

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

04121 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.

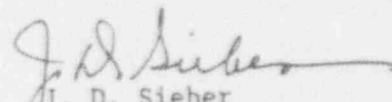
There was one abnormal gaseous release during the report period, it occurred on October 22, 1992. Although the release was unplanned, it was determined to be within the Radiological Effluent Technical Specification/Offsite Dose Calculation Manual Release Limits, and no reportings were required per 10 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  $9.44\text{E-}3$  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.

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JEH8

If there are any questions concerning this report, please contact  
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Sincerely,

  
J. D. Sieber  
Senior Vice President

ATL/laf

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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      4th      Est. total
#                               Quarter    Quarter    Error, %
#
*****

```

## A. Fission &amp; 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  2.63E+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      8.26E-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

## GASGEOUS EFFLUENTS - ELEVATED RELEASES

		CONTINUOUS MODE		BATCH MODE	
		3rd	4th	3rd	4th
Nuclides released		Quarter	Quarter	Quarter	Quarter
		Unit			
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	
*****						
		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

		CONTINUOUS MODE		BATCH MODE	
		3rd	4th	3rd	4th
Nuclides released		Quarter	Quarter	Quarter	Quarter
Unit					
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, %
A. Fission & activation products				
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. Tritium				
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	
C. Dissolved and entrained gases				
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	
D. Gross alpha radioactivity				
1. Total release	Ci	LLD	LLD	2.89E+01
E. Volume of waste released (prior to dilution)				
	liters	2.35E+06	1.53E+06	1.12E+01
F. Volume of dilution water used during period				
	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	
		3rd	4th	3rd	4th
Nuclides released		Quarter	Quarter	Quarter	Quarter
1. Fission and activation products					
beryllium-7	Cl	N/A	N/A	LLD	LLD
sodium-24	Cl	N/A	N/A	1.87E-05	2.23E-05
chromium-51	Cl	N/A	N/A	1.06E-03	LLD
manganese-54	Cl	N/A	N/A	6.24E-04	4.18E-04
iron-55	Cl	N/A	N/A	5.50E-02	3.25E-02
iron-59	Cl	N/A	N/A	1.76E-03	LLD
cobalt-57	Cl	N/A	N/A	1.90E-05	1.49E-05
cobalt-58	Cl	N/A	N/A	8.16E-03	2.43E-03
cobalt-60	Cl	N/A	N/A	1.03E-02	1.01E-02
zinc-65	Cl	N/A	N/A	LLD	LLD
strontium-89	Cl	N/A	N/A	5.70E-07	LLD
strontium-90	Cl	N/A	N/A	LLD	LLD
zirconium/niobium-95	Cl	N/A	N/A	1.02E-03	9.27E-05
niobium-97	Cl	N/A	N/A	4.14E-03	6.94E-04
molybdenum-99	Cl	N/A	N/A	LLD	3.39E-05
technetium-99m	Cl	N/A	N/A	LLD	4.91E-05
ruthenium-103	Cl	N/A	N/A	4.46E-05	LLD
silver-110m	Cl	N/A	N/A	4.34E-03	4.79E-04
antimony-124	Cl	N/A	N/A	LLD	3.08E-05
antimony-125	Cl	N/A	N/A	7.99E-04	7.54E-04
iodine-131	Cl	N/A	N/A	4.93E-05	1.07E-03
iodine-133	Cl	N/A	N/A	LLD	1.13E-04
cesium-134	Cl	N/A	N/A	LLD	LLD
cesium-137	Cl	N/A	N/A	1.36E-04	1.88E-04
barium/lanthanum-140	Cl	N/A	N/A	LLD	LLD
cerium-141	Cl	N/A	N/A	LLD	LLD
cerium-144	Cl	N/A	N/A	LLD	LLD
unidentified	Cl	N/A	N/A	NONE	NONE
Total for period	Cl	0.00E+00	0.00E+00	8.75E-02	4.91E-02
2. Dissolved and entrained gases					
argon-41	Cl	N/A	N/A	5.03E-04	LLD
krypton-85	Cl	N/A	N/A	LLD	LLD
xenon-133	Cl	N/A	N/A	3.45E-03	1.49E-02
xenon-133m	Cl	N/A	N/A	LLD	2.01E-04
xenon-135	Cl	N/A	N/A	5.15E-05	4.66E-04
unidentified	Cl	N/A	N/A	NONE	NONE
Total for period	Cl	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

SFMH-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 %	
De-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 %	1.98E+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 %	1.94E-03 %	0.00E+00 %	
Pu-239/240	6.93E-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				
Type	10	3	0	
of				
Container	Type A	0	0	
Used	Type B	0	0	
	Large Quantity	0	0	
Solidification	Cement	0	0	
Agent	Urea Formaldehyde	0	0	
Used	None	10	3	
Mode of	Truck	10	3	
Transport	Rail	0	0	
Final	Beatty, NV	1	0	
Destination	Barnwell, SC	4	0	
	Oak Ridge, TN (2)	5	2	
	Wampum, PA (2)	0	1	
Waste	Class A	9	3	
Class	Class B	1	0	
per 10 CFR 61	Class C	0	0	
	> Class C	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 SBG 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 SBG 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	LIQUID	FILTER PAPER / CHARCOAL
	GRAB SAMPLE	GRAB SAMPLE	CONTINUOUS EFFLUENT SAMPLE
	(1000 cc)	(1000 ml)	(2.85E+8 cc) **
*****			
NUCLIDE			
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	8.06E-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		% of		% of		% of		% of		% of	
Batch Releases		Dose	Tech Spec Limit	Dose	Tech Spec Limit	Dose	Tech Spec Limit	Dose	Tech Spec Limit	Dose	Tech Spec Limit
*****											
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		
GASEOUS EFFLUENTS		% of		% of		% of		% of		% of		
Batch & Continuous Releases		Dose	Tech Spec Limit	Dose	Tech Spec Limit	Dose	Tech Spec Limit	Dose	Tech Spec Limit	Dose	Tech Spec Limit	
*****												
(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	1.6920	
	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		Dose		Dose		Dose		Dose	
Batch Releases		% of Tech Spec Limit		% of Tech Spec Limit		% of Tech Spec Limit		% of Tech Spec Limit		% of Tech Spec Limit	
O R G A N (1)	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
	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 2		1st Quarter		2nd Quarter		3rd Quarter		4th Quarter		Year	
GASEOUS EFFLUENTS		Dose		Dose		Dose		Dose		Dose	
Batch & Continuous Releases		% of Tech Spec Limit		% of Tech Spec Limit		% of Tech Spec Limit		% of Tech Spec Limit		% of Tech Spec Limit	
(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
O R G A N (3)	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
	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).

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 8

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)							
	1-3	4-7	8-12	13-18	19-24	>24	TOTAL	
N	7	14	0	0	0	0	21	
NNE	11	3	0	0	0	0	14	
NE	10	2	0	0	0	0	12	
ENE	1	6	0	0	6	0	7	
E	6	6	0	0	0	0	12	
ESE	14	0	0	0	0	0	14	
SE	9	0	0	0	0	0	9	
SSE	9	2	0	0	0	0	11	
S	6	10	0	0	0	0	16	
SSW	4	13	0	0	0	0	17	
SW	2	11	3	0	0	0	16	
WSW	5	26	8	0	0	0	39	
W	3	28	3	0	0	0	39	
WNW	5	20	0	0	0	0	25	
NW	10	14	0	0	0	0	24	
NNW	8	5	0	0	0	0	13	
TOTAL	115	160	14	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 DT/DZ  
ELEVATION: SPEED:SP 3SP DIRECTION:DI 3SP LAPSE:DT1-P

WIND SPEED(MPH)

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

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



SITE: BEAVER VALLEY

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

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

PERIODS OF CALM(HOURS): 23

VARIABLE DIRECTION 0

HOURS OF MISSING DATA: 0

SITE: BEAVER VALLEY

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

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

TOTAL 370 9 0 0 0 0 0 392

PERIODS OF CALM(HOURS): 23

UNRECORDED DIRECTION 0

40% 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	37
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 SPEED(MPH)

WIND DIRECTION	1-3	4-7	8-12	13-18	19-24	>24	TOTAL
N	60	31	0	0	0	0	91
NNE	68	3	0	0	0	0	71
NE	84	2	0	0	0	0	86
ENE	95	6	0	0	0	0	102
E	141	7	0	0	0	0	152
ESE	192	0	0	0	0	0	201
SE	193	0	0	0	0	0	198
SSE	143	2	0	0	0	0	147
S	137	28	0	0	0	0	166
SSW	82	69	5	0	0	0	156
SW	62	111	39	0	0	0	212
WSW	46	130	34	0	0	0	210
W	63	66	8	0	0	0	138
WNW	43	43	2	0	0	0	88
NW	66	6	0	0	0	0	102
NNW	55	33	0	0	0	0	88
TOTAL	1530	567	88	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)							TOTAL
	1-3	4-7	8-12	13-18	19-24	>24	TOTAL	
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 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	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 SPEED (MPH)							
		1-3	4-7	8-12	13-18	19-24	>24	TOTAL	
WIND DIRECTION									
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	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 SPEED (MPH)							
WIND DIRECTION	1-3	4-7	8-12	13-18	19-24	>24	TOTAL
N	4	1	1	0	0	0	6
NNE	8	5	1	1	0	0	15
NE	6	3	0	0	0	0	9
ENE	16	14	1	1	0	0	32
E	10	10	6	2	0	0	28
ESE	4	4	2	1	0	0	11
SE	5	3	3	0	0	0	11
SSE	5	4	3	3	0	0	15
S	5	4	5	2	0	0	16
SSW	7	5	4	6	0	0	22
SW	6	2	1	5	7	0	21
WSW	5	7	1	0	0	0	13
W	8	5	0	0	0	0	14
WNW	6	10	0	0	0	0	16
NW	8	6	4	0	0	0	18
NNW	4	1	2	0	0	0	7
TOTAL	107	84	34	21	7	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
NNE	0	0	0	0	0			0
NE	0	0	0	0	0			0
ENE	0	0	0	0	0			0
E	0	0	0	0	0			0
ESE	0	0	0	0	0			0
SE	0	0	0	0	0			0
SSE	0	0	0	0	0			0
S	0	0	0	0	0			0
SSW	0	0	0	0	0			0
SW	0	0	0	0	0			0
WSW	0	0	0	0	0			0
W	0	0	0	0	0			0
WNW	0	0	0	0	0			0
NW	0	0	0	0	0			0
NNW	0	0	0	0	0			0
TOTAL	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)

WIND DIRECTION	1-3	4-7	8-12	13-18	19-24	>24	TOTAL
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	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	1	0	0	0	1	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	0	0	0	0	0	0	0	0
WSW	0	0	0	0	0	0	0	0
W	0	0	0	0	0	0	0	0
WNW	0	0	0	0	0	0	0	0
NW	0	0	0	0	0	0	0	0
NNW	0	0	0	0	0	0	0	0
TOTAL	0	0	1	0	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 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	0	1	0	0	1
ESE	0	0	1	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	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	0	0	0	0	0
NW	0	0	0	0	0	0	0
NNW	0	0	0	0	0	0	0
TOTAL	0	0	2	1	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 SPEED(MPH)

WIND DIRECTION	1-3	4-7	8-12	13-18	19-24	>24	TOTAL
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

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			3
NNE	0	0	0	0	0			0
NE	0	0	0	0	0			0
ENE	0	0	0	0	0			0
E	0	2	10	0	0			12
ESE	0	0	5	0	0			5
SE	0	0	0	0	0			0
SSE	0	0	0	0	0			0
S	0	0	0	0	0			0
SSW	0	0	0	0	0			0
SW	0	0	0	0	0			0
WSW	0	0	2	0	0			2
W	0	0	1	2	0			3
WNW	0	1	3	0	0			4
NW	0	2	6	0	0			8
NNW	0	0	11	2	0			13
TOTAL	0	5	41	4	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									
N	0	0	0	2	3	0	0	5	
NNE	0	0	0	0	1	0	0	1	
NE	0	0	0	0	0	0	0	0	
ENE	0	0	0	0	0	0	0	0	
E	0	0	0	1	1	0	0	2	
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	0	0	0	0	0	0	0	0	
WSW	1	1	1	0	0	0	0	2	
W	1	2	1	0	0	0	0	4	
WNW	1	4	0	0	0	0	0	5	
NW	0	1	0	0	0	0	0	1	
NNW	0	1	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 SPEED (MPH)							
		1-3	4-7	8-12	13-18	19-24	>24	TOTAL	
WIND DIRECTION									
N	0	0	6	3	0	0	0	9	
NNE	0	0	0	1	0	0	0	1	
NE	0	0	0	0	0	0	0	0	
ENE	0	0	0	0	0	0	0	0	
E	0	2	17	5	0	0	0	24	
ESE	0	0	8	0	0	0	0	8	
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	1	0	0	0	0	1	
SW	0	0	0	0	0	0	0	0	
WSW	1	1	2	0	0	0	0	4	
W	1	3	2	2	0	0	0	8	
WNW	1	5	3	0	0	0	0	9	
NW	0	3	6	0	0	0	0	9	
NNW	0	1	14	4	0	0	0	19	
TOTAL	3	15	59	15	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 SPEED (MPH)

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

TOTAL 16 44 5 0 0 0 65

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: B 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	1	0	0	0	0	1
NNE	0	0	0	0	0	0
NE	0	0	0	0	0	0
ENE	1	0	0	0	0	1
E	1	0	0	0	0	1
ESE	0	0	0	0	0	0
SE	0	0	0	0	0	0
SSE	0	0	0	0	0	0
S	0	1	0	0	0	1
SSW	0	2	0	0	0	2
SW	0	3	2	0	0	5
WSW	0	3	5	0	0	8
W	2	1	1	0	0	4
WNW	2	5	0	0	0	7
NW	2	1	0	0	0	3
NNW	0	3	0	0	0	3
TOTAL	9	19	8	0	0	36

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

HOURS AT EACH WIND SPEED AND DIRECTION = 92100101-92123124 - HOUR RANGE = 01 - 24  
STABILITY CLASS: C DT/DZ  
ELEVATION: SPEED:SP 35P DIRECTION:DI 35P LAPSE:DI1-P

WIND SPEED (MPH)

QWIND

DIRECTION

DIRECTION	1-3	4-7	8-12	13-18	19-24	>24	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
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

```
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)

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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 SPEED(MPH)

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

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

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 = 52100101-92123124 HOUR RANGE = 01 - 24
STABILITY CLASS: F DT/DZ
ELEVATION: SPEED:SP 35P DIRECTION:DI 35P LAPSE:OT1-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	7	
NNE	10	0	0	0	0	0	10	
NE	24	0	0	0	0	0	24	
ENE	37	0	0	0	0	0	37	
E	29	0	0	0	0	0	29	
ESE	37	0	0	0	0	0	37	
SE	28	0	0	0	0	0	28	
SSE	30	0	0	0	0	0	30	
S	20	1	0	0	0	0	21	
SSW	6	2	0	0	0	0	8	
SW	7	0	0	0	0	0	7	
WSW	1	0	0	0	0	0	1	
W	6	0	0	0	0	0	6	
WNW	1	0	0	0	0	0	1	
NW	2	0	0	0	0	0	2	
NNW	2	0	0	0	0	0	2	
TOTAL	247	3	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  
PERIOD OF RECORD = 92100101-92123124 HOUR RANGE = 01 - 24  
STABILITY CLASS: G DT/DZ  
ELEVATION: SPEED:SP 3SP DIRECTION:DI 3SP LAPSE:DT1-P

WIND SPEED (MPH)

WIND DIRECTION	WIND SPEED (MPH)						
	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
WW	2	0	0	0	0	0	2
NNW	1	0	0	0	0	0	1



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

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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 SPEED(MPH)

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

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: A DT/DZ  
ELEVATION: SPEED:SP150P DIRECTION:DI150P LAPSE:DT1-P

WIND SPEED(MPH)

WIND DIRECTION	WIND SPEED(MPH)						
	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  
PERIOD OF RECORD = 92100101-92123124 HOUR RANGE = 01 - 24  
STABILITY CLASS: B DT/DZ  
ELEVATION: SPEED:SP150P DIRECTION:DI150P LAPSE:DT1-P

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

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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	25-30	31-36	37-43	
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	0	95
W	3	39	98	32	6	3	0	0	181
WNW	4	38	84	38	8	0	0	0	172
NW	4	41	38	6	0	0	0	0	89
NNW	5	13	2	0	0	0	0	0	20
TOTAL	105	345	349	97	14	4	0	0	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)

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

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: F DT/DZ  
ELEVATION: SPEED:SP150P DIRECTION:DI150P LAPSE:DT1-P

WIND SPEED(MPH)

WIND DIRECTION	WIND SPEED(MPH)						
	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	7	2	0	0	0	17
SU	12	9	1	0	0	0	22
WSW	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

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:DI150P LAPSE:DT1-P

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

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

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)						TOTAL
	1-3	4-7	8-12	13-18	19-24	>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
```

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:SP500P DIRECTION:DIS00P 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	
NNE	0	0	0	0	0	0	
NE	0	0	0	0	0	0	
ENE	0	0	0	0	0	0	
E	0	0	0	0	0	0	
ESE	0	0	0	0	0	0	
SE	0	0	0	0	0	0	
SSE	0	0	0	0	0	0	
S	0	0	0	0	0	0	
SSW	0	0	0	0	0	0	
SW	0	0	0	0	0	0	
WSW	0	0	0	0	0	0	
W	0	0	0	0	0	0	
WNW	0	0	0	0	0	0	
NNW	0	0	0	0	0	0	
TOTAL	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:D1500P LAPSE:DT2-P

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

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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:SP500P DIRECTION:DI500P LAPSE:DT2-P

		WIND SPEED(MPH)						
WIND DIRECTION	1-3	4-7	8-12	13-18	19-24	>24	TOTAL	
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



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 DIRECTION	WIND SPEED (MPH)								>24 TOTAL
	1-3	4-7	8-12	13-18	19-24				
N	2	3	3	1	0	0	0	0	9
NNE	4	0	2	1	0	0	0	0	7
NE	7	6	7	9	0	0	0	0	29
ENE	5	7	5	2	0	0	0	0	19
E	21	19	10	1	0	0	0	0	51
ESE	10	25	13	1	0	0	0	0	49
SE	7	34	25	3	0	0	0	0	69
SSE	8	16	21	7	1	1	1	1	54
S	2	16	28	15	0	0	0	0	61
SSW	3	9	13	17	1	1	0	0	43
SW	5	7	16	27	9	1	1	1	65
WSW	5	12	16	3	2	0	0	0	38
W	7	16	13	4	0	0	0	0	40
WNW	9	10	8	0	0	0	0	0	27
NW	4	5	4	2	0	0	0	0	15
NNW	3	3	6	0	0	0	0	0	12
TOTAL	102	188	190	93	13	2	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  
PERIOD OF RECORD = 92100101-92123124 HOUR RANGE = 01 - 24  
STABILITY CLASS: F DT/DZ  
ELEVATION: SPEED:SP500P DIRECTION:DIS00P LAPSE:DT2-P

WIND SPEED(MPH)

WIND 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	0	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
	231					

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: 6 DT/DZ  
ELEVATION: SPEED:SP500P DIRECTION:DIS00P 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
NNE	0	0	0	0	0	0
NE	0	0	0	0	0	0
ENE	0	0	0	0	0	0
E	0	1	0	0	0	1
ESE	1	0	0	0	0	1
SE	0	0	0	0	0	0
SSE	0	0	0	2	0	2
S	0	1	0	0	0	1
SSW	0	1	0	0	0	2
SW	0	0	3	5	1	9
WSW	0	0	0	1	0	1
W	0	1	0	0	0	1
WNW	0	0	0	0	0	0
NW	0	0	0	0	0	0
NNW	0	0	0	0	0	0
TOTAL	1	4	4	8	1	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)

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	75
NNE	20	15	20	2	0			0	57
NE	16	42	21	11	0			0	90
ENE	12	32	29	5	0			0	78
E	38	35	26	10	0			0	109
ESE	22	51	45	15	1			0	134
SE	14	62	55	16	10			0	157
SSE	13	33	47	18	6			1	118
S	4	26	48	37	3			0	118
SSW	10	23	32	33	2			1	101
SW	15	18	62	107	37			2	241
WSW	11	36	85	82	15			2	231
W	15	38	101	102	34			11	301
WNW	12	38	90	64	28			11	243
NW	12	13	39	19	2			0	85
NNW	10	16	34	9	1			0	70
TOTAL	237	504	761	539	139			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  
PERIOD OF RECORD = 92101116-92122320 HOUR RANGE = 01 - 24  
STABILITY CLASS: A 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	
0	0	0	0	0	0	0	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

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)

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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 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	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



SITE: BEAVER VALLEY

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

WIND SPEED(MPH)							
DIRECTION							
1-3	4-7	8-12	13-18	19-24	>24	TOTAL	
0	0	0	0	0	0	0	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

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: D 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	0	0	0	0	0		
NNE	0	0	0	0	0		
NE	0	0	0	0	0		
ENE	0	0	0	0	0		
E	0	0	0	0	0		
ESE	0	0	0	0	0		
SE	0	0	0	0	0		
SSE	0	0	0	0	0		
S	0	0	0	0	0		
SSW	0	0	0	0	0		
SW	0	0	0	0	0		
WSW	0	1	0	0	0		
W	0	1	5	1	0		
WNW	0	0	0	0	0		
NW	0	0	0	0	0		
NNW	0	0	0	0	0		
TOTAL	0	2	7	1	0		
						PERIODS OF CALM(HOURS):	
						VARIABLE DIRECTION	
						HOURS OF MISSING DATA:	

SITE: BEAVER VALLEY

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

WIND SPEED (MPH)

WIND DIRECTION	WIND SPEED (MPH)							TOTAL
	1-3	4-7	8-12	13-18	19-24	>24	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	

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 = F D1/D2  
STABILITY CLASS: SPEED:SP150P DIRECTION:D1150P LAPSE:D11-P  
ELEVATION:

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	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	0
WSW	0	0	0	0	0	0	0	0
W	1	0	0	0	0	0	0	0
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

SITE: BEAVER VALLEY

HOURS AT EACH WIND SPEED AND DIRECTION  
PERIOD OF RECORD = 92101116-92122320 HOUR RANGE = 01 - 24  
STABILITY CLASS: 6 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	TOTAL	
0	0	0	0	0	0	0	N
1	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
2	0	0	0	0	0	0	SW
0	0	0	0	0	0	0	WSW
1	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

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)

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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)						
	1-3	4-7	8-12	13-18	19-24	>24	TOTAL
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  
 PERIOD OF RECORD = 92093024-92112520 HOUR RANGE = 01 - 24  
 STABILITY CLASS: 0 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	
0	0	0	0	0	0	0	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

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

SITE: BEAVER VALLEY

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

WIND SPEED (MPH)

GNIP

DIRECTION

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



SITE: BEAVER VALLEY

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

WIND SPEED (MPH)		WIND DIRECTION						
		1-3	4-7	8-12	13-18	19-24	>24 TOTAL	TOTAL
N	0	0	0	0	0	0	0	0
NNE	0	0	0	3	0	0	0	3
NE	0	0	0	0	0	0	0	0
ENE	0	0	0	2	1	0	0	3
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	1	1	0	2	2
S	0	0	0	0	0	0	0	0
SSW	0	0	0	0	0	0	0	0
SW	0	0	0	0	0	0	0	0
WSW	0	0	0	0	0	0	0	0
W	0	0	0	0	0	0	0	0
WNW	0	0	0	0	0	0	0	0
NW	0	0	0	0	0	0	0	0
NNW	0	0	0	0	0	0	0	0
TOTAL	0	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						0
VARIABLE DIRECTION	0						0
HOURS OF MISSING DATA:	0						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 =  
STABILITY CLASS: E DT/DZ  
ELEVATION: SPEED:SP500P DIRECTION:D1500P LAPSE:DT2-P

WIND SPEED (MPH)									
-----									
WIND DIRECTION	WIND SPEED (MPH)								
	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

## SITE: BEAVER VALLEY

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

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WIND DIRECTION	WIND SPEED(MPH)							TOTAL
	1-3	4-7	8-12	13-18	19-24	>24		
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	3	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  
PERIOD OF RECORD = 92093024-92112520 HOUR RANGE = 01 - 24  
STABILITY CLASS: 6 DT/DZ  
ELEVATION: SPEED:SP500P DIRECTION:D1500P 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				
NNE	0	0	0	0	0				
NE	0	0	0	0	0				
ENE	0	0	0	0	0				
E	0	1	0	0	0				
ESE	1	0	0	0	0				
SE	0	0	0	0	0				
SSE	0	0	0	0	0				
S	0	0	0	0	0				
SSW	0	0	0	0	0				
SW	0	0	1	0	0				
WSW	0	0	0	0	0				
W	0	0	0	0	0				
WNW	0	0	0	0	0				
NW	0	0	0	0	0				
NNW	0	0	0	0	0				
TOTAL	1	1	1	0	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)

8 of 8

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

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