time period for a batch release:	8640 minutes	6549 minutes
4. Average time period for batch releases:	3468 minutes	971 minutes
5. Minimum time period for a batch release:	840 minutes	4 minutes

6. Abnormal Releases

a. Liquid	3rd Quarter	4th Quarter
1. Number of releases:	NONE	NONE
2. Total activity released:	0.00E+00 Curies	0.00E+00 Curies

b. Gaseous	3rd Quarter	4th Quarter
1. Number of releases:	NONE	1
2. Total activity released:	0.00E+00 Curies	9.44E-03 Curies

TABLE 1A  
2nd Half - 1992  
SEMI-ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT  
GASEOUS EFFLUENTS - SUMMATION OF ALL RELEASES

	Unit	3rd Quarter	4th Quarter	Est. total Error, %
--	------	----------------	----------------	------------------------

A. Fission & Activation Gases

1. Total release	Ci	6.01E+01	6.32E+01	2.65E+01
2. Average release rate for period	uCi/sec	7.63E+00	8.03E+00	*****
3. Percent of technical specification limit	%	N/A	N/A	*****

B. Iodines

1. Total iodine - 131	Ci	4.95E-06	4.75E-04	2.83E+01
2. Average release rate for period	uCi/sec	6.29E-07	6.02E-05	*****
3. Percent of technical specification limit	%	N/A	N/A	*****

C. Particulates

1. Particulates with half-lives > 8 days	Ci	4.80E-06	7.31E-04	3.00E+01
2. Average release rate for period	uCi/sec	6.09E-07	9.27E-05	*****
3. Percent of technical specification limit	%	N/A	N/A	*****
4. Gross alpha radioactivity	Ci	8.28E-07	5.31E-07	*****

D. Tritium

1. Total release	Ci	9.72E+01	6.39E+01	3.29E+01
2. Average release rate for period	uCi/sec	1.23E+01	8.11E+00	*****
3. Percent of technical specification limit	%	N/A	N/A	*****

N/A = NOT APPLICABLE

The amount of time (in seconds) used to calculate the release rates specified in A.2, B.2, C.2 and D.2 is the average amount of seconds per calendar quarter (7.88E+6 seconds).

TABLE 1B

2nd Half - 1992

SEMI-ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

GASROUS EFFLUENTS - ELEVATED RELEASES

		CONTINUOUS MODE		BATCH MODE	
Nuclides released	Unit	3rd Quarter	4th Quarter	3rd Quarter	4th Quarter
1. Fission gases					
argon-41	Ci	LLD	LLD	LLD	2.35E-03
krypton-85	Ci	3.36E+00	LLD	4.75E-02	3.86E+00
krypton-85m	Ci	LLD	LLD	LLD	4.05E-03
krypton-88	Ci	LLD	LLD	LLD	5.13E-04
xenon-131m	Ci	LLD	1.09E-01	LLD	8.92E-02
xenon-133	Ci	5.18E-02	1.33E+00	1.84E-04	9.38E-01
xenon-133m	Ci	LLD	LLD	LLD	2.19E-04
xenon-135	Ci	LLD	3.24E-02	LLD	LLD
unidentified	Ci	NONE	NONE	NONE	NONE
Total for period	Ci	3.41E+00	1.47E+00	4.77E-02	4.89E+00
2. Iodines					
iodine-131	Ci	7.75E-07	2.04E-05	LLD	LLD
iodine-133	Ci	LLD	LLD	LLD	LLD
iodine-135	Ci	LLD	LLD	LLD	LLD
Total for period	Ci	7.75E-07	2.04E-05	0.00E+00	0.00E+00
3. Particulates					
manganese-54	Ci	LLD	LLD	LLD	6.43E-05
rubidium-88d	Ci	LLD	LLD	LLD	2.84E-04
unidentified	Ci	NONE	NONE	NONE	NONE
Total for period	Ci	0.00E+00	0.00E+00	0.00E+00	3.48E-04

LLD = Below the lower limit of detectability, in uCi/cc (Table 4).

TABLE 1C-1

2nd Half - 1992

SEMI-ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

GASEOUS EFFLUENTS - GROUND-LEVEL RELEASES

		CONTINUOUS MODE		BATCH MODE	
Nuclides released	Unit	3rd Quarter	4th Quarter	3rd Quarter	4th Quarter
1. Fission gases					
krypton-85	Ci	7.62E-01	1.93E+00	NR	2.09E+00
xenon-131m	Ci	LLD	LLD	NR	1.28E-03
xenon-133	Ci	3.49E+01	1.84E+01	NR	2.97E+00
xenon-133m	Ci	LLD	LLD	NR	3.01E-05
xenon-135	Ci	2.20E+00	1.16E+01	NR	4.45E-03
unidentified	Ci	NONE	NONE	NR	LLD
Total for period	Ci	3.79E+01	3.19E+01	0.00E+00	5.07E+00
2. Iodines					
iodine-131	Ci	4.18E-06	3.83E-04	NR	4.45E-05
iodine-133	Ci	LLD	2.55E-05	NR	1.84E-05
iodine-135	Ci	LLD	LLD	NR	LLD
Total for period	Ci	4.18E-06	4.09E-04	0.00E+00	6.29E-05
3. Particulates					
cobalt-58	Ci	LLD	3.73E-04	NR	LLD
molybdenum-99	Ci	1.45E-06	LLD	NR	LLD
technetium-99m	Ci	1.42E-06	LLD	NR	LLD
cerium-141	Ci	1.93E-06	LLD	NR	LLD
unidentified	Ci	NONE	NONE	NR	LLD
Total for period	Ci	4.80E-06	3.73E-04	0.00E+00	0.00E+00

LLD - Below the lower limit of detectability, in uCi/cc (Table 4).

NR - No Releases this period



TABLE 1C-2

2nd Half - 1992

## SEMI-ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

## GASROUS EFFLUENTS - GROUND-LEVEL RELEASES

Nuclides released	Unit	CONTINUOUS MODE		BATCH MODE	
		3rd Quarter	4th Quarter	3rd Quarter	4th Quarter
1. Fission gases					
krypton-85	Ci	3.45E+00	5.58E-01	NR	1.45E-02
krypton-85m	Ci	LLD	7.94E-03	NR	1.11E-02
krypton-87	Ci	LLD	LLD	NR	7.40E-03
krypton-88	Ci	LLD	LLD	NR	2.19E-02
xenon-131m	Ci	LLD	LLD	NR	7.40E-04
xenon-133	Ci	1.45E+01	1.52E+01	NR	2.10E-01
xenon-133m	Ci	LLD	LLD	NR	5.24E-03
xenon-135	Ci	8.42E-01	3.81E+00	NR	2.62E-02
xenon-135m	Ci	LLD	LLD	NR	1.85E-03
xenon-138	Ci	LLD	LLD	NR	6.48E-03
unidentified	Ci	NONE	NONE	NR	NONE
Total for period	Ci	1.88E+01	1.96E+01	0.00E+00	3.05E-01
2. Iodines					
iodine-131	Ci	LLD	LLD	NR	2.68E-05
iodine-133	Ci	LLD	LLD	NR	LLD
iodine-135	Ci	LLD	LLD	NR	LLD
Total for period	Ci	0.00E+00	0.00E+00	0.00E+00	2.68E-05
3. Particulates					
manganese-54	Ci	LLD	LLD	NR	1.05E-06
iron-59	Ci	LLD	LLD	NR	3.39E-07
cobalt-58	Ci	LLD	LLD	NR	3.39E-06
cobalt-60	Ci	LLD	LLD	NR	1.57E-06
strontium-89	Ci	LLD	LLD	NR	7.40E-08
strontium-90	Ci	LLD	LLD	NR	1.17E-08
cesium-134	Ci	LLD	LLD	NR	1.05E-06
cesium-137	Ci	LLD	LLD	NR	1.73E-06
unidentified	Ci	NONE	NONE	NR	NONE
Total for period	Ci	0.00E+00	0.00E+00	0.00E+00	9.21E-06

LLD = Below the lower limit of detectability, in uCi/cc (Table 4).

NR = No Releases this period

TABLE 2A  
 2nd Half - 1992  
 SEMI-ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT  
 LIQUID EFFLUENTS - SOMMATION OF ALL RELEASES

	Unit	3rd Quarter	4th Quarter	Est. total Error, %
<b>A. Fission &amp; activation products</b>				
1. Total release (excluding H-3, gases & alpha)	Ci	8.75E-02	4.91E-02	2.60E+01
2. Average diluted concentration during period	uCi/ml	5.44E-08	4.48E-08	*****
3. Percent of applicable limit	%	N/A	N/A	*****
<b>B. Tritium</b>				
1. Total release	Ci	7.82E+01	8.77E+01	2.50E+01
2. Average diluted concentration during period	uCi/ml	4.87E-05	8.01E-05	*****
3. Percent of applicable limit	%	1.62E+00	2.67E+00	*****
<b>C. Dissolved and entrained gases</b>				
1. Total release	Ci	4.00E-03	1.56E-02	2.70E+01
2. Average diluted concentration during period	uCi/ml	2.49E-09	1.42E-08	*****
3. Percent of applicable limit	%	1.25E-03	7.11E-03	*****
<b>D. Gross alpha radioactivity</b>				
1. Total release	Ci	LLD	LLD	2.89E+01
<b>E. Volume of waste released (prior to dilution)</b>				
	liters	2.35E+06	1.53E+06	1.12E+01
<b>F. Volume of dilution water used during period</b>				
	liters	1.60E+09	1.09E+09	2.29E+01

N/A = NOT APPLICABLE                      LLD = Below the lower limit of detectability, in uCi/ml (Table 4).  
 B.3 is based on a limit of 3.00E-3 uCi/ml.                      C.3 is based on a limit of 2.00E-4 uCi/ml.

The values listed at F. are the volumes during the actual liquid waste discharge periods.  
 The total dilution volume for a continuous calendar quarter is approximately 1E+10 liters for BVPS-1 and BVPS-2. (ie; 22,000 GPM is the approximate combined cooling tower blowdown flowrates from the site)

TABLE 2B  
2nd Half - 1992  
SEMI-ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT  
LIQUID EFFLUENTS

		CONTINUOUS MODE		BATCH MODE	
*****					
* Nuclides released	* Unit	* 3rd Quarter	* 4th Quarter	* 3rd Quarter	* 4th Quarter
*****					
1. Fission and activation products					
*****					
* beryllium-7	Ci	N/A	N/A	LLD	LLD
* sodium-24	Ci	N/A	N/A	1.87E-05	2.23E-05
* chromium-51	Ci	N/A	N/A	1.06E-03	LLD
* manganese-54	Ci	N/A	N/A	6.24E-04	4.18E-04
* iron-55	Ci	N/A	N/A	5.50E-02	3.26E-02
* iron-59	Ci	N/A	N/A	1.76E-03	LLD
* cobalt-57	Ci	N/A	N/A	1.90E-05	1.49E-05
* cobalt-58	Ci	N/A	N/A	6.16E-03	2.43E-03
* cobalt-60	Ci	N/A	N/A	1.03E-02	1.01E-02
* zinc-65	Ci	N/A	N/A	LLD	LLD
* strontium-89	Ci	N/A	N/A	5.70E-07	LLD
* strontium-90	Ci	N/A	N/A	LLD	LLD
* zirconium/niobium-95	Ci	N/A	N/A	1.02E-03	9.27E-05
* niobium-97	Ci	N/A	N/A	4.14E-03	6.94E-04
* molybdenum-99	Ci	N/A	N/A	LLD	3.39E-05
* technetium-99m	Ci	N/A	N/A	LLD	4.91E-05
* ruthenium-103	Ci	N/A	N/A	4.46E-05	LLD
* silver-110m	Ci	N/A	N/A	4.34E-03	4.79E-04
* antimony-124	Ci	N/A	N/A	LLD	3.08E-05
* antimony-125	Ci	N/A	N/A	7.99E-04	7.54E-04
* iodine-131	Ci	N/A	N/A	4.93E-05	1.07E-03
* iodine-133	Ci	N/A	N/A	LLD	1.13E-04
* cesium-134	Ci	N/A	N/A	LLD	LLD
* cesium-137	Ci	N/A	N/A	1.36E-04	1.88E-04
* barium/lanthanum-140	Ci	N/A	N/A	LLD	LLD
* cerium-141	Ci	N/A	N/A	LLD	LLD
* cerium-144	Ci	N/A	N/A	LLD	LLD
* unidentified	Ci	N/A	N/A	NONE	NONE
* Total for period	Ci	0.00E+00	0.00E+00	8.75E-02	4.91E-02
*****					

2. Dissolved and entrained gases

*****					
* argon-41	Ci	N/A	N/A	5.03E-04	LLD
* krypton-85	Ci	N/A	N/A	LLD	LLD
* xenon-133	Ci	N/A	N/A	3.45E-03	1.49E-02
* xenon-133m	Ci	N/A	N/A	LLD	2.01E-04
* xenon-135	Ci	N/A	N/A	5.15E-05	4.66E-04
* unidentified	Ci	N/A	N/A	NONE	NONE
* Total for period	Ci	0.00E+00	0.00E+00	4.00E-03	1.56E-02
*****					

LLD = Below the lower limit of detectability, in uCi/ml (Table 4).

N/A = NOT APPLICABLE (liquids not discharged in a continuous mode)

TABLE 3  
2nd Half - 1992  
SPM1-ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT  
SOLID WASTE AND IRRADIATED FUEL SHIPMENTS

A. SOLID WASTE SHIPPED OFFSITE FOR BURIAL OR DISPOSAL (Not irradiated fuel)				
1. Type of Waste	Spent resins, Oil Filter sludges Evap. bottoms (3)	Dry comp. waste Contam. equipment etc. (2)	Irrad. components Control rods etc.	Estimated Total Error
Container Volume	9.00E+01 cu. meter	1.27E+02 cu. meter	0.00E+00 cu. meter	0.00E+00 % (1)
Total Activity	1.09E+02 Curies	5.70E+01 Curies	0.00E+00 Curies	3.00E+01 %
2. Estimate of Major Nuclide Composition by Type of Waste (percent)				
H-3	6.71E-01 %	1.44E+01 %	0.00E+00 %	
He-7	2.92E-05 %	4.56E-01 %	0.00E+00 %	
C-14	4.78E-01 %	4.08E-02 %	0.00E+00 %	
P-32	1.04E-02 %	8.67E-02 %	0.00E+00 %	
Cr-51	2.06E-03 %	0.00E+00 %	0.00E+00 %	
Mn-54	2.25E-01 %	1.15E+00 %	0.00E+00 %	
Fe-55	1.47E+01 %	2.38E+01 %	0.00E+00 %	
Fe-59	1.29E-02 %	0.00E+00 %	0.00E+00 %	
Co-57	1.67E-01 %	1.82E-02 %	0.00E+00 %	
Co-58	2.60E+01 %	1.67E+00 %	0.00E+00 %	
Co-60	3.82E+01 %	1.57E+01 %	0.00E+00 %	
Ni-59	1.98E-01 %	1.02E+00 %	0.00E+00 %	
Ni-63	1.90E+01 %	1.12E+01 %	0.00E+00 %	
Sr-89	2.73E-02 %	4.71E-03 %	0.00E+00 %	
Sr-90	1.31E-02 %	0.00E+00 %	0.00E+00 %	
Nb-94	1.99E-03 %	0.00E+00 %	0.00E+00 %	
Nb-95	1.04E-02 %	3.80E-01 %	0.00E+00 %	
Zr-95	1.39E-02 %	0.00E+00 %	0.00E+00 %	
Zr/Nb-97	0.00E+00 %	1.45E-02 %	0.00E+00 %	
Tc-99	6.56E-04 %	3.85E-02 %	0.00E+00 %	
Ag-110m	2.07E-01 %	7.94E-01 %	0.00E+00 %	
Sb-125	3.36E-02 %	2.26E-01 %	0.00E+00 %	
I-129	1.46E-03 %	4.37E-02 %	0.00E+00 %	
I-131	1.50E-06 %	2.29E-01 %	0.00E+00 %	
Cs-134	4.35E-03 %	8.61E+00 %	0.00E+00 %	
Cs-137	3.66E-02 %	1.99E+01 %	0.00E+00 %	
Ba-133	1.54E-03 %	0.00E+00 %	0.00E+00 %	
Ba-140	0.00E+00 %	0.00E+00 %	0.00E+00 %	
Ce-144/Pr-144	3.95E-03 %	0.00E+00 %	0.00E+00 %	
Pu-238	5.36E-06 %	1.84E-03 %	0.00E+00 %	
Pu-239/240	8.93E-06 %	9.89E-04 %	0.00E+00 %	
Pu-241	1.57E-02 %	1.76E-01 %	0.00E+00 %	
Am-241	5.09E-05 %	1.32E-03 %	0.00E+00 %	
Cm-242	3.04E-05 %	4.88E-03 %	0.00E+00 %	
Cm-243/244	1.23E-05 %	2.82E-03 %	0.00E+00 %	
Other Transuranics	8.84E-04 %	0.00E+00 %	0.00E+00 %	
3. Number of Shipments				
	10	3	0	
Type of Container Used	LSA Type A Type B Large Quantity	10 0 0 0	3 0 0 0	0 0 0 0
Solidification Agent Used	Cement Urea Formaldehyde None	0 0 10	0 0 3	0 0 0
Mode of Transport	Truck Rail	10 0	3 0	0 0
Final Destination	Beatty, NV Barnwell, SC Oak Ridge, TN (2) Wampum, PA (2)	1 4 5 0	0 0 2 1	0 0 0 0
Waste Class per 10 CFR 61	Class A Class B Class C > Class C	9 1 0 0	3 0 0 0	0 0 0 0

B. No Irradiated Fuel Shipments

- (1) Since container volumes are provided by the burial site, a calculational error of zero is assumed.
- (2) 3 shipments of DAW went to SRG and ALARON for volume reduction. Therefore, the volume listed is the volume shipped. The total volume of DAW buried this period was 3.11E+1 cu. meters.
- (3) 5 shipments of Spent Resin went to SRG for volume reduction. Therefore, the volume listed is the volume shipped. The total volume of this category buried this period was 8.69E+1 cu. meters.

TABLE 4

2nd Half - 1992

SEMI-ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

LOWER LIMITS OF DETECTABILITY (LLD)

*****			
	* uCi/cc	uCi/ml	uCi/cc
	GAS		FILTER PAPER / CHARCOAL
	GRAB SAMPLE	GRAB SAMPLE	CONTINUOUS EFFLUENT SAMPLE
* NUCLIDE	(1000 cc)	(1000 ml)	(2.85E+8 cc) **
*****			
* H-3	1.00E-06	1.00E-06	-----
* Na-24	8.54E-08	1.82E-08	1.60E-13
* Ar-41	2.60E-07	5.09E-08	-----
* Cr-51	6.89E-07	1.77E-07	1.09E-12
* Mn-54	1.14E-07	2.26E-08	1.42E-13
* Fe-55	-----	* 1.00E-06	-----
* Fe-59	1.78E-07	3.75E-08	2.31E-13
* Co-57	6.82E-08	1.56E-08	6.06E-14
* Co-58	8.41E-08	1.63E-08	1.55E-13
* Co-60	1.61E-07	3.14E-08	2.40E-13
* Zn-65	1.90E-07	3.73E-08	4.60E-13
* Kr-85	2.73E-5 / *1.00E-10	5.82E-06	-----
* Kr-85m	6.38E-08	1.49E-08	-----
* Kr-87	2.11E-07	3.64E-08	-----
* Kr-88	2.57E-07	5.35E-08	-----
* Sr-89	-----	* 5.00E-08	* 1.00E-13
* Sr-90	-----	* 5.00E-08	* 1.00E-14
* Sr-92	1.46E-07	2.66E-08	2.30E-13
* Nb-95	1.15E-07	2.43E-08	1.37E-13
* Nb-97	1.17E-07	2.36E-08	1.41E-13
* Zr-95	1.56E-07	3.36E-08	2.61E-13
* Mo-99	6.34E-08	1.37E-08	6.32E-14
* Tc-99m	6.16E-08	1.33E-08	6.16E-14
* Ag-110m	1.21E-07	2.46E-08	1.47E-13
* Sb-124	9.38E-08	1.79E-08	1.68E-13
* Sb-125	3.01E-07	5.90E-08	3.22E-13
* I-131	8.49E-08	1.91E-08	1.70E-13
* I-133	1.11E-07	2.38E-08	1.61E-13
* I-135	3.22E-07	6.52E-08	9.81E-13
* Xe-131m	2.83E-06	5.99E-07	-----
* Xe-133	1.56E-07	3.47E-08	-----
* Xe-133m	5.51E-07	1.24E-07	-----
* Xe-135	9.06E-08	1.82E-08	-----
* Xe-135m	1.04E-07	2.13E-08	-----
* Xe-138	2.15E-07	4.94E-08	-----
* Cs-134	1.02E-07	1.94E-08	1.69E-13
* Cs-137	1.43E-07	2.81E-08	1.54E-13
* Ba-139	3.36E-07	6.99E-08	4.75E-13
* Ba-140	4.07E-07	8.89E-08	4.63E-13
* La-140	1.57E-07	3.05E-08	2.76E-13
* Ce-141	1.30E-07	2.78E-08	1.74E-13
* Ce-144	5.72E-07	1.19E-07	6.16E-13
* Gross Alpha	-----	* 1.00E-07	1.72E-16

All LLDs listed above meet the minimum requirements listed in Tables 4.11-1 and 4.11-2 of the Technical Specifications.

\* Sample analyses performed by a contractor laboratory.

\*\* These LLD calculations contain a default weekly continuous sample volume of 2.85E+8 cc. Therefore, grab sample LLD values would reflect a different volume (ie; 10 cubic feet or 2.83E+5 cc).

Table 5A

2nd Half - 1992

SEMI-ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

ASSESSMENT OF RADIATION DOSES

UNIT 1		1st Quarter		2nd Quarter		3rd Quarter		4th Quarter		Year	
LIQUID EFFLUENTS		Dose	% of Tech Spec Limit	Dose	% of Tech Spec Limit	Dose	% of Tech Spec Limit	Dose	% of Tech Spec Limit	Dose	% of Tech Spec Limit
Batch Releases											
O R G A N	BONE DOSE	4.02E-03	0.0804	4.05E-03	0.0810	3.01E-03	0.0602	4.71E-03	0.0942	1.58E-02	0.1579
	LIVER DOSE	7.24E-03	0.1448	7.57E-03	0.1514	3.95E-03	0.0790	5.43E-03	0.1086	2.42E-02	0.2419
	TOTAL BODY DOSE	5.42E-03	0.3613	5.58E-03	0.3720	2.44E-03	0.1627	3.11E-03	0.2073	1.65E-02	0.5517
	THYROID DOSE	1.70E-03	0.0340	1.50E-03	0.0300	9.49E-04	0.0190	2.61E-03	0.0522	6.76E-03	0.0676
	KIDNEY DOSE	3.34E-03	0.0668	3.13E-03	0.0626	1.42E-03	0.0284	1.58E-03	0.0316	9.47E-03	0.0947
	LUNG DOSE	2.20E-03	0.0440	2.42E-03	0.0484	1.66E-03	0.0332	1.79E-03	0.0358	8.07E-03	0.0807
(1)	GI-LLI DOSE	8.68E-03	0.1736	5.11E-02	1.0220	4.18E-02	0.8360	7.18E-03	0.1436	1.09E-01	1.0876

UNIT 1		1st Quarter		2nd Quarter		3rd Quarter		4th Quarter		Year	
GASBOUS EFFLUENTS		Dose	% of Tech Spec Limit	Dose	% of Tech Spec Limit	Dose	% of Tech Spec Limit	Dose	% of Tech Spec Limit	Dose	% of Tech Spec Limit
Batch & Continuous Releases											
(2)	BETA AIR DOSE	6.03E-03	0.0603	3.82E-02	0.3820	7.73E-02	0.7730	1.69E-01	1.6870	2.90E-01	1.4512
(2)	GAMMA AIR DOSE	5.49E-05	0.0011	1.37E-02	0.2740	3.13E-02	0.6260	5.67E-02	1.1340	1.02E-01	1.0175
O R G A N	BONE DOSE	2.41E-04	0.0032	6.72E-04	0.0090	8.15E-05	0.0011	1.33E-04	0.0018	1.13E-03	0.0075
	LIVER DOSE	7.00E-02	0.9333	2.19E-02	0.2920	4.59E-02	0.6120	1.16E-01	1.5467	2.54E-01	1.6920
	TOTAL BODY DOSE	6.99E-02	0.9320	2.19E-02	0.2920	4.59E-02	0.6120	1.16E-01	1.5467	2.54E-01	1.6913
	THYROID DOSE	7.02E-02	0.9360	2.23E-02	0.2973	4.59E-02	0.6120	1.33E-01	1.7733	2.71E-01	1.8093
	KIDNEY DOSE	6.99E-02	0.9320	2.19E-02	0.2920	4.59E-02	0.6120	1.16E-01	1.5467	2.54E-01	1.6913
	(3)	LUNG DOSE	6.99E-02	0.9320	2.20E-02	0.2933	4.59E-02	0.6120	1.16E-01	1.5467	2.54E-01
	GI-LLI DOSE	6.99E-02	0.9320	2.19E-02	0.2920	4.59E-02	0.6120	1.16E-01	1.5467	2.54E-01	1.6913

- (1) These doses are listed in mrem; they are calculated for the maximum individual for all batch liquid effluents
- (2) These doses are listed in mrad; they are calculated at the site boundary for batch & continuous gaseous effluents (0.4 mi NW)
- (3) These doses are listed in mrem; they are calculated for the most likely exposed real individual (child) via all real pathways at 0.89 mi NW.

Limits used for calculation of percent (%) are from Section 3/4.11, Article 3.11.1.2, 3.11.2.1, 3.11.2.2 and 3.11.2.3 of the Technical Specifications (considered to be the Design Objectives).

Table 5B

2nd Half - 1992

SEMI-ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT  
ASSESSMENT OF RADIATION DOSES

UNIT 2		1st Quarter		2nd Quarter		3rd Quarter		4th Quarter		Year	
LIQUID EFFLUENTS		Dose	% of Tech Spec Limit	Dose	% of Tech Spec Limit	Dose	% of Tech Spec Limit	Dose	% of Tech Spec Limit	Dose	% of Tech Spec Limit
Batch Releases											
ORGAN	BONE DOSE	4.02E-03	0.0804	4.05E-03	0.0810	3.01E-03	0.0602	4.71E-03	0.0942	1.58E-02	0.1579
	LIVER DOSE	7.24E-03	0.1448	7.57E-03	0.1514	3.95E-03	0.0790	5.43E-03	0.1086	2.42E-02	0.2419
	TOTAL BODY DOSE	5.42E-03	0.3613	5.58E-03	0.3720	2.44E-03	0.1627	3.11E-03	0.2073	1.65E-02	0.5517
	THYROID DOSE	1.70E-03	0.0340	1.50E-03	0.0300	9.49E-04	0.0190	2.61E-03	0.0522	6.76E-03	0.0676
	KIDNEY DOSE	3.34E-03	0.0668	3.13E-03	0.0626	1.42E-03	0.0284	1.58E-03	0.0316	9.47E-03	0.0947
	LUNG DOSE	2.20E-03	0.0440	2.42E-03	0.0484	1.66E-03	0.0332	1.79E-03	0.0358	8.07E-03	0.0807
(1)	GI-LLI DOSE	8.68E-03	0.1736	5.11E-02	1.0220	4.18E-02	0.8360	7.16E-03	0.1436	1.09E-01	1.0876

UNIT 2		1st Quarter		2nd Quarter		3rd Quarter		4th Quarter		Year	
GASEOUS EFFLUENTS		Dose	% of Tech Spec Limit	Dose	% of Tech Spec Limit	Dose	% of Tech Spec Limit	Dose	% of Tech Spec Limit	Dose	% of Tech Spec Limit
Batch & Continuous Releases											
(2)	BETA AIR DOSE	2.02E-02	0.2020	2.63E-03	0.0263	4.21E-02	0.4210	9.24E-02	0.9240	1.57E-01	0.7867
(2)	GAMMA AIR DOSE	1.13E-02	0.2260	2.53E-05	0.0005	1.07E-01	2.1400	3.39E-02	0.6780	1.52E-01	1.5223
ORGAN	BONE DOSE	3.53E-05	0.0005	6.97E-05	0.0009	1.47E-05	0.0002	7.50E-05	0.0010	1.95E-04	0.0013
	LIVER DOSE	4.63E-02	0.6173	3.01E-02	0.4013	7.49E-02	0.9987	9.90E-02	1.3200	2.50E-01	1.6687
	TOTAL BODY DOSE	4.63E-02	0.6173	3.01E-02	0.4013	7.49E-02	0.9987	9.89E-02	1.3187	2.50E-01	1.6680
	THYROID DOSE	4.67E-02	0.6227	3.76E-02	0.5013	7.49E-02	0.9987	9.98E-02	1.3307	2.59E-01	1.7267
	KIDNEY DOSE	4.63E-02	0.6173	3.01E-02	0.4013	7.49E-02	0.9987	9.89E-02	1.3187	2.50E-01	1.6680
(3)	LUNG DOSE	4.63E-02	0.6173	3.01E-02	0.4013	7.49E-02	0.9987	9.89E-02	1.3187	2.50E-01	1.6680
	GI-LLI DOSE	4.63E-02	0.6173	3.01E-02	0.4013	7.49E-02	0.9987	9.89E-02	1.3187	2.50E-01	1.6680

(1) These doses are listed in mrem; they are calculated for the maximum individual for all batch liquid effluents

(2) These doses are listed in mrad; they are calculated at the site boundary for batch &amp; continuous gaseous effluents (0.4 mi NW)

(3) These doses are listed in mrem; they are calculated for the most likely exposed real individual (child) via all real pathways at 0.89 mi NW.

Limits used for calculation of percent (%) are from Section 3/4.11, Article 3.11.1.2, 3.11.2.1, 3.11.2.2 and 3.11.2.3 of the Technical Specifications (considered to be the Design Objectives).

TABLE 6

2nd Half - 1992

SEMI-ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

\*\*\*\*\*

\* TECHNICAL SPECIFICATION EFFLUENT MONITORING INSTRUMENTATION CHANNELS NOT RETURNED TO OPERABLE STATUS WITHIN 30 DAYS \*

\*\*\*\*\*

\* There were no \*

\* Technical Specification Effluent Monitoring Instrumentation Channels \*

\* Not Returned To Operable Status Within 30 Days \*

\* during this report period. \*

\*\*\*\*\*



TABLE 7

2nd Half - 1992

SEMI-ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

40 CFR 190 ENVIRONMENTAL DOSES

Total Dose from all facility releases for the 12-month period  
January 1, 1992 thru December 31, 1992

```

*****
*          *          *          *
* ORGAN    * DOSE (mrem) * % OF TECH. SPEC. LIMIT *
*          *          *          *
*****
*          *          *          *
* BONE     * 3.29E-02 * 0.13% *
*          *          *          *
* LIVER    * 5.52E-01 * 2.21% *
*          *          *          *
* TOTAL BODY * 7.91E-01 * 3.16% *
*          *          *          *
* THYROID  * 5.44E-01 * 0.73% *
*          *          *          *
* KIDNEY   * 5.23E-01 * 2.09% *
*          *          *          *
* LUNG     * 5.20E-01 * 2.08% *
*          *          *          *
* GI-LLI   * 7.21E-01 * 2.89% *
*          *          *          *
*****
    
```

The above cumulative dose contributions from liquid and gaseous effluents were determined in accordance with the applicable Technical Specifications and the ODCM.

Technical Specification 3.11.4.1 states: The dose or dose commitment to MEMBER(S) OF THE PUBLIC from all facility releases is limited to < or = 25 mrem to the total body or any organ (except the thyroid, which is limited to < or = 75 mrem) for a calendar year.

Note that an assessment of radiation doses from radioactive effluents to MEMBER(S) OF THE PUBLIC due to their activities inside the site boundary is not applicable.

TABLE 6

2nd Half - 1992

SEMI-ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

TECHNICAL SPECIFICATION SURVEILLANCE DEFICIENCIES

There were no  
Effluent Technical Specification Surveillance Deficiencies  
during this report period.

This is regarding  
monitoring, sampling & analysis and dose determination.

TABLE 9

2nd Half - 1992

SEMI-ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

UNIT 1 OFFSITE DOSE CALCULATION MANUAL CHANGES (DESCRIPTION)

There were no changes made to the  
Unit 1 Offsite Dose Calculation Manual  
during this report period

TABLE 10

2nd Half - 1992

SEMI-ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

UNIT 2 OFFSITE DOSE CALCULATION MANUAL CHANGES (DESCRIPTION)

There were no changes made to the  
Unit 2 Offsite Dose Calculation Manual  
during this report period

BEAVER VALLEY - UNITS 1&2  
ATTACHMENT 1  
2nd Half - 1992  
SEMI-ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT  
JOINT FREQUENCY DISTRIBUTION TABLES

TABLE 1. BEAVER VALLEY METEOROLOGICAL TOWER DATA RECOVERY  
 THIRD QUARTER 1992 (7/1/92 - 9/30/92)

Parameter	Recovery (Percent)
Wind Speed 35 ft	100.0
Wind Speed 150 ft	100.0
Wind Speed 500 ft	100.0
Wind Direction 35 ft	100.0
Wind Direction 150 ft	100.0
Wind Direction 500 ft	100.0
Delta Temperature 1P	100.0
Delta Temperature 500-35 2P	100.0
Temperature 35	99.9
Dew Point Temperature 35	35.1
Precipitation	97.9
<u>Composite</u>	
Wind Speed and Direction 35, Delta Temperature 1P	100.0
Wind Speed and Direction 150, Delta Temperature 1P	100.0
Wind Speed and Direction 500, Delta Temperature 2P	100.0

SITE: BEAVER VALLEY

HOURS AT EACH WIND SPEED AND DIRECTION  
 PERIOD OF RECORD = 92070101-92093024 HOUR RANGE = 01 - 24  
 STABILITY CLASS: A DT/DZ  
 ELEVATION: SPEED:SP 35P DIRECTION:DI 35P LAPSE:DT1-P

WIND DIRECTION	WIND SPEED (MPH)							>24	TOTAL
	1-3	4-7	8-12	13-18	19-24				
N	7	14	0	0	0	0	0	0	21
NNE	11	3	0	0	0	0	0	0	14
NE	10	2	0	0	0	0	0	0	12
ENE	1	6	0	0	6	0	0	0	7
E	6	6	0	0	0	0	0	0	12
ESE	14	0	0	0	0	0	0	0	14
SE	9	0	0	0	0	0	0	0	9
SSE	9	2	0	0	0	0	0	0	11
S	6	10	0	0	0	0	0	0	16
SSW	4	13	0	0	0	0	0	0	17
SW	2	11	3	0	0	0	0	0	16
WSW	5	26	8	0	0	0	0	0	39
W	8	28	3	0	0	0	0	0	39
WNW	5	20	0	0	0	0	0	0	25
NW	10	14	0	0	0	0	0	0	24
NNW	8	5	0	0	0	0	0	0	13
TOTAL	115	160	14	0	0	0	0	0	289

PERIODS OF CALM(HOURS): 23  
 VARIABLE DIRECTION 0  
 HOURS OF MISSING DATA: 0

SITE: BEAVER VALLEY

HOURS AT EACH WIND SPEED AND DIRECTION  
 PERIOD OF RECORD = 92070101-92093024 HOUR RANGE = 01 - 24  
 STABILITY CLASS: B DT/DZ  
 ELEVATION: SPEED:SP 35P DIRECTION:DI 35P LAPSE:DT1-P

-----^5iJJ-----  
 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	3	0	0	0	0	0	3
NE	1	0	0	0	0	0	1
ENE	1	0	0	0	0	0	1
E	1	0	0	0	0	0	1
ESE	3	0	0	0	0	0	3
SE	1	0	0	0	0	0	1
SSE	4	0	0	0	0	0	4
S	1	0	0	0	0	0	1
SSW	1	4	1	0	0	0	6
SW	2	3	2	0	0	0	7
WSW	0	10	5	0	0	0	15
W	2	5	1	0	0	0	8
WNW	1	6	0	0	0	0	7
NW	0	1	0	0	0	0	1
NNW	2	2	0	0	0	0	4
TOTAL	24	35	9	0	0	0	68

-----  
 PERIODS OF CALM(HOURS): 23  
 VARIABLE DIRECTION 0  
 HOURS OF MISSING DATA: 0



SITE: BEAVER VALLEY

HOURS AT EACH WIND SPEED AND DIRECTION  
 PERIOD OF RECORD = 92070101-92093024 HOUR RANGE = 01 - 24  
 STABILITY CLASS: C D1/DZ  
 ELEVATION: SPEED:SP 35P DIRECTION:DI 35P LAPSE:DT1-P

WIND SPEED(MPH)

---

DIRECTION	1-3	4-7	8-12	13-18	19-24	>24 TOTAL
N	3	3	0	0	0	6
NNE	2	0	0	0	0	2
NE	3	0	0	0	0	3
ENE	5	0	0	0	0	5
E	1	0	0	0	0	1
ESE	1	0	0	0	0	1
SE	1	0	0	0	0	1
SSE	0	0	0	0	0	0
S	1	1	0	0	0	2
SSW	1	3	0	0	0	4
SW	3	8	2	0	0	13
WSW	1	7	4	0	0	12
W	1	9	2	0	0	12
WNW	3	5	0	0	0	8
NW	2	5	0	0	0	7
NNW	1	6	0	0	0	7
TOTAL	29	47	8	0	0	84

PERIODS OF CALM(HOURS): 23  
 VARIABLE DIRECTION 0  
 HOURS OF MISSING DATA: 0

SITE: BEAVER VALLEY

HOURS AT EACH WIND SPEED AND DIRECTION  
 PERIOD OF RECORD = 92070101-92093024 HOUR RANGE = 01 - 24  
 STABILITY CLASS: D DT/DZ  
 ELEVATION: SPEED:SP 35P DIRECTION:DI 35P LAPSE:DT1-P

WIND DIRECTION	WIND SPEED (MPH)							>24	TOTAL
	1-3	4-7	8-12	13-18	19-24				
N	26	8	0	0	0	0	0	0	34
NNE	32	0	0	0	0	0	0	0	32
NE	20	0	0	0	0	0	0	0	20
ENE	13	0	0	0	0	0	0	0	13
E	17	0	0	0	0	0	0	0	17
ESE	6	0	0	0	0	0	0	0	6
SE	9	0	0	0	0	0	0	0	9
SSE	8	0	0	0	0	0	0	0	8
S	13	8	0	0	0	0	0	0	21
SSW	11	22	4	0	0	0	0	0	37
SW	17	50	27	0	0	0	0	0	94
WSW	18	65	13	0	0	0	0	0	96
W	30	21	2	0	0	0	0	0	53
WNW	20	12	1	0	0	0	0	0	33
NW	27	14	0	0	0	0	0	0	41
NNW	20	19	0	0	0	0	0	0	39
TOTAL	287	219	47	0	0	0	0	0	553

PERIODS OF CALM(HOURS): 23  
 VARIABLE DIRECTION 0  
 HOURS OF MISSING DATA: 0

SITE: BEAVER VALLEY

HOURS AT EACH WIND SPEED AND DIRECTION  
 PERIOD OF RECORD = 92070101-92093024 HOUR RANGE = 01 - 24  
 STABILITY CLASS: E DT/DZ  
 ELEVATION: SPEED:SP 35P DIRECTION:DI 35P LAPSE:DI1-P

WIND DIRECTION	WIND SPEED(MPH)							>24	TOTAL
	1-3	4-7	8-12	13-18	19-24				
N	19	2	0	0	0	0	0	0	21
NNE	15	0	0	0	0	0	0	0	15
NE	38	0	0	0	0	0	0	0	38
ENE	48	0	0	0	0	0	0	0	49
E	62	1	0	0	0	0	0	0	64
ESE	59	0	0	0	0	0	0	0	64
SE	40	0	0	0	0	0	0	0	41
SSE	61	0	0	0	0	0	0	0	61
S	75	5	0	0	0	0	0	0	80
SSW	47	23	0	0	0	0	0	0	70
SW	34	37	5	0	0	0	0	0	76
WSW	19	22	4	0	0	0	0	0	45
W	20	3	0	0	0	0	0	0	24
WNW	11	0	1	0	0	0	0	0	12
NW	26	2	0	0	0	0	0	0	28
NNW	19	1	0	0	0	0	0	0	20
TOTAL	593	96	10	0	0	0	0	0	708

PERIODS OF CALM(HOURS): 23  
 VARIABLE DIRECTION 0  
 HOURS OF MISSING DATA: 0

SITE: BEAVER VALLEY

HOURS AT EACH WIND SPEED AND DIRECTION  
 PERIOD OF RECORD = 92070101-92093024 HOUR RANGE = 01 - 24  
 STABILITY CLASS: F DT/DZ  
 ELEVATION: SPEED:SP 35P DIRECTION:DI 35P LAPSE:DT1-P

WIND DIRECTION	WIND SPEED (MPH)							>24	TOTAL
	1-3	4-7	8-12	13-18	19-24				
N	4	0	0	0	0	0	0	0	4
NNE	5	0	0	0	0	0	0	0	5
NE	10	0	0	0	0	0	0	0	10
ENE	22	0	0	0	0	0	0	0	22
E	40	0	0	0	0	0	0	0	43
ESE	76	0	0	0	0	0	0	0	80
SE	97	0	0	0	0	0	0	0	100
SSE	51	0	0	0	0	0	0	0	53
S	32	3	0	0	0	0	0	0	36
SSW	15	4	0	0	0	0	0	0	19
WSW	4	2	0	0	0	0	0	0	6
W	3	0	0	0	0	0	0	0	3
WNW	2	0	0	0	0	0	0	0	2
W	3	0	0	0	0	0	0	0	3
WNW	1	0	0	0	0	0	0	0	1
W	5	0	0	0	0	0	0	0	5
TOTAL	370	9	0	0	0	0	0	0	392

PERIODS OF CALM(HOURS): 23  
 VARIABLE DIRECTION 0  
 HOURS OF MISSING DATA: 0

SITE: BEAVER VALLEY

HOURS AT EACH WIND SPEED AND DIRECTION  
 PERIOD OF RECORD = 92070101-92093024 HOUR RANGE = 01 - 24  
 STABILITY CLASS: G DT/DZ  
 ELEVATION: SPEED:SP 35P DIRECTION:DI 35P LAPSE:DT1-P

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	2	0	0	0	0	0	2
ENE	5	0	0	0	0	0	5
E	14	0	0	0	0	0	14
ESE	33	0	0	0	0	0	33
SE	36	0	0	0	0	0	36
SSE	10	0	0	0	0	0	10
S	9	1	0	0	0	0	10
SSW	3	0	0	0	0	0	3
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	0	0	0	0	0	0	0
NW	0	0	0	0	0	0	0
NNW	0	0	0	0	0	0	0
TOTAL	112	1	0	0	0	0	114

PERIODS OF CALM(HOURS): 23  
 VARIABLE DIRECTION 0  
 HOURS OF MISSING DATA: 0

SITE: BEAVER VALLEY

HOURS AT EACH WIND SPEED AND DIRECTION  
 PERIOD OF RECORD = 92070101-92093024 HOUR RANGE = 01 - 24  
 STABILITY CLASS: ALL DT/DZ  
 ELEVATION: SPEED:SP 35P DIRECTION:DI 35P LAPSE:DT1-P

WIND DIRECTION	WIND SPEED(MPH)							>24	TOTAL
	1-3	4-7	8-12	13-18	19-24				
N	60	31	0	0	0	0	0	0	91
NNE	68	3	0	0	0	0	0	0	71
NE	84	2	0	0	0	0	0	0	86
ENE	95	6	0	0	0	0	0	0	102
E	141	7	0	0	0	0	0	0	152
ESE	192	0	0	0	0	0	0	0	201
SE	193	0	0	0	0	0	0	0	198
SSE	143	2	0	0	0	0	0	0	147
S	137	28	0	0	0	0	0	0	166
SSW	82	69	5	0	0	0	0	0	156
SW	62	111	39	0	0	0	0	0	212
WSW	46	130	34	0	0	0	0	0	210
W	63	66	8	0	0	0	0	0	138
WNW	43	43	2	0	0	0	0	0	88
NW	66	66	0	0	0	0	0	0	102
NNW	55	33	0	0	0	0	0	0	88
TOTAL	1530	567	88	0	0	0	0	0	2208

PERIODS OF CALM(HOURS): 23

VARIABLE DIRECTION 0

HOURS OF MISSING DATA: 0

SITE: BEAVER VALLEY

HOURS AT EACH WIND SPEED AND DIRECTION  
 PERIOD OF RECORD = 92070101-92093024 HOUR RANGE = 01 - 24  
 STABILITY CLASS: A DT/DZ  
 ELEVATION: SPEED:SP500P DIRECTION:DI500P LAPSE:DT2-P

WIND DIRECTION	WIND SPEED(MPH)						>24 TOTAL
	1-3	4-7	8-12	13-18	19-24		
N	0	0	0	0	0	0	0
NNE	0	1	0	0	0	0	1
NE	0	0	0	0	0	0	0
ENE	0	0	0	0	0	0	0
E	0	0	1	0	0	0	1
ESE	0	0	0	0	0	0	0
SE	0	0	0	0	0	0	0
SSE	0	0	1	0	0	0	1
S	0	0	0	0	0	0	0
SSW	0	0	0	0	0	0	0
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	0	0	0	0	0	0	0
NW	0	0	0	0	0	0	0
NNW	0	0	0	0	0	0	0
TOTAL	0	1	2	0	0	0	3

PERIODS OF CALM(HOURS): 1  
 VARIABLE DIRECTION 0  
 HOURS OF MISSING DATA: 0

SITE: BEAVER VALLEY

HOURS AT EACH WIND SPEED AND DIRECTION  
 PERIOD OF RECORD = 92070101-92093024 HOUR RANGE = 01 - 24  
 STABILITY CLASS: B DT/DZ  
 ELEVATION: SPEED:SP500P DIRECTION:DI500P LAPSE:DT2-p

WIND DIRECTION	WIND SPEED(MPH)							>24 TOTAL
	1-3	4-7	8-12	13-18	19-24			
N	0	0	0	0	0	0	0	
NNE	0	1	0	0	0	0	1	
NE	0	0	0	0	0	0	0	
ENE	0	0	0	0	0	0	0	
E	0	0	1	1	0	0	2	
ESE	0	0	1	0	0	0	1	
SE	0	0	2	0	0	0	2	
SSE	0	0	1	0	0	0	1	
S	0	0	0	0	0	0	0	
SSW	0	0	1	0	0	0	1	
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	0	0	1	0	0	0	1	
NW	0	0	1	0	0	0	1	
NNW	0	0	0	0	0	0	0	
TOTAL	0	1	8	1	0	0	10	

PERIODS OF CALM(HOURS): 1  
 VARIABLE DIRECTION 0  
 HOURS OF MISSING DATA: 0



SITE: BEAVER VALLEY

HOURS AT EACH WIND SPEED AND DIRECTION  
 PERIOD OF RECORD = 92070101-92093024 HOUR RANGE = 01 - 24  
 STABILITY CLASS: C DT/DZ  
 ELEVATION: SPEED:SP500P DIRECTION:DI500P LAPSE:DT2-P

WIND SPEED(MPH)

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

PERIODS OF CALM(HOURS): 1

VARIABLE DIRECTION 0

HOURS OF MISSING DATA: 0

SITE: BEAVER VALLEY

HOURS AT EACH WIND SPEED AND DIRECTION  
 PERIOD OF RECORD = 92070101-92093024 HOUR RANGE = 01 - 24  
 STABILITY CLASS: D DT/DZ  
 ELEVATION: SPEED:SP500P DIRECTION:DI500P LAPSE:DT2-P

WIND DIRECTION	WIND SPEED (MPH)							>24	TOTAL
	1-3	4-7	8-12	13-18	19-24				
N	3	27	27	2	0	0	0	59	
NNE	11	12	9	4	0	0	0	36	
NE	7	17	4	0	0	0	0	28	
ENE	12	20	13	0	0	0	0	45	
E	9	26	28	1	0	0	0	64	
ESE	3	16	7	0	0	0	0	26	
SE	5	19	5	0	0	0	0	29	
SSE	2	14	19	1	0	0	0	36	
S	2	12	21	5	0	0	0	40	
SSW	4	11	19	28	1	0	0	63	
SW	10	18	42	67	5	0	0	142	
WSW	4	21	48	48	8	0	0	129	
W	1	20	60	67	13	0	0	161	
WNW	4	23	61	16	8	2	0	114	
NW	0	24	42	10	0	0	0	76	
NNW	0	12	36	9	0	0	0	57	
TOTAL	77	292	441	258	35	2	2	1105	

PERIODS OF CALM(HOURS): 1  
 VARIABLE DIRECTION 0  
 HOURS OF MISSING DATA: 0

SITE: BEAVER VALLEY

HOURS AT EACH WIND SPEED AND DIRECTION  
 PERIOD OF RECORD = 92070101-92093024 HOUR RANGE = 01 - 24  
 STABILITY CLASS: E DT/DZ  
 ELEVATION: SPEED:SP500P DIRECTION:DI500P LAPSE:DT2-P

		WIND SPEED(MPH)							
WIND DIRECTION		1-3	4-7	8-12	13-18	19-24	>24	TOTAL	
N		1	3	9	11	0	0	24	
NNE		7	7	4	7	0	0	25	
NE		14	21	2	1	0	0	38	
ENE		10	23	14	3	0	0	50	
E		6	15	11	3	0	0	35	
ESE		7	18	2	3	0	0	30	
SE		7	17	15	13	1	0	53	
SSE		8	7	7	8	3	0	33	
S		6	16	22	12	0	0	56	
SSW		7	15	16	25	0	0	63	
SW		15	23	29	32	17	1	117	
WSW		16	21	10	7	2	0	56	
W		21	35	32	8	0	0	96	
WNW		12	32	24	1	0	0	69	
NW		6	8	12	4	0	0	30	
NNW		6	6	9	4	0	0	25	
TOTAL		149	267	218	142	23	1	800	

PERIODS OF CALM(HOURS): 1  
 VARIABLE DIRECTION 0  
 HOURS OF MISSING DATA: 0

SITE: BEAVER VALLEY

HOURS AT EACH WIND SPEED AND DIRECTION  
 PERIOD OF RECORD = 92070101-92093024 HOUR RANGE = 01 - 24  
 STABILITY CLASS: F DT/DZ  
 ELEVATION: SPEED:SP500P DIRECTION:DI500P LAPSE:DT2-P

WIND DIRECTION	WIND SPEED(MPH)							>24	TOTAL
	1-3	4-7	8-12	13-18	19-24				
N	4	1	1	0	0	0	0	0	6
NNE	8	5	1	1	0	0	0	0	15
NE	6	3	0	0	0	0	0	0	9
ENE	16	14	1	1	0	0	0	0	32
E	10	10	6	2	0	0	0	0	28
ESE	4	4	2	1	0	0	0	0	11
SE	5	3	3	0	0	0	0	0	11
SSE	5	4	3	3	0	0	0	0	15
S	5	4	5	2	0	0	0	0	16
SSW	7	5	4	6	0	0	0	0	22
SW	6	2	1	5	7	0	0	0	21
WSW	5	7	1	0	0	0	0	0	13
W	8	5	0	0	0	0	0	0	14
WNW	6	10	0	0	0	0	0	0	16
NW	8	6	4	0	0	0	0	0	18
NNW	4	1	2	0	0	0	0	0	7
TOTAL	107	84	34	21	7	0	0	0	254

PERIODS OF CALM(HOURS): 1

VARIABLE DIRECTION 0

HOURS OF MISSING DATA: 0

SITE: BEAVER VALLEY

HOURS AT EACH WIND SPEED AND DIRECTION  
 PERIOD OF RECORD = 92070101-92093024 HOUR RANGE = 01 - 24  
 STABILITY CLASS: G DT/DZ  
 ELEVATION: SPEED:SP500P DIRECTION:DI500P LAPSE:DT2-P

WIND DIRECTION	WIND SPEED (MPH)							>24 TOTAL
	1-3	4-7	8-12	13-18	19-24			
N	0	0	0	0	0	0	0	
NNE	0	0	0	0	0	0	0	
NE	0	0	0	0	0	0	0	
ENE	0	0	0	0	0	0	0	
E	0	0	0	0	0	0	0	
ESE	0	0	0	0	0	0	0	
SE	0	0	0	0	0	0	0	
SSE	0	0	0	0	0	0	0	
S	0	0	0	0	0	0	0	
SSW	0	0	0	0	0	0	0	
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	0	0	0	0	0	0	0	
NW	0	0	0	0	0	0	0	
NNW	0	0	0	0	0	0	0	
TOTAL	0	0	0	0	0	0	0	

PERIODS OF CALM(HOURS): 1  
 VARIABLE DIRECTION 0  
 HOURS OF MISSING DATA: 0

SITE: BEAVER VALLEY

HOURS AT EACH WIND SPEED AND DIRECTION  
 PERIOD OF RECORD = 92070101-92093024 HOUR RANGE = 01 - 24  
 STABILITY CLASS: ALL DT/DZ  
 ELEVATION: SPEED:SP500P DIRECTION:DI500P LAPSE:DT2-P

		WIND SPEED (MPH)							
		1-3	4-7	8-12	13-18	19-24	>24	TOTAL	
WIND DIRECTION									
N		8	32	39	13	0	0	92	
NNE		26	26	14	12	0	0	78	
NE		27	41	6	1	0	0	75	
ENE		38	58	29	4	0	0	129	
E		25	52	50	8	0	0	135	
ESE		14	40	15	4	0	0	73	
SE		17	40	27	13	1	0	98	
SSE		15	27	32	13	3	0	90	
S		13	32	52	20	0	0	117	
SSW		18	31	40	59	1	0	149	
SW		31	43	72	105	29	1	281	
WSW		25	49	60	55	10	0	199	
W		30	60	93	75	15	0	274	
WNW		22	65	88	17	8	2	202	
NW		14	38	59	14	0	0	125	
NNW		10	19	49	13	0	0	91	
TOTAL		333	653	725	426	67	3	2208	

PERIODS OF CALM(HOURS): 1  
 VARIABLE DIRECTION 0  
 HOURS OF MISSING DATA: 0

SITE: BEAVER VALLEY

HOURS AT EACH WIND SPEED AND DIRECTION  
 PERIOD OF RECORD = 92092411-92093024 HOUR RANGE = 01 - 24  
 STABILITY CLASS: A DT/DZ  
 ELEVATION: SPEED:SP500P DIRECTION:DI500P LAPSE:DT2-P

WIND DIRECTION	WIND SPEED(MPH)						>24 TOTAL
	1-3	4-7	8-12	13-18	19-24		
N	0	0	0	0	0	0	0
NNE	0	0	0	0	0	0	0
NE	0	0	0	0	0	0	0
ENE	0	0	0	0	0	0	0
E	0	0	1	0	0	0	1
ESE	0	0	0	0	0	0	0
SE	0	0	0	0	0	0	0
SSE	0	0	0	0	0	0	0
S	0	0	0	0	0	0	0
SSW	0	0	0	0	0	0	0
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	0	0	0	0	0	0	0
NW	0	0	0	0	0	0	0
NNW	0	0	0	0	0	0	0
TOTAL	0	0	1	0	0	0	1

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

SITE: BEAVER VALLEY

HOURS AT EACH WIND SPEED AND DIRECTION  
 PERIOD OF RECORD = 92092411-92093024 HOUR RANGE = 01 - 24  
 STABILITY CLASS: B DT/DZ  
 ELEVATION: SPEED:SP500P DIRECTION:DI500P LAPSE:DT2-P

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

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



SITE: BEAVER VALLEY

HOURS AT EACH WIND SPEED AND DIRECTION  
 PERIOD OF RECORD = 92092411-92093024 HOUR RANGE = 01 - 24  
 STABILITY CLASS: C DT/DZ  
 ELEVATION: SPEED:SP500P DIRECTION:DI500P LAPSE:DT2-P

WIND DIRECTION	WIND SPEED(MPH)						>24 TOTAL
	1-3	4-7	8-12	13-18	19-24		
N	0	0	1	0	0	0	1
NNE	0	0	0	0	0	0	0
NE	0	0	0	0	0	0	0
ENE	0	0	0	0	0	0	0
E	0	0	1	1	0	0	2
ESE	0	0	2	0	0	0	2
SE	0	0	0	0	0	0	0
SSE	0	0	0	0	0	0	0
S	0	0	0	0	0	0	0
SSW	0	0	0	0	0	0	0
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	0	0	0	0	0	0	0
NW	0	0	0	0	0	0	0
NNW	0	0	0	0	0	0	0
TOTAL	0	0	4	1	0	0	5

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

SITE: BEAVER VALLEY

HOURS AT EACH WIND SPEED AND DIRECTION  
 PERIOD OF RECORD = 92092411-92093024 HOUR RANGE = 01 - 24  
 STABILITY CLASS: D DT/DZ  
 ELEVATION: SPEED:SP500P DIRECTION:DI500P LAPSE:DT2-P

WIND DIRECTION	WIND SPEED (MPH)						>24 TOTAL
	1-3	4-7	8-12	13-18	19-24		
N	0	0	3	0	0	0	3
NNE	0	0	0	0	0	0	0
NE	0	0	0	0	0	0	0
ENE	0	0	0	0	0	0	0
E	0	2	10	0	0	0	12
ESE	0	0	5	0	0	0	5
SE	0	0	0	0	0	0	0
SSE	0	0	0	0	0	0	0
S	0	0	0	0	0	0	0
SSW	0	0	0	0	0	0	0
SW	0	0	0	0	0	0	0
WSW	0	0	0	0	0	0	0
W	0	0	2	0	0	0	2
WNW	0	0	1	2	0	0	3
NW	0	1	3	0	0	0	4
NNW	0	2	6	0	0	0	8
TOTAL	0	0	11	2	0	0	13
TOTAL	0	5	41	4	0	0	50

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

SITE: BEAVER VALLEY

HOURS AT EACH WIND SPEED AND DIRECTION  
 PERIOD OF RECORD = 92092411-92093024 HOUR RANGE = 01 - 24  
 STABILITY CLASS: E DT/DZ  
 ELEVATION: SPEED:SP500P DIRECTION:DI500P LAPSE:DT2-P

		WIND SPEED(MPH)							
		1-3	4-7	8-12	13-18	19-24	>24	TOTAL	
WIND	DIRECTION	1-3	4-7	8-12	13-18	19-24	>24	TOTAL	
	N	0	0	2	3	0	0	5	
	NNE	0	0	0	1	0	0	1	
	NE	0	0	0	0	0	0	0	
	ENE	0	0	0	0	0	0	0	
	E	0	0	1	1	0	0	2	
	ESE	0	0	0	0	0	0	0	
	SE	0	0	0	0	0	0	0	
	SSE	0	0	0	0	0	0	0	
	S	0	0	0	0	0	0	0	
	SSW	0	0	0	0	0	0	0	
	SW	0	0	0	0	0	0	0	
	WSW	1	1	0	0	0	0	2	
	W	1	2	1	0	0	0	4	
	WNW	1	4	0	0	0	0	5	
	NW	0	1	0	0	0	0	1	
	NNW	0	1	3	2	0	0	6	
TOTAL		3	9	7	7	0	0	26	

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

SITE: BEAVER VALLEY

HOURS AT EACH WIND SPEED AND DIRECTION  
 PERIOD OF RECORD = 92092411-92093024 HOUR RANGE = 01 - 24  
 STABILITY CLASS: F DT/DZ  
 ELEVATION: SPEED:SP500P DIRECTION:DI500P LAPSE:DT2-P

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	0	0	0	0	0	0	0
ENE	0	0	0	0	0	0	0
E	0	0	4	2	0	0	6
ESE	0	0	0	0	0	0	0
SE	0	0	0	0	0	0	0
SSE	0	0	0	0	0	0	0
S	0	0	0	0	0	0	0
SSW	0	0	0	0	0	0	0
SW	0	0	0	0	0	0	0
WSW	0	0	0	0	0	0	0
W	0	1	0	0	0	0	1
WNW	0	0	0	0	0	0	0
NW	0	0	0	0	0	0	0
NNW	0	0	0	0	0	0	0
TOTAL	0	1	4	2	0	0	7

PERIODS OF CALM(HOURS): 0

VARIABLE DIRECTION 0

HOURS OF MISSING DATA: 0

SITE: BEAVER VALLEY

HOURS AT EACH WIND SPEED AND DIRECTION  
 PERIOD OF RECORD = 92092411-92093024 HOUR RANGE = 01 - 24  
 STABILITY CLASS: G DT/DZ  
 ELEVATION: SPEED:SP500P DIRECTION:DI500P LAPSE:DT2-P

WIND DIRECTION	WIND SPEED (MPH)							>24 TOTAL
	1-3	4-7	8-12	13-18	19-24			
N	0	0	0	0	0	0	0	
NNE	0	0	0	0	0	0	0	
NE	0	0	0	0	0	0	0	
ENE	0	0	0	0	0	0	0	
E	0	0	0	0	0	0	0	
ESE	0	0	0	0	0	0	0	
SE	0	0	0	0	0	0	0	
SSE	0	0	0	0	0	0	0	
S	0	0	0	0	0	0	0	
SSW	0	0	0	0	0	0	0	
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	0	0	0	0	0	0	0	
NW	0	0	0	0	0	0	0	
NNW	0	0	0	0	0	0	0	
TOTAL	0	0	0	0	0	0	0	

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

SITE: BEAVER VALLEY

HOURS AT EACH WIND SPEED AND DIRECTION  
 PERIOD OF RECORD = 92092411-92093024 HOUR RANGE = 01 - 24  
 STABILITY CLASS: ALL DT/DZ  
 ELEVATION: SPEED:SP500P DIRECTION:DI500P LAPSE:DT2-P

WIND DIRECTION	WIND SPEED(MPH)							>24	TOTAL
	1-3	4-7	8-12	13-18	19-24				
N	0	0	6	3	0	0	0	0	9
NNE	0	0	0	1	0	0	0	0	1
NE	0	0	0	0	0	0	0	0	0
ENE	0	0	0	0	0	0	0	0	0
E	0	2	17	5	0	0	0	0	24
ESE	0	0	8	0	0	0	0	0	8
SE	0	0	0	0	0	0	0	0	0
SSE	0	0	0	0	0	0	0	0	0
S	0	0	0	0	0	0	0	0	0
SSW	0	0	1	0	0	0	0	0	1
SW	0	0	0	0	0	0	0	0	0
WSW	1	1	2	0	0	0	0	0	4
W	1	3	2	2	0	0	0	0	8
WNW	1	5	3	0	0	0	0	0	9
NW	0	3	6	0	0	0	0	0	9
NNW	0	1	14	4	0	0	0	0	19
TOTAL	3	15	59	15	0	0	0	0	92

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

TABLE 1. BEAVER VALLEY METEOROLOGICAL TOWER DATA RECOVERY  
FOURTH QUARTER 1992 (10/1/92 - 12/31/92)

Parameter	Recovery (Percent)
Wind Speed 35 ft	100.0
Wind Speed 150 ft	100.0
Wind Speed 500 ft	100.0
Wind Direction 35 ft	100.0
Wind Direction 150 ft	100.0
Wind Direction 500 ft	100.0
Delta Temperature 1P	100.0
Delta Temperature 500-35 2P	100.0
Temperature 35	100.0
Dew Point Temperature 35	0.0
Precipitation	98.6
<u>Composite</u>	
Wind Speed and Direction 35, Delta Temperature 1P	100.0
Wind Speed and Direction 150, Delta Temperature 1P	100.0
Wind Speed and Direction 500, Delta Temperature 2P	100.0

BEAVER VALLEY JOINT FREQUENCY DISTRIBUTION  
GROUND LEVEL CONTINUOUS RELEASE  
FOURTH QUARTER 1992 (10/1/92 - 12/31/92)

SITE: BEAVER VALLEY

HOURS AT EACH WIND SPEED AND DIRECTION  
PERIOD OF RECORD = 92100101-92123124 HOUR RANGE = 01 - 24  
STABILITY CLASS: A DT/DZ  
ELEVATION: SPEED:SP 35P DIRECTION:DI 35P LAPSE:DT1-P

WIND DIRECTION	WIND SPEED (MPH)							>24 TOTAL
	1-3	4-7	8-12	13-18	19-24			
N	0	7	0	0	0	0	0	7
NNE	3	1	0	0	0	0	0	4
NE	1	1	0	0	0	0	0	2
ENE	1	2	0	0	0	0	0	3
E	0	4	0	0	0	0	0	4
ESE	1	3	0	0	0	0	0	4
SE	0	3	0	0	0	0	0	3
SSE	2	2	0	0	0	0	0	4
S	0	6	0	0	0	0	0	6
SSW	0	2	0	0	0	0	0	2
SW	1	3	1	0	0	0	0	5
WSW	1	3	2	0	0	0	0	6
W	1	2	1	0	0	0	0	4
WNW	2	1	0	0	0	0	0	3
NW	2	2	0	0	0	0	0	4
NNW	1	2	1	0	0	0	0	4
TOTAL	16	44	5	0	0	0	0	65

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



BEAVER VALLEY JOINT FREQUENCY DISTRIBUTION  
 GROUND LEVEL CONTINUOUS RELEASE  
 FOURTH QUARTER 1992 (10/1/92 - 12/31/92)

SITE: BEAVER VALLEY

HOURS AT EACH WIND SPEED AND DIRECTION  
 PERIOD OF RECORD = 92100101-92123124 HOUR RANGE = 01 - 24  
 STABILITY CLASS: B DT/DZ  
 ELEVATION: SPEED:SP 35P DIRECTION:DI 35P LAPSE:DT1-P

WIND DIRECTION	WIND SPEED (MPH)							TOTAL
	1-3	4-7	8-12	13-18	19-24	>24		
N	1	0	0	0	0	0	0	1
NNE	0	0	0	0	0	0	0	0
NE	0	0	0	0	0	0	0	0
ENE	1	0	0	0	0	0	0	1
E	1	0	0	0	0	0	0	1
ESE	0	0	0	0	0	0	0	0
SE	0	0	0	0	0	0	0	0
SSE	0	0	0	0	0	0	0	0
S	0	1	0	0	0	0	0	1
SSW	0	2	0	0	0	0	0	2
SW	0	3	2	0	0	0	0	5
WSW	0	3	5	0	0	0	0	8
W	2	1	1	0	0	0	0	4
WNW	2	5	0	0	0	0	0	7
NW	2	1	0	0	0	0	0	3
NNW	0	3	0	0	0	0	0	3
TOTAL	9	19	8	0	0	0	0	36

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

SITE: BEAVER VALLEY

HOURS AT EACH WIND SPEED AND DIRECTION = 92100101-92123124 HOUR RANGE = 01 - 24  
 PERIOD OF RECORD = 92100101-92123124  
 STABILITY CLASS: C DT/DZ  
 ELEVATION: SPEED:SP 35P DIRECTION:DI 35P LAPSE:DT1-P

WIND SPEED(MPH)

DIRECTION	WIND DIRECTION						
	1-3	4-7	8-12	13-18	19-24	>24 TOTAL	TOTAL
N	0	1	0	0	0	0	1
NNE	2	0	0	0	0	0	2
NE	2	1	0	0	0	0	3
ENE	0	0	0	0	0	0	0
E	0	1	0	0	0	0	1
ESE	1	0	0	0	0	0	1
SE	0	1	0	0	0	0	1
SSE	1	0	0	0	0	0	1
S	0	0	0	0	0	0	0
SSW	1	2	0	0	0	0	3
SW	0	2	3	0	0	0	5
WSW	0	7	3	0	0	0	10
W	1	5	3	0	0	0	9
WNW	1	1	0	0	0	0	2
NW	0	1	0	0	0	0	1
NNW	0	1	0	0	0	0	1
TOTAL	9	23	9	0	0	0	41

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

BEAVER VALLEY JOINT FREQUENCY DISTRIBUTION  
 GROUND LEVEL CONTINUOUS RELEASE  
 FOURTH QUARTER 1992 (10/1/92 - 12/31/92)

SITE: BEAVER VALLEY

HOURS AT EACH WIND SPEED AND DIRECTION  
 PERIOD OF RECORD = 92100101-92123124 HOUR RANGE = 01 - 24  
 STABILITY CLASS: D DT/DZ  
 ELEVATION: SPEED:SP 35P DIRECTION:DI 35P LAPSE:DT1-P

WIND DIRECTION	WIND SPEED(MPH)							>24	TOTAL
	1-3	4-7	8-12	13-18	19-24				
N	20	12	0	0	0	0	0	0	32
NNE	47	7	0	0	0	0	0	0	54
NE	43	3	0	0	0	0	0	0	46
ENE	29	7	0	0	0	0	0	0	36
E	16	10	0	0	0	0	0	0	26
ESE	17	2	0	0	0	0	0	0	19
SE	10	2	0	0	0	0	0	0	12
SSE	11	5	0	0	0	0	0	0	16
S	10	9	0	0	0	0	0	0	19
SSW	11	13	3	0	0	0	0	0	27
SW	9	61	23	2	1	0	0	0	96
WSW	16	121	42	3	0	0	0	0	182
W	18	97	26	1	0	0	0	0	142
WNW	16	54	7	0	0	0	0	0	77
NW	22	52	4	0	0	0	0	0	78
NNW	26	26	0	0	0	0	0	0	52
TOTAL	321	481	105	6	1	0	0	0	914

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

BEAVER VALLEY JOINT FREQUENCY DISTRIBUTION  
GROUND LEVEL CONTINUOUS RELEASE  
FOURTH QUARTER 1992 (10/1/92 - 12/31/92)

SITE: BEAVER VALLEY

HOURS AT EACH WIND SPEED AND DIRECTION  
PERIOD OF RECORD = 92100101-92123124 HOUR RANGE = 01 - 24  
STABILITY CLASS: E DT/DZ  
ELEVATION: SPEED:SP 35P DIRECTION:DI 35P LAPSE:DT1-P

WIND DIRECTION	WIND SPEED (MPH)							>24 TOTAL
	1-3	4-7	8-12	13-18	19-24			
N	19	10	0	0	0	0	0	29
NNE	43	3	0	0	0	0	0	46
NE	63	20	0	0	0	0	0	83
ENE	42	13	0	0	0	0	0	55
E	28	2	0	0	0	0	0	30
ESE	37	3	0	0	0	0	0	40
SE	25	0	1	0	0	0	0	26
SSE	37	4	0	0	0	0	0	41
S	37	8	1	0	0	0	0	46
SSW	26	16	2	0	0	0	0	44
SW	16	42	23	0	0	0	0	81
WSW	12	39	17	0	0	0	0	68
W	14	10	3	0	0	0	0	27
WNW	13	12	0	0	0	0	0	25
NW	14	9	1	0	0	0	0	24
NNW	16	6	0	0	0	0	0	22
TOTAL	442	197	48	0	0	0	0	687

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

BEAVER VALLEY JOINT FREQUENCY DISTRIBUTION  
 GROUND LEVEL CONTINUOUS RELEASE  
 FOURTH QUARTER 1992 (10/1/92 - 12/31/92)

SITE: BEAVER VALLEY

HOURS AT EACH WIND SPEED AND DIRECTION  
 PERIOD OF RECORD = S2100;01-92123124 HOUR RANGE = 01 - 24  
 STABILITY CLASS: F DT/DZ  
 ELEVATION: SPEED:SP 35P DIRECTION:DI 35P LAPSE:DT1-P

WIND DIRECTION	WIND SPEED (MPH)							TOTAL
	1-3	4-7	8-12	13-18	19-24	>24		
N	7	0	0	0	0	0	0	7
NNE	10	0	0	0	0	0	0	10
NE	24	0	0	0	0	0	0	24
ENE	37	0	0	0	0	0	0	37
E	29	0	0	0	0	0	0	29
ESE	37	0	0	0	0	0	0	37
SE	28	0	0	0	0	0	0	28
SSE	30	0	0	0	0	0	0	30
S	20	1	0	0	0	0	0	21
SSW	6	2	0	0	0	0	0	8
SW	7	0	0	0	0	0	0	7
WSW	1	0	0	0	0	0	0	1
W	6	0	0	0	0	0	0	6
WNW	1	0	0	0	0	0	0	1
NW	2	0	0	0	0	0	0	2
NNW	2	0	0	0	0	0	0	2
TOTAL	247	3	0	0	0	0	0	250

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

SITE: BEAVER VALLEY

HOURS AT EACH WIND SPEED AND DIRECTION = 92100101-92123124 HOUR RANGE = 01 - 24  
 STABILITY CLASS: G D1/D2  
 ELEVATION: SPEED:SP 3SP DIRECTION:DI 3SP LAPSE:D11-P

WIND SPEED (MPH)

DIRECTION	WIND SPEED (MPH)							TOTAL
	1-3	4-7	8-12	13-18	19-24	>24 TOTAL		
N	6	0	0	0	0	0	6	
NNE	1	0	0	0	0	0	1	
NE	6	0	0	0	0	0	6	
ENE	23	0	0	0	0	0	23	
E	23	0	0	0	0	0	23	
ESE	45	0	0	0	0	0	45	
SE	53	0	0	0	0	0	53	
SSE	23	0	0	0	0	0	23	
S	15	4	0	0	0	0	19	
SSW	4	1	0	0	0	0	5	
SW	2	0	0	0	0	0	2	
WSW	1	0	0	0	0	0	1	
W	2	0	0	0	0	0	2	
WNW	3	0	0	0	0	0	3	
NW	2	0	0	0	0	0	2	
NNW	1	0	0	0	0	0	1	
TOTAL	210	5	0	0	0	0	215	

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

BEAVER VALLEY JOINT FREQUENCY DISTRIBUTION  
 GROUND LEVEL CONTINUOUS RELEASE  
 FOURTH QUARTER 1992 (10/1/92 - 12/31/92)

SITE: BEAVER VALLEY

HOURS AT EACH WIND SPEED AND DIRECTION  
 PERIOD OF RECORD = 92100101-92123124 HOUR RANGE = 01 - 24  
 STABILITY CLASS: ALL DT/DZ  
 ELEVATION: SPEED:SP 35P DIRECTION:DI 35P LAPSE:DT1-P

WIND DIRECTION	WIND SPEED(MPH)							>24	TOTAL
	1-3	4-7	8-12	13-18	19-24				
N	53	30	0	0	0	0	0	0	83
NNE	106	11	0	0	0	0	0	0	117
NE	139	25	0	0	0	0	0	0	164
ENE	133	22	0	0	0	0	0	0	155
E	97	17	0	0	0	0	0	0	114
ESE	138	8	0	0	0	0	0	0	146
SE	116	6	1	0	0	0	0	0	123
SSE	104	11	0	0	0	0	0	0	115
S	82	29	1	0	0	0	0	0	112
SSW	48	38	5	0	0	0	0	0	91
SW	35	111	52	2	1	0	0	0	201
WSW	31	173	69	3	0	0	0	0	276
W	44	115	34	1	0	0	0	0	194
WNW	38	73	7	0	0	0	0	0	118
NW	44	65	5	0	0	0	0	0	114
NNW	46	38	1	0	0	0	0	0	85
TOTAL	1254	772	175	6	1	0	0	0	2208

PERIODS OF CALM(HOURS): 0

VARIABLE DIRECTION 0

HOURS OF MISSING DATA: 0

BEAVER VALLEY JOINT FREQUENCY DISTRIBUTION  
 100 FT LEVEL CONTINUOUS RELEASE  
 FOURTH QUARTER 1992 (10/1/92 - 12/31/92)

SITE: BEAVER VALLEY

HOURS AT EACH WIND SPEED AND DIRECTION = 92100101-92123124 HOUR RANGE = 01 - 24  
 STABILITY CLASS: A DT/DZ  
 ELEVATION: SPEED:SP150P DIRECTION:D1150P LAPSE:DT1-P

WIND SPEED(MPH)

DIRECTION	WIND SPEED(MPH)						TOTAL
	1-3	4-7	8-12	13-18	19-24	>24 TOTAL	
N	2	2	2	0	0	0	6
NNE	1	3	1	0	0	0	5
NE	1	1	1	0	0	0	3
ENE	0	1	4	0	0	0	5
E	0	1	1	0	0	0	2
ESE	0	2	3	0	0	0	5
SE	0	1	3	0	0	0	4
SSE	0	1	4	0	0	0	5
S	0	2	1	1	0	0	4
SSW	0	0	4	0	0	0	4
SW	0	0	1	0	0	0	1
WSW	0	0	4	1	0	0	5
W	1	2	2	2	0	0	7
WNW	0	0	1	0	0	0	1
NW	1	3	3	0	0	0	7
NNW	0	0	1	0	0	0	1
TOTAL	6	19	36	4	0	0	65

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



BEAVER VALLEY JOINT FREQUENCY DISTRIBUTION  
 100 FT LEVEL CONTINUOUS RELEASE  
 FOURTH QUARTER 1992 (10/1/92 - 12/31/92)

SITE: BEAVER VALLEY

HOURS AT EACH WIND SPEED AND DIRECTION = 92100101-92123124 HOUR RANGE = 01 - 24  
 STABILITY CLASS: B DT/DZ  
 ELEVATION: SPEED:SP150P DIRECTION:D1150P LAPSE:DT1-P

WIND DIRECTION	WIND SPEED (MPH)						
	1-3	4-7	8-12	13-18	19-24	>24 TOTAL	TOTAL
N	0	1	0	0	0	0	1
NNE	0	1	0	0	0	0	1
NE	0	0	0	0	0	0	0
ENE	0	0	0	0	0	0	0
E	0	1	0	0	0	0	1
ESE	0	1	0	0	0	0	1
SE	0	0	0	0	0	0	0
SSE	0	0	1	0	0	0	1
S	0	0	0	0	0	0	0
SSW	0	2	2	0	0	0	4
SW	0	0	1	0	0	0	1
WSW	0	0	4	3	0	0	7
W	0	0	3	1	0	0	4
WNW	1	1	3	2	0	0	7
NW	0	5	1	0	0	0	6
NNW	0	1	1	0	0	0	2
TOTAL	1	13	16	6	0	0	36

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

BEAVER VALLEY JOINT FREQUENCY DISTRIBUTION  
100 FT LEVEL CONTINUOUS RELEASE  
FOURTH QUARTER 1992 (10/1/92 - 12/31/92)

SITE: BEAVER VALLEY

HOURS AT EACH WIND SPEED AND DIRECTION  
PERIOD OF RECORD = 92100101-92123124 HOUR RANGE = 01 - 24  
STABILITY CLASS: C DT/DZ  
ELEVATION: SPEED:SP150P DIRECTION:DI150P LAPSE:DT1-P

WIND DIRECTION	WIND SPEED (MPH)							>24 TOTAL
	1-3	4-7	8-12	13-18	19-24			
N	0	0	0	0	0	0	0	
NNE	0	0	0	0	0	0	0	
NE	0	0	0	0	0	0	0	
ENE	0	3	2	0	0	0	5	
E	0	0	0	0	0	0	0	
ESE	0	2	1	0	0	0	3	
SE	0	0	1	0	0	0	1	
SSE	0	1	0	0	0	0	1	
S	0	0	0	0	0	0	0	
SSW	0	1	2	0	0	0	3	
SW	0	0	1	0	0	0	1	
WSW	0	1	5	1	0	0	7	
W	0	1	6	3	0	0	10	
WNW	0	3	4	1	0	0	8	
NW	0	0	1	0	0	0	1	
NNW	1	0	0	0	0	0	1	
TOTAL	1	12	23	5	0	0	41	

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

BEAVER VALLEY JOINT FREQUENCY DISTRIBUTION  
 100 FT LEVEL CONTINUOUS RELEASE  
 FOURTH QUARTER 1992 (10/1/92 - 12/31/92)

SITE: BEAVER VALLEY

HOURS AT EACH WIND SPEED AND DIRECTION  
 PERIOD OF RECORD = 92100101-92123124 HOUR RANGE = 01 - 24  
 STABILITY CLASS: D DT/DZ  
 ELEVATION: SPEED:SP150P DIRECTION:DI150P LAPSE:DT1-P

WIND DIRECTION	WIND SPEED (MPH)							>24	TOTAL
	1-3	4-7	8-12	13-18	19-24				
N	12	20	2	0	0	0	0	0	34
NNE	14	25	11	0	0	0	0	0	50
NE	11	24	2	0	0	0	0	0	37
ENE	11	33	3	0	0	0	0	0	52
E	11	16	6	0	0	0	0	0	33
ESE	6	10	6	1	0	0	0	0	23
SE	6	14	4	0	0	0	0	0	24
SSE	0	5	6	0	0	0	0	0	11
S	4	12	7	1	0	0	0	0	24
SSW	5	7	6	0	0	0	0	0	18
SW	5	15	27	4	0	0	0	0	51
WSW	4	33	42	15	0	0	1	95	
W	3	39	98	32	6	3	3	181	
WNW	4	38	84	38	8	0	0	172	
NW	4	41	38	6	0	0	0	89	
NNW	5	13	2	0	0	0	0	20	
TOTAL	105	345	349	97	14	4	4	914	

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

BEAVER VALLEY JOINT FREQUENCY DISTRIBUTION  
 100 FT LEVEL CONTINUOUS RELEASE  
 FOURTH QUARTER 1992 (10/1/92 - 12/31/92)

SITE: BEAVER VALLEY

HOURS AT EACH WIND SPEED AND DIRECTION  
 PERIOD OF RECORD = 92100101-92123124 HOUR RANGE = 01 - 24  
 STABILITY CLASS: E DT/DZ  
 ELEVATION: SPEED:SP150P DIRECTION:DI150P LAPSE:DT1-P

		WIND SPEED(MPH)						
WIND DIRECTION		1-3	4-7	8-12	13-18	19-24	>24	TOTAL
N		11	7	2	0	0	0	20
NNE		15	7	5	0	0	0	27
NE		29	25	3	0	0	0	57
ENE		35	56	13	0	0	0	104
E		17	25	10	1	0	0	53
ESE		18	8	3	0	0	0	29
SE		13	8	2	1	0	0	24
SSE		10	8	5	1	0	0	24
S		7	13	7	1	0	0	28
SSW		10	19	2	0	0	0	31
SW		13	23	19	0	0	0	55
WSW		6	23	43	6	0	0	78
W		5	16	23	14	1	0	59
WNW		11	19	11	6	0	0	47
NW		5	24	2	1	0	0	32
NNW		8	11	0	0	0	0	19
TOTAL		213	292	150	31	1	0	687

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

BEAVER VALLEY JOINT FREQUENCY DISTRIBUTION  
 100 FT LEVEL CONTINUOUS RELEASE  
 FOURTH QUARTER 1992 (10/1/92 - 12/31/92)

SITE: BEAVER VALLEY

HOURS AT EACH WIND SPEED AND DIRECTION = 92100101-92123124 HOUR RANGE = 01 - 24  
 STABILITY CLASS: F DT/DZ  
 ELEVATION: SPEED:SP150P DIRECTION:DI150P LAPSE:DT1-P

WIND SPEED(MPH)

DIRECTION	WIND SPEED(MPH)							TOTAL
	1-3	4-7	8-12	13-18	19-24	>24 TOTAL		
N	9	2	0	0	0	0	11	
NNE	18	2	0	0	0	0	20	
NE	26	34	0	0	0	0	60	
ENE	12	29	3	0	0	0	44	
E	2	6	0	0	0	0	8	
ESE	0	3	0	0	0	0	3	
SE	2	1	0	0	0	0	3	
SSE	6	1	0	0	0	0	7	
S	9	4	2	0	0	0	15	
SSW	8	2	2	0	0	0	17	
SU	12	9	1	0	0	0	22	
MSW	12	7	0	0	0	0	19	
W	6	0	0	0	0	0	6	
WNW	5	1	0	0	0	0	6	
NW	3	0	0	0	0	0	3	
NNW	6	0	0	0	0	0	6	
TOTAL	136	106	8	0	0	0	250	

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

BEAVER VALLEY JOINT FREQUENCY DISTRIBUTION  
 100 FT LEVEL CONTINUOUS RELEASE  
 FOURTH QUARTER 1992 (10/1/92 - 12/31/92)

SITE: BEAVER VALLEY

HOURS AT EACH WIND SPEED AND DIRECTION  
 PERIOD OF RECORD = 92100101-92123124 HOUR RANGE = 01 - 24  
 STABILITY CLASS: G DT/DZ  
 ELEVATION: SPEED:SP150P DIRECTION:D1150P LAPSE:DT1-P

WIND DIRECTION		WIND SPEED(MPH)						
DIRECTION		1-3	4-7	8-12	13-18	19-24	>24 TOTAL	
N	15	0	0	0	0	0	0	15
NNE	27	2	0	0	0	0	0	29
NE	14	16	0	0	0	0	0	30
ENE	8	10	0	0	0	0	0	18
E	12	1	0	0	0	0	0	13
ESE	3	4	0	0	0	0	0	7
SE	2	3	0	0	0	0	0	5
SSE	2	3	0	0	0	0	0	5
S	3	1	0	0	0	0	0	4
SSW	13	20	3	0	0	0	0	36
SW	15	9	2	0	0	0	0	26
WSW	2	6	0	0	0	0	0	8
W	9	2	0	0	0	0	0	11
WNW	3	0	0	0	0	0	0	3
NW	3	0	0	0	0	0	0	3
NNW	2	0	0	0	0	0	0	2
TOTAL	133	27	5	0	0	0	0	215

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

BEAVER VALLEY JOINT FREQUENCY DISTRIBUTION  
 100 FT LEVEL CONTINUOUS RELEASE  
 FOURTH QUARTER 1992 (10/1/92 - 12/31/92)

SITE: BEAVER VALLEY

HOURS AT EACH WIND SPEED AND DIRECTION  
 PERIOD OF RECORD = 92100101-92123124 HOUR RANGE = 01 - 24  
 STABILITY CLASS: ALL DT/DZ  
 ELEVATION: SPEED:SP150P DIRECTION:DI150P LAPSE:DT1-P

WIND DIRECTION	WIND SPEED (MPH)						>24 TOTAL
	1-3	4-7	8-12	13-18	19-24		
N	49	32	6	0	0	0	87
NNE	75	40	17	0	0	0	132
NE	81	100	6	0	0	0	187
ENE	66	132	30	0	0	0	228
E	42	50	17	1	0	0	110
ESE	27	30	13	1	0	0	71
SE	23	27	10	1	0	0	61
SSE	18	19	16	1	0	0	54
S	23	32	17	3	0	0	75
SSW	36	56	21	0	0	0	113
SW	45	56	52	4	0	0	157
WSW	24	70	98	26	0	1	219
W	24	60	132	52	7	3	278
WNW	24	62	103	47	8	0	244
NW	16	73	45	7	0	0	141
NNW	22	25	4	0	0	0	51
TOTAL	595	864	587	143	15	4	2208

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

BEAVER VALLEY JOINT FREQUENCY DISTRIBUTION  
 ELEVATED LEVEL CONTINUOUS RELEASE  
 FOURTH QUARTER 1992 (10/1/92 - 12/31/92)

SITE: BEAVER VALLEY

HOURS AT EACH WIND SPEED AND DIRECTION = 92100101-92123124 HOUR RANGE = 01 - 24  
 STABILITY CLASS: A DT/DZ  
 ELEVATION: SPEED:SP500P DIRECTION:DIS00P LAPSE:DT2-P

DIRECTION	WIND SPEED(MPH)						
	1-3	4-7	8-12	13-18	19-24	>24 TOTAL	TOTAL
N	0	0	0	0	0	0	0
NNE	0	0	0	0	0	0	0
NE	0	0	0	0	0	0	0
ENE	0	0	0	0	0	0	0
E	0	0	0	0	0	0	0
ESE	0	0	0	0	0	0	0
SE	0	0	0	0	0	0	0
SSE	0	0	0	0	0	0	0
SW	0	0	0	0	0	0	0
SSW	0	0	0	0	0	0	0
WSW	0	0	0	0	0	0	0
W	0	0	0	0	0	0	0
WNW	0	0	0	0	0	0	0
NNW	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0

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



BEAVER VALLEY JOINT FREQUENCY DISTRIBUTION  
 ELEVATED LEVEL CONTINUOUS RELEASE  
 FOURTH QUARTER 1992 (10/1/92 - 12/31/92)  
 SITE: BEAVER VALLEY

HOURS AT EACH WIND SPEED AND DIRECTION = 921R0101-92123124 HOUR RANGE = 01 - 24  
 STABILITY CLASS: B DT/DZ  
 ELEVATION: SPEED:SP500P DIRECTION:D1500P LAPSE:DT2-P

WIND DIRECTION	WIND SPEED (MPH)						
	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	0	0	0	0	0	0	0
ENE	0	0	0	0	0	0	0
E	0	0	0	0	0	0	0
ESE	0	0	0	0	0	0	0
SE	0	0	0	0	0	0	0
SSE	0	0	0	0	0	0	0
S	0	0	0	0	0	0	0
SSW	0	0	0	0	0	0	0
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	0	0	0	0	0	0	0
NW	0	0	0	0	0	0	0
NNW	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0

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

SITE: BEAVER VALLEY

HOURS AT EACH WIND SPEED AND DIRECTION  
 PERIOD OF RECORD = 92100101-92123124 HOUR RANGE = 01 - 24  
 STABILITY CLASS: C DT/DZ  
 ELEVATION: SPEED:SP500P DIRECTION:DI500P LAPSE:DI2-P

DIRECTION	WIND SPEED (MPH)						
	1-3	4-7	8-12	13-18	19-24	>24 TOTAL	TOTAL
N	0	0	0	0	0	0	0
NNE	0	0	0	0	0	0	0
NE	0	0	0	0	0	0	0
ENE	0	0	0	0	0	0	0
E	0	0	0	0	0	0	0
ESE	0	0	0	0	0	0	0
SE	0	0	0	0	0	0	0
SSE	0	0	0	0	0	0	0
S	0	0	0	0	0	0	0
SSW	0	0	0	0	0	0	0
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	0	0	0	0	0	0	0
NW	0	0	0	0	0	0	0
NNW	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	10

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

BEAVER VALLEY JOINT FREQUENCY DISTRIBUTION  
 ELEVATED LEVEL CONTINUOUS RELEASE  
 FOURTH QUARTER 1992 (10/1/92 - 12/31/92)

SITE: BEAVER VALLEY

HOURS AT EACH WIND SPEED AND DIRECTION  
 PERIOD OF RECORD = 92100101-92123124 HOUR RANGE = 01 - 24  
 STABILITY CLASS: 0 DT/DZ  
 ELEVATION: SPEED:SP500P DIRECTION:DI500P LAPSE:DT2-P

WIND DIRECTION	WIND SPEED (MPH)						>24 TOTAL
	1-3	4-7	8-12	13-18	19-24		
N	9	22	24	8	0	0	63
NNE	10	15	16	1	0	0	42
NE	4	32	13	2	0	0	51
ENE	1	25	21	2	0	0	49
E	5	10	16	9	0	0	40
ESE	6	21	30	14	1	0	72
SE	3	16	18	10	10	0	57
SSE	2	9	17	6	3	0	37
S	1	6	16	14	3	0	40
SSW	4	5	17	11	1	1	39
SW	7	6	36	58	24	1	132
WSW	3	10	60	72	13	2	160
W	3	10	88	97	34	11	243
WNW	3	25	82	64	28	11	213
NW	6	8	35	17	2	0	68
NNW	4	13	28	9	1	0	55
TOTAL	71	233	517	394	120	26	1361

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

BEAVER VALLEY JOINT FREQUENCY DISTRIBUTION  
 ELEVATED LEVEL CONTINUOUS RELEASE  
 FOURTH QUARTER 1992 (10/1/92 - 12/31/92)

SITE: BEAVER VALLEY

HOURS AT EACH WIND SPEED AND DIRECTION  
 PERIOD OF RECORD = 92100101-92123124 HOUR RANGE = 01 - 24  
 STABILITY CLASS: E DT/DZ  
 ELEVATION: SPEED:SP500P DIRECTION:DI500P LAPSE:DT2-P

		WIND SPEED (MPH)						
		1-3	4-7	8-12	13-18	19-24	>24	TOTAL
N		2	3	3	1	0	0	9
NNE		4	0	2	1	0	0	7
NE		7	6	7	9	0	0	29
ENE		5	7	5	2	0	0	19
E		21	19	10	1	0	0	51
ESE		10	25	13	1	0	0	49
SE		7	34	25	3	0	0	69
SSE		8	16	21	7	1	1	54
S		2	16	28	15	0	0	61
SSW		3	9	13	17	1	0	43
SW		5	7	16	27	9	1	65
WSW		5	12	16	3	2	0	38
W		7	16	13	4	0	0	40
WNW		9	10	8	0	0	0	27
NW		4	5	4	2	0	0	15
NNW		3	3	6	0	0	0	12
TOTAL		102	188	190	93	13	2	588

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

BEAVER VALLEY JOINT FREQUENCY DISTRIBUTION  
 ELEVATED LEVEL CONTINUOUS RELEASE  
 FOURTH QUARTER 1992 (10/1/92 - 12/31/92)

SITE: BEAVER VALLEY

HOURS AT EACH WIND SPEED AND DIRECTION = 92100101-92123124 HOUR RANGE = 01 - 24  
 STABILITY CLASS: F DT/DZ  
 ELEVATION: SPEED:SP500P DIRECTION:DIS00P LAPSE:DT2-P

WIND SPEED(MPH)

DIRECTION	1-3	4-7	8-12	13-18	19-24	>24 TOTAL
N	2	1	0	0	0	3
NNE	6	0	0	0	0	6
NE	5	4	1	0	0	10
ENE	6	0	1	0	0	7
E	12	5	0	0	0	17
ESE	5	5	1	0	0	11
SE	4	12	11	3	0	30
SSE	3	8	8	2	2	23
S	1	3	4	8	0	16
SSW	3	8	1	4	0	16
SW	3	5	7	17	3	35
WSW	3	14	9	6	0	32
W	5	11	0	1	0	17
WNW	0	3	0	0	0	3
NW	2	0	0	0	0	2
NNW	3	0	0	0	0	3
TOTAL	63	79	43	41	5	2

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

SITE: BEAVER VALLEY

HOURS AT EACH WIND SPEED AND DIRECTION = 92100101-92123124 HOUR RANGE = 01 - 24  
 STABILITY CLASS: G DT/DZ  
 ELEVATION: SPEED:SP500P DIRECTION:DIS00P LAPSE:DT2-P

WIND SPEED (MPH)

WIND DIRECTION	WIND SPEED (MPH)							TOTAL
	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	0	0	0	0	0	0	0	
ENE	0	0	0	0	0	0	0	
E	0	1	0	0	0	0	1	
ESE	1	0	0	0	0	0	1	
SE	0	0	0	0	0	0	0	
SSE	0	0	0	2	0	0	2	
S	0	1	0	0	0	0	1	
SSW	0	1	0	0	0	0	1	
SW	0	0	5	0	0	0	5	
WSW	0	0	1	0	0	0	1	
W	0	1	0	0	0	0	1	
WNW	0	0	0	0	0	0	0	
WW	0	0	0	0	0	0	0	
NNW	0	0	0	0	0	0	0	
TOTAL	1	4	4	8	1	0	18	

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

BEAVER VALLEY JOINT FREQUENCY DISTRIBUTION  
 ELEVATED LEVEL CONTINUOUS RELEASE  
 FOURTH QUARTER 1992 (10/1/92 - 12/31/92)

R of R

SITE: BEAVER VALLEY

HOURS AT EACH WIND SPEED AND DIRECTION  
 PERIOD OF RECORD = 92100101-92123124 HOUR RANGE = 01 - 24  
 STABILITY CLASS: ALL DT/DZ  
 ELEVATION: SPEED:SP500P DIRECTION:DI500P LAPSE:DT2-P

WIND DIRECTION	WIND SPEED (MPH)							>24	TOTAL
	1-3	4-7	8-12	13-18	19-24				
N	13	26	27	9	0	0	0	75	
NNE	20	15	20	2	0	0	0	57	
NE	16	42	21	11	0	0	0	90	
ENE	12	32	29	5	0	0	0	78	
E	38	35	26	10	0	0	0	109	
ESE	22	51	45	15	1	0	0	134	
SE	14	62	55	16	10	0	0	157	
SSE	13	33	47	18	6	1	1	118	
S	4	26	48	37	3	0	0	118	
SSW	10	23	32	33	2	1	1	101	
SW	15	18	62	107	37	2	2	241	
WSW	11	36	85	82	15	2	2	231	
W	15	38	101	102	34	11	11	301	
WNW	12	38	90	64	28	11	11	243	
NW	12	13	39	19	2	0	0	85	
NNW	10	16	34	9	1	0	0	70	
TOTAL	237	584	761	539	139	28	28	2208	

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

SITE: BEAVER VALLEY

HOURS AT EACH WIND SPEED AND DIRECTION = 92101116-92122320 HOUR RANGE = 01 - 24  
 PERIOD OF RECORD = 92101116-92122320 DT/DZ  
 STABILITY CLASS: A DT/DZ  
 ELEVATION: SPEED:SP150P DIRECTION:D1150P LAPSE:DT1-P

WIND DIRECTION	WIND SPEED (MPH)							TOTAL
	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	0	0	0	1	0	0	0	
ENE	0	0	0	0	0	0	0	
E	0	0	0	0	0	0	0	
ESE	0	0	0	0	0	0	0	
SE	0	0	0	0	0	0	0	
SSE	0	0	0	0	0	0	0	
S	0	0	0	0	0	0	0	
SSW	0	0	0	0	0	0	0	
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	0	0	0	0	0	0	0	
NNW	0	0	0	0	0	0	0	
NW	0	0	0	0	0	0	0	
NNW	0	0	0	0	0	0	0	
TOTAL	0	0	0	0	0	0	0	

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



BEAVER VALLEY JOINT FREQUENCY DISTRIBUTION  
 100 FT LEVEL BATCH RELEASES  
 FOURTH QUARTER 1992 (SPECIFIC DATE PERIODS)

SITE: BEAVER VALLEY

HOURS AT EACH WIND SPEED AND DIRECTION  
 PERIOD OF RECORD = 92101116-92122320 HOUR RANGE = 01 - 24  
 STABILITY CLASS: B DT/DZ  
 ELEVATION: SPEED:SP150P DIRECTION:DI150P LAPSE:DT1-P

WIND DIRECTION	WIND SPEED (MPH)							>24 TOTAL
	1-3	4-7	8-12	13-18	19-24			
N	0	0	0	0	0	0	0	
NNE	0	0	0	0	0	0	0	
NE	0	0	0	0	0	0	0	
ENE	0	0	0	0	0	0	0	
E	0	0	0	0	0	0	0	
ESE	0	0	0	0	0	0	0	
SE	0	0	0	0	0	0	0	
SSE	0	0	0	0	0	0	0	
S	0	0	0	0	0	0	0	
SSW	0	0	0	0	0	0	0	
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	0	0	0	0	0	0	0	
NW	0	0	0	0	0	0	0	
NNW	0	0	1	0	0	0	1	
TOTAL	0	0	1	0	0	0	1	

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

BEAVER VALLEY JOINT FREQUENCY DISTRIBUTION  
 100 FT LEVEL BATCH RELEASES  
 FOURTH QUARTER 1992 (SPECIFIC DATE PERIODS)

SITE: BEAVER VALLEY

HOURS AT EACH WIND SPEED AND DIRECTION = 92101116-92122320 HOUR RANGE = 01 - 24  
 STABILITY CLASS: C DT/DZ  
 ELEVATION: SPEED:SP150P DIRECTION:D1150P LAPSE:DT1-P

WIND DIRECTION	WIND SPEED (MPH)						
	1-3	4-7	8-12	13-18	19-24	>24 TOTAL	TOTAL
N	0	0	0	0	0	0	0
NNE	0	0	0	0	0	0	0
NE	0	0	0	0	0	0	0
ENE	0	0	0	0	0	0	0
E	0	0	0	0	0	0	0
ESE	0	0	0	0	0	0	0
SE	0	0	0	0	0	0	0
SSE	0	0	0	0	0	0	0
SW	0	0	0	0	0	0	0
SSW	0	0	0	0	0	0	0
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	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0

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

BEAVER VALLEY JOINT FREQUENCY DISTRIBUTION  
 100 FT LEVEL BATCH RELEASES  
 FOURTH QUARTER 1992 (SPECIFIC DATE PERIODS)

SITE: BEAVER VALLEY

HOURS AT EACH WIND SPEED AND DIRECTION = 92101116-92122320 HOUR RANGE = 01 - 24  
 PERIOD OF RECORD = 92101116-92122320 DT/DZ  
 STABILITY CLASS: D DT/DZ  
 ELEVATION: SPEED:SP150P DIRECTION:D1150P LAPSE:DT1-P

WIND SPEED (MPH)

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

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

BEAVER VALLEY JOINT FREQUENCY DISTRIBUTION  
 100 FT LEVEL PATCH RELEASES  
 FOURTH QUARTER 1992 (SPECIFIC DATE PERIODS)

SITE: BEAVER VALLEY

HOURS AT EACH WIND SPEED AND DIRECTION = 92101116-92122320 HOUR RANGE = 01 - 24  
 PERIOD OF RECORD = 92101116-92122320  
 STABILITY CLASS: E DT/DZ  
 ELEVATION: SPEED:SP150P DIRECTION:D1150P LAPSE:DT1-P

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

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

BEAVER VALLEY JOINT FREQUENCY DISTRIBUTION  
 100 FT LEVEL BATCH RELEASES  
 FOURTH QUARTER 1992 (SPECIFIC DATE PERIODS)

SITE: BEAVER VALLEY

HOURS AT EACH WIND SPEED AND DIRECTION = 92101116-92122320 HOUR RANGE = 01 - 24  
 STABILITY CLASS: F DT/DZ  
 ELEVATION: SPEED:SP150P DIRECTION:D1150P LAPSE:DT1-P

WIND SPEED (MPH)

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

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

BEAVER VALLEY JOINT FREQUENCY DISTRIBUTION  
 100 FT LEVEL BATCH RELEASES  
 FOURTH QUARTER 1992 (SPECIFIC DATE PERIODS)

SITE: BEAVER VALLEY

HOURS AT EACH WIND SPEED AND DIRECTION = 92101116-92122320 HOUR RANGE = 01 - 24  
 STABILITY CLASS: G DT/DZ  
 ELEVATION: SPEED:SP150P DIRECTION:D1150P LAPSE:DT1-P

DIRECTION	WIND SPEED(MPH)						
	1-3	4-7	8-12	13-18	19-24	>24 TOTAL	TOTAL
N	0	0	0	0	0	0	0
NNE	1	0	0	0	0	0	1
NE	0	0	0	0	0	0	0
ENE	0	0	0	0	0	0	0
E	0	0	0	0	0	0	0
ESE	0	0	0	0	0	0	0
SE	0	0	0	0	0	0	0
SSE	0	0	0	0	0	0	0
SW	2	0	0	0	0	0	2
WSW	0	0	0	0	0	0	0
W	1	0	0	0	0	0	1
WNW	0	0	0	0	0	0	0
NW	0	0	0	0	0	0	0
NNW	0	0	0	0	0	0	0
TOTAL	4	0	0	0	0	0	4

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

BEAVER VALLEY JOINT FREQUENCY DISTRIBUTION  
 100 FT LEVEL BATCH RELEASES  
 FOURTH QUARTER 1992 (SPECIFIC DATE PERIODS)

SITE: BEAVER VALLEY

HOURS AT EACH WIND SPEED AND DIRECTION  
 PERIOD OF RECORD = 92101116-92122320 HOUR RANGE = 01 - 24  
 STABILITY CLASS: ALL DT/DZ  
 ELEVATION: SPEED:SP150P DIRECTION:DI150P LAPSE:DT1-P

WIND DIRECTION	WIND SPEED (MPH)						>24 TOTAL
	1-3	4-7	8-12	13-18	19-24		
N	0	1	0	0	0	0	1
NNE	1	0	0	0	0	0	1
NE	2	0	0	0	0	0	2
ENE	0	0	0	0	0	0	0
E	0	0	0	0	0	0	0
ESE	0	0	0	0	0	0	0
SE	0	0	0	0	0	0	0
SSE	0	0	0	0	0	0	0
S	0	0	0	0	0	0	0
SSW	0	0	0	0	0	0	0
SW	3	0	1	0	0	0	4
WSW	0	3	1	0	0	0	4
W	2	4	8	1	0	0	15
WNW	1	2	2	0	0	0	5
NW	1	1	0	0	0	0	2
NNW	0	0	1	0	0	0	1
TOTAL	10	11	13	1	0	0	35

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

SITE: BEAVER VALLEY

HOURS AT EACH WIND SPEED AND DIRECTION = 92093024-92112520 HOUR RANGE = 01 - 24  
 PERIOD OF RECORD = DT/DZ  
 STABILITY CLASS: #  
 ELEVATION: SPEED:SP500P DIRECTION:DIS00P LAPSE:DT2-P

WIND DIRECTION	WIND SPEED (MPH)						
	1-3	4-7	8-12	13-18	19-24	>24 TOTAL	TOTAL
N	0	0	0	0	0	0	0
NNE	0	0	0	0	0	0	0
NE	0	0	0	0	0	0	0
ENE	0	0	0	0	0	0	0
E	0	0	0	0	0	0	0
ESE	0	0	0	0	0	0	0
SE	0	0	0	0	0	0	0
SSE	0	0	0	0	0	0	0
S	0	0	0	0	0	0	0
SSW	0	0	0	0	0	0	0
SW	0	0	0	0	0	0	0
SSW	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	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0

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



BEAVER VALLEY JOINT FREQUENCY DISTRIBUTION  
 ELEVATED LEVEL RATCH RELEASES  
 FOURTH QUARTER 1992 (SPECIFIC DATE PERIODS)

SITE: BEAVER VALLEY

HOURS AT EACH WIND SPEED AND DIRECTION = 92093024-92112520 HOUR RANGE = 01 - 24  
 PERIOD OF RECORD = DT/DZ  
 STABILITY CLASS: B  
 ELEVATION: SPEED:SP500P DIRECTION:D1500P LAPSE:DT2-P

WIND DIRECTION	WIND SPEED(MPH)						
	1-3	4-7	8-12	13-18	19-24	>24 TOTAL	TOTAL
N	0	0	0	0	0	0	0
NNE	0	0	0	0	0	0	0
NE	0	0	0	0	0	0	0
ENE	0	0	0	0	0	0	0
E	0	0	0	0	0	0	0
ESE	0	0	0	0	0	0	0
SE	0	0	0	0	0	0	0
SSE	0	0	0	0	0	0	0
S	0	0	0	0	0	0	0
SSW	0	0	0	0	0	0	0
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	0	0	0	0	0	0	0
NW	0	0	0	0	0	0	0
NNW	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0

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

BEAVER VALLEY JOINT FREQUENCY DISTRIBUTION  
 ELEVATED LEVEL BATCH RELEASES  
 FOURTH QUARTER 1992 (SPECIFIC DATE PERIODS)

SITE: BEAVER VALLEY

HOURS AT EACH WIND SPEED AND DIRECTION = 92093024-92112520 HOUR RANGE = 01 - 24  
 STABILITY CLASS: C DT/DZ  
 ELEVATION: SPEED;SP500P DIRECTION;D1500P LAPSE;DT2-P

DIRECTION	WIND SPEED (MPH)						
	1-3	4-7	8-12	13-18	19-24	>24 TOTAL	TOTAL
N	0	0	0	0	0	0	0
NNE	0	0	3	0	0	0	3
NE	0	0	0	0	0	0	0
ENE	0	0	2	1	0	0	3
E	0	0	0	0	0	0	0
ESE	0	0	0	0	0	0	0
SE	0	0	0	0	0	0	0
SSE	0	0	0	0	0	0	0
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	0	0	0	0	0	0	0
NW	0	0	0	0	0	0	0
NNW	0	0	0	0	0	0	0
TOTAL	0	0	6	2	0	0	8

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

BEAVER VALLEY JOINT FREQUENCY DISTRIBUTION  
 ELEVATED LEVEL BATCH RELEASES  
 FOURTH QUARTER 1992 (SPECIFIC DATE PERIODS)

SITE: BEAVER VALLEY

HOURS AT EACH WIND SPEED AND DIRECTION  
 PERIOD OF RECORD = 92093024-92112520 HOUR RANGE = 01 - 24  
 STABILITY CLASS: D DT/DZ  
 ELEVATION: SPEED:SP500P DIRECTION:DI500P LAPSE:DT2-P

WIND SPEED(MPH)

WIND DIRECTION	1-3	4-7	8-12	13-18	19-24	>24	TOTAL
N	4	3	3	0	0	0	10
NNE	2	3	1	1	0	0	7
NE	1	6	6	2	0	0	15
ENE	0	7	10	1	0	0	18
E	1	4	4	6	0	0	15
ESE	0	4	7	1	0	0	12
SE	1	1	0	0	0	0	2
SSE	0	2	2	0	2	0	6
S	1	1	3	4	3	0	12
SSW	1	0	1	0	0	1	3
SW	1	1	5	8	0	0	15
WSW	1	4	10	16	3	0	34
W	0	0	11	11	7	0	29
WNW	0	4	10	2	3	1	20
NW	0	2	0	0	0	0	2
NNW	0	0	1	0	0	0	1
TOTAL	13	42	74	52	18	2	201

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

BEAVER VALLEY JOINT FREQUENCY DISTRIBUTION  
 ELEVATED LEVEL BATCH RELEASES  
 FOURTH QUARTER 1992 (SPECIFIC DATE PERIODS)

SITE: BEAVER VALLEY

HOURS AT EACH WIND SPEED AND DIRECTION = 92093024-92112520 HOUR RANGE = 01 - 24  
 PERIOD OF RECORD = 92093024-92112520  
 STABILITY CLASS: E DT/DZ  
 ELEVATION: SPEED:SP500P DIRECTION:D1500P LAPSE:DT2-P

WIND SPEED(MPH)

DIRECTION	WIND SPEED(MPH)						TOTAL
	1-3	4-7	8-12	13-18	19-24	>24 TOTAL	
N	1	1	1	1	0	0	4
NNE	2	0	0	0	0	0	2
NE	1	2	7	8	0	0	18
ENE	0	2	3	1	0	0	6
E	4	4	0	0	0	0	8
ESE	1	2	0	0	0	0	3
SE	0	3	1	0	0	0	4
SSE	0	2	2	5	0	0	9
S	0	1	4	2	0	0	7
SSW	0	0	2	4	0	0	6
SW	2	2	4	3	0	0	11
WSW	0	6	4	0	0	0	10
W	1	5	0	0	0	0	6
WNW	0	3	1	0	0	0	4
NW	3	0	0	0	0	0	3
NNW	1	0	0	0	0	0	1
TOTAL	16	33	29	24	0	0	102

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

BEAVER VALLEY JOINT FREQUENCY DISTRIBUTION  
 ELEVATED LEVEL BATCH RELEASES  
 FOURTH QUARTER 1992 (SPECIFIC DATE PERIODS)

SITE: BEAVER VALLEY

HOURS AT EACH WIND SPEED AND DIRECTION  
 PERIOD OF RECORD = 92093024-92112520 HOUR RANGE = 01 - 24  
 STABILITY CLASS: F DT/DZ  
 ELEVATION: SPEED:SP500P DIRECTION:DI500P LAPSE:DT2-P

WIND SPEED(MPH)

WIND DIRECTION	1-3	4-7	8-12	13-18	19-24	>24	TOTAL
N	1	0	0	0	0	0	1
NNE	1	0	0	0	0	0	1
NE	1	1	1	0	0	0	3
ENE	3	0	1	0	0	0	4
E	6	4	0	0	0	0	10
ESE	1	3	0	0	0	0	4
SE	1	5	1	2	0	0	9
SSE	1	3	0	0	0	0	4
S	1	1	1	0	0	0	3
SSW	2	0	0	0	0	0	2
SW	0	0	5	8	1	0	14
WSW	0	3	3	1	0	0	7
W	3	5	0	0	0	0	8
WNW	0	1	0	0	0	0	1
NW	0	0	0	0	0	0	0
NNW	2	0	0	0	0	0	2
TOTAL	23	26	12	11	1	0	73

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

BEAVER VALLEY JOINT FREQUENCY DISTRIBUTION  
 ELEVATED LEVEL RATCH RELEASES  
 FOURTH QUARTER 1992 (SPECIFIC DATE PERIODS)

SITE: BEAVER VALLEY

HOURS AT EACH WIND SPEED AND DIRECTION = 92093024-92112520 HOUR RANGE = 01 - 24  
 STABILITY CLASS: G DI/DZ  
 ELEVATION: SPEED:SP500P DIRECTION:D1500P LAPSE:DT2-P

DIRECTION	WIND SPEED (MPH)						
	1-3	4-7	8-12	13-18	19-24	>24 TOTAL	TOTAL
N	0	0	0	0	0	0	0
NNE	0	0	0	0	0	0	0
NE	0	0	0	0	0	0	0
ENE	0	0	0	0	0	0	0
E	0	1	0	0	0	0	1
ESE	1	0	0	0	0	0	1
SE	0	0	0	0	0	0	0
SSE	0	0	0	0	0	0	0
S	0	0	0	0	0	0	0
SSW	0	0	0	0	0	0	0
SW	0	0	1	0	0	0	1
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	0	0	0	0	0	0	0
TOTAL	1	1	1	0	0	0	3

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

BEAVER VALLEY JOINT FREQUENCY DISTRIBUTION  
 ELEVATED LEVEL BATCH RELEASES  
 FOURTH QUARTER 1992 (SPECIFIC DATE PERIODS)

SITE: BEAVER VALLEY

HOURS AT EACH WIND SPEED AND DIRECTION  
 PERIOD OF RECORD = 92093024-92112520 HOUR RANGE = 01 - 24  
 STABILITY CLASS: ALL DT/DZ  
 ELEVATION: SPEED:SP500P DIRECTION:DI500P LAPSE:DT2-P

WIND DIRECTION	WIND SPEED (MPH)								>24	TOTAL
	1-3	4-7	8-12	13-18	19-24					
N	6	4	4	1	0	0	0	0	15	
NNE	5	3	4	1	0	0	0	0	13	
NE	3	9	14	10	0	0	0	0	36	
ENE	3	9	16	3	0	0	0	0	31	
E	11	13	4	6	0	0	0	0	34	
ESE	3	9	7	1	0	0	0	0	20	
SE	2	9	2	2	0	0	0	0	15	
SSE	1	7	5	6	2	0	0	0	21	
S	2	3	8	6	3	0	0	0	22	
SSW	3	0	3	4	0	1	0	1	11	
SW	3	3	15	19	1	0	0	0	41	
WSW	1	13	17	17	3	0	0	0	51	
W	4	10	11	11	7	0	0	0	43	
WNW	0	8	11	2	3	1	0	0	25	
NW	3	2	0	0	0	0	0	0	5	
NNW	3	0	1	0	0	0	0	0	4	
TOTAL	53	102	122	89	19	2	0	0	387	

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