

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

Semi-Annual  
Radioactive Effluent Release Report  
For The 6-Month Period:  
July 1, 1989 thru December 31, 1989

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February 23, 1990

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

Reference: 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 1989

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. Note that shared radwaste systems exist for gaseous elevated releases and for liquid releases. The report format is summarized as follows:

1. Supplemental Information Page
2. Table 1A: Gaseous Effluents - Summation of All Releases
3. Table 1B: Gaseous Effluents - Elevated Releases
4. Table 1C1: Gaseous Effluents - Ground Level Releases (Unit 1)
5. Table 1C2: Gaseous Effluents - Ground Level Releases (Unit 2)
6. Table 2A: Liquid Effluents - Summation of All Releases
7. Table 2B: Liquid Effluents
8. Table 3: Solid Waste and Irradiated Fuel Shipments
9. Table 4: Lower Limits of Detectability
10. Table 5A: Assessment of Radiation Doses (Unit 1)
11. Table 5B: Assessment of Radiation Doses (Unit 2)
12. Table 6: Technical Specification Effluent Monitoring  
Instrumentation Channels Not Returned to Operable  
Status Within 30 Days
13. Table 7: 40 CFR 190 Environmental Doses
14. Table 8: Technical Specification Surveillance Deficiencies
15. Table 9: Unit 1 Offsite Dose Calculations Manual changes  
(Description)

IEAS  
1/1

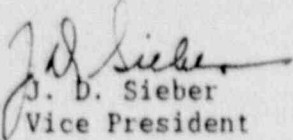
Beaver Valley Power Station, Unit Nos. 1 & 2  
Docket NO. 50-334, License NO. DPR-66  
Docket No. 50-412, License No. NPF-73  
Semi-Annual Radioactive Effluent Release Report  
for the Second Six Months of 1989  
Page 2

16. Table 10: Unit 2 Offsite Dose Calculations Manual changes  
(Description)
17. Attachment 1: Joint Frequency Distribution (JFD) Tables

There was 1 abnormal release (1 liquid and 0 gaseous) during this report period. The release was determined to be within the Technical Specification Limits and no reporting was required per 10 CFR 50.72, 10 CFR 50.73, 10 CFR 20.403 and 10 CFR 20.405. This release involved 225 gallons of water with a total activity (including H-3) of  $2.97E-2$  Curies. Please note that H-3 represented 99% of the total activity.

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

Very truly yours,

  
J. D. Sieber  
Vice President  
Nuclear Group

ATL/cat

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# BEAVER VALLEY - UNITS 1&2

2nd Half - 1989

## SEMI-ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

### SUPPLEMENTAL INFORMATION PAGE

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

LICENSER: 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 E, 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:                     | 60             | 28             |
| 2. Total time period for batch releases:         | 23150 minutes  | 12247 minutes  |
| 3. Maximum time period for a batch release:      | 1322 minutes   | 1300 minutes   |
| 4. Average time period for batch releases:       | 386 minutes    | 437 minutes    |
| 5. Minimum time period for a batch release:      | 45 minutes     | 70 minutes     |
| 6. Average river flow during periods of release: | 23200 cuft/sec | 28600 cuft/sec |

##### b. Gaseous

##### 3rd Quarter

##### 4th Quarter

- |                                             |               |               |
|---------------------------------------------|---------------|---------------|
| 1. Number of batch releases:                | 28            | 13            |
| 2. Total time period for batch releases:    | 26404 minutes | 10687 minutes |
| 3. Maximum time period for a batch release: | 7215 minutes  | 5760 minutes  |
| 4. Average time period for batch releases:  | 943 minutes   | 822 minutes   |
| 5. Minimum time period for a batch release: | 2 minutes     | 25 minutes    |

#### 6. Abnormal Releases

##### a. Liquid

##### 3rd Quarter

##### 4th Quarter

- |                             |                 |                 |
|-----------------------------|-----------------|-----------------|
| 1. Number of releases:      | 1               | NONE            |
| 2. Total activity released: | 2.97E-02 Curies | 0.00E+00 Curies |

##### b. Gaseous

##### 3rd Quarter

##### 4th Quarter

- |                             |                 |                 |
|-----------------------------|-----------------|-----------------|
| 1. Number of releases:      | NONE            | NONE            |
| 2. Total activity released: | 0.00E+00 Curies | 0.00E+00 Curies |



BEAVER VALLEY - UNITS 1&2

TABLE 1A

2nd Half - 1989

SEMI-ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

GASEOUS EFFLUENTS - SUMMATION OF ALL RELEASES

|                                             | Unit    | 3rd<br>Quarter | 4th<br>Quarter | Est. total<br>Error, % |
|---------------------------------------------|---------|----------------|----------------|------------------------|
| A. Fission & Activation Gases               |         |                |                |                        |
| 1. Total release                            | Ci      | 1.54E+02       | 5.13E+00       | 2.65E+01               |
| 2. Average release rate for period          | uCi/sec | 1.95E+01       | 6.51E-01       |                        |
| 3. Percent of technical specification limit | %       | N/A            | N/A            |                        |
| B. Iodines                                  |         |                |                |                        |
| 1. Total iodine - 131                       | Ci      | 6.26E-04       | 9.92E-05       | 2.83E+01               |
| 2. Average release rate for period          | uCi/sec | 7.95E-05       | 1.26E-05       |                        |
| 3. Percent of technical specification limit | %       | N/A            | N/A            |                        |
| C. Particulates                             |         |                |                |                        |
| 1. Particulates with half-lives > 8 days    | Ci      | 6.87E-04       | 3.78E-03       | 3.00E+01               |
| 2. Average release rate for period          | uCi/sec | 1.13E-04       | 4.79E-04       |                        |
| 3. Percent of technical specification limit | %       | N/A            | N/A            |                        |
| 4. Gross alpha radioactivity                | Ci      | 1.36E-06       | 1.22E-06       |                        |
| D. Tritium                                  |         |                |                |                        |
| 1. Total release                            | Ci      | 1.92E+01       | 6.74E+00       | 3.29E+01               |
| 2. Average release rate for period          | uCi/sec | 2.44E+00       | 8.55E-01       |                        |
| 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).

## BEAVER VALLEY - UNITS 1&amp;2

TABLE 1B

2nd Half - 1989

## SEMI-ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

## GASEOUS 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      | 2.33E-03   | LLD      |
| krypton-85        | Ci | LLD             | LLD      | 4.37E-01   | 1.63E-02 |
| krypton-85m       | Ci | LLD             | LLD      | 6.18E-06   | LLD      |
| krypton-87        | Ci | LLD             | LLD      | LLD        | LLD      |
| krypton-88        | Ci | LLD             | LLD      | LLD        | LLD      |
| xenon-131m        | Ci | LLD             | LLD      | 1.52E-01   | 2.87E-03 |
| xenon-133         | Ci | 1.96E+00        | LLD      | 8.60E+00   | 4.90E-03 |
| xenon-133m        | Ci | LLD             | LLD      | 6.11E-02   | LLD      |
| xenon-135         | Ci | 2.34E-01        | LLD      | 2.59E-03   | LLD      |
| xenon-135m        | Ci | LLD             | LLD      | LLD        | LLD      |
| xenon-138         | Ci | LLD             | LLD      | LLD        | LLD      |
| unidentified      | Ci | NONE            | NONE     | NONE       | NONE     |
| Total for period  | Ci | 2.19E+00        | 0.00E+00 | 9.26E+00   | 2.41E-02 |
| 2. Iodines        |    |                 |          |            |          |
| iodine-131        | Ci | 1.31E-05        | 4.33E-07 | 1.71E-08   | LLD      |
| iodine-133        | Ci | 2.55E-07        | LLD      | LLD        | LLD      |
| iodine-135        | Ci | LLD             | LLD      | LLD        | LLD      |
| Total for period  | Ci | 1.34E-05        | 4.33E-07 | 1.71E-08   | 0.00E+00 |
| 3. Particulates   |    |                 |          |            |          |
| manganese-54      | Ci | LLD             | LLD      | LLD        | LLD      |
| iron-59           | Ci | LLD             | LLD      | LLD        | LLD      |
| cobalt-58         | Ci | LLD             | LLD      | 1.60E-09   | LLD      |
| cobalt-60         | Ci | 3.92E-07        | 3.89E-06 | LLD        | LLD      |
| zinc-65           | Ci | LLD             | LLD      | LLD        | LLD      |
| strontium-89      | Ci | LLD             | LLD      | LLD        | LLD      |
| strontium-90      | Ci | LLD             | LLD      | LLD        | LLD      |
| molybdenum-99     | Ci | LLD             | LLD      | LLD        | LLD      |
| cesium-134        | Ci | LLD             | LLD      | LLD        | LLD      |
| cesium-137        | Ci | LLD             | LLD      | 3.60E-04   | LLD      |
| cerium-141        | Ci | LLD             | LLD      | LLD        | LLD      |
| cerium-144        | Ci | LLD             | LLD      | LLD        | LLD      |
| unidentified      | Ci | NONE            | NONE     | NONE       | NONE     |
| Total for period  | Ci | 3.92E-07        | 3.89E-06 | 3.60E-04   | 0.00E+00 |

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

BEAVER VALLEY - UNIT 1

TABLE 1C-1

2nd Half - 1989

SEMI-ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

GASEOUS EFFLUENTS - GROUND-LEVEL RELEASES

|                   |      |                | CONTINUOUS MODE |                | BATCH MODE     |  |
|-------------------|------|----------------|-----------------|----------------|----------------|--|
| =====             |      |                |                 |                |                |  |
| Nuclides released | Unit | 3rd<br>Quarter | 4th<br>Quarter  | 3rd<br>Quarter | 4th<br>Quarter |  |
| =====             |      |                |                 |                |                |  |
| 1. Fission gases  |      |                |                 |                |                |  |
| =====             |      |                |                 |                |                |  |
| krypton-85        | Ci   | 3.41E+00       | 7.63E-01        | LLD            | 4.30E-11       |  |
| krypton-85a       | Ci   | LLD            | LLD             | LLD            | LLD            |  |
| krypton-87        | Ci   | LLD            | LLD             | LLD            | LLD            |  |
| krypton-88        | Ci   | LLD            | LLD             | LLD            | LLD            |  |
| xenon-131a        | Ci   | 8.18E+00       | LLD             | LLD            | LLD            |  |
| xenon-133         | Ci   | 1.03E+02       | LLD             | 1.64E+01       | LLD            |  |
| xenon-133a        | Ci   | LLD            | LLD             | 9.78E-02       | LLD            |  |
| xenon-135         | Ci   | LLD            | LLD             | 3.90E-02       | LLD            |  |
| xenon-135a        | Ci   | LLD            | LLD             | 2.68E-05       | LLD            |  |
| xenon-138         | Ci   | LLD            | LLD             | LLD            | LLD            |  |
| unidentified      | Ci   | NONE           | NONE            | NONE           | NONE           |  |
| Total for period  | Ci   | 1.15E+02       | 7.63E-01        | 1.65E+01       | 4.30E-11       |  |
| =====             |      |                |                 |                |                |  |
| 2. Iodines        |      |                |                 |                |                |  |
| =====             |      |                |                 |                |                |  |
| iodine-131        | Ci   | 6.06E-04       | 9.88E-05        | 7.29E-06       | LLD            |  |
| iodine-133        | Ci   | LLD            | LLD             | 2.82E-07       | LLD            |  |
| iodine-135        | Ci   | LLD            | LLD             | LLD            | LLD            |  |
| Total for period  | Ci   | 6.06E-04       | 9.88E-05        | 7.57E-06       | 0.00E+00       |  |
| =====             |      |                |                 |                |                |  |
| 3. Particulates   |      |                |                 |                |                |  |
| =====             |      |                |                 |                |                |  |
| manganese-54      | Ci   | LLD            | LLD             | LLD            | LLD            |  |
| iron-59           | Ci   | LLD            | LLD             | LLD            | LLD            |  |
| cobalt-58         | Ci   | 9.13E-05       | 3.82E-04        | LLD            | LLD            |  |
| cobalt-60         | Ci   | 8.17E-05       | 3.05E-03        | LLD            | LLD            |  |
| zinc-65           | Ci   | LLD            | LLD             | LLD            | LLD            |  |
| strontium-89      | Ci   | LLD            | LLD             | LLD            | LLD            |  |
| strontium-90      | Ci   | LLD            | LLD             | LLD            | LLD            |  |
| molybdenum-99     | Ci   | LLD            | 8.18E-07        | LLD            | LLD            |  |
| technetium-99a    | Ci   | LLD            | 8.01E-07        | LLD            | LLD            |  |
| cesium-134        | Ci   | 1.88E-05       | LLD             | 7.81E-09       | LLD            |  |
| cesium-137        | Ci   | 5.82E-05       | 8.90E-06        | 7.18E-03       | LLD            |  |
| cerium-141        | Ci   | LLD            | LLD             | LLD            | LLD            |  |
| cerium-144        | Ci   | LLD            | LLD             | LLD            | LLD            |  |
| unidentified      | Ci   | NONE           | NONE            | NONE           | NONE           |  |
| Total for period  | Ci   | 2.50E-04       | 3.44E-03        | 7.19E-06       | 0.00E+00       |  |
| =====             |      |                |                 |                |                |  |

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

## BEAVER VALLEY - UNIT 2

TABLE 1C-2

2nd Half - 1989

## 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    |      |                 |             |             |             |
| argon-41            | Ci   | 1.15E-02        | LLD         | LLD         | NR          |
| krypton-85          | Ci   | 1.05E+01        | 4.48E-01    | LLD         | NR          |
| krypton-85a         | Ci   | LLD             | LLD         | LLD         | NR          |
| krypton-87          | Ci   | LLD             | LLD         | LLD         | NR          |
| krypton-88          | Ci   | LLD             | LLD         | LLD         | NR          |
| xenon-131a          | Ci   | LLD             | 1.27E+00    | LLD         | NR          |
| xenon-133           | Ci   | 1.53E-01        | 2.47E+00    | LLD         | NR          |
| xenon-133a          | Ci   | 3.70E-01        | 1.50E-01    | LLD         | NR          |
| xenon-135           | Ci   | LLD             | LLD         | LLD         | NR          |
| xenon-135a          | Ci   | LLD             | LLD         | LLD         | NR          |
| xenon-138           | Ci   | LLD             | LLD         | LLD         | NR          |
| unidentified        | Ci   | NONE            | NONE        | NONE        | NR          |
| Total for period    | Ci   | 1.10E+01        | 4.34E+00    | 0.00E+00    | 0.00E+00    |
| 2. Iodines          |      |                 |             |             |             |
| iodine-131          | Ci   | LLD             | LLD         | LLD         | NR          |
| iodine-133          | Ci   | LLD             | LLD         | LLD         | NR          |
| iodine-135          | Ci   | LLD             | LLD         | LLD         | NR          |
| Total for period    | Ci   | 0.00E+00        | 0.00E+00    | 0.00E+00    | 0.00E+00    |
| 3. Particulates     |      |                 |             |             |             |
| manganese-54        | Ci   | LLD             | LLD         | LLD         | NR          |
| iron-59             | Ci   | LLD             | LLD         | LLD         | NR          |
| cobalt-57           | Ci   | LLD             | 3.55E-07    | LLD         | NR          |
| cobalt-58           | Ci   | 3.69E-05        | LLD         | 3.41E-06    | NR          |
| cobalt-60           | Ci   | 4.41E-05        | LLD         | LLD         | NR          |
| zinc-65             | Ci   | LLD             | LLD         | LLD         | NR          |
| strontium-89        | Ci   | LLD             | 3.98E-07    | LLD         | NR          |
| strontium-90        | Ci   | LLD             | 1.16E-07    | LLD         | NR          |
| zirconium/nickel-95 | Ci   | 1.85E-04        | LLD         | LLD         | NR          |
| molybdenum-99       | Ci   | LLD             | LLD         | LLD         | NR          |
| cesium-134          | Ci   | LLD             | LLD         | LLD         | NR          |
| cesium-137          | Ci   | LLD             | 7.20E-06    | LLD         | NR          |
| barium-139          | Ci   | LLD             | 3.25E-04    | LLD         | NR          |
| cerium-141          | Ci   | LLD             | LLD         | LLD         | NR          |
| cerium-144          | Ci   | LLD             | LLD         | LLD         | NR          |
| unidentified        | Ci   | NONE            | NONE        | NONE        | NR          |
| Total for period    | Ci   | 2.66E-04        | 3.33E-04    | 3.41E-06    | 0.00E+00    |

LLD = Below the lower limit of detectability, in uCi/cc (Table 4).  
 NR = No Releases this period



BEAVER VALLEY - UNITS 1&2

TABLE 2A

2nd Half - 1969

SEMI-ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

LIQUID EFFLUENTS - SUMMATION OF ALL RELEASES

|  | Unit | 3rd<br>Quarter | 4th<br>Quarter | Est. total<br>Error, % |
|--|------|----------------|----------------|------------------------|
|--|------|----------------|----------------|------------------------|

A. Fission & activation products

|                                                 |        |          |          |          |
|-------------------------------------------------|--------|----------|----------|----------|
| 1. Total release (excluding H-3, gases & alpha) | Ci     | 1.09E-01 | 1.65E-01 | 2.60E+01 |
| 2. Average diluted concentration during period  | uCi/ml | 4.34E-08 | 2.16E-07 |          |
| 3. Percent of applicable limit                  | %      | N/A      | N/A      |          |

B. Tritium

|                                                |        |          |          |          |
|------------------------------------------------|--------|----------|----------|----------|
| 1. Total release                               | Ci     | 1.05E+02 | 1.53E+02 | 2.50E+01 |
| 2. Average diluted concentration during period | uCi/ml | 4.18E-05 | 2.01E-04 |          |
| 3. Percent of applicable limit                 | %      | 1.39E+00 | 6.69E+00 |          |

C. Dissolved and entrained gases

|                                                |        |          |          |          |
|------------------------------------------------|--------|----------|----------|----------|
| 1. Total release                               | Ci     | 1.47E-03 | 3.81E-04 | 2.70E+01 |
| 2. Average diluted concentration during period | uCi/ml | 5.85E-10 | 5.00E-10 |          |
| 3. Percent of applicable limit                 | %      | 2.92E-04 | 2.50E-04 |          |

D. Gross alpha radioactivity

|                  |    |     |     |          |
|------------------|----|-----|-----|----------|
| 1. Total release | Ci | LLD | LLD | 2.69E+01 |
|------------------|----|-----|-----|----------|

|                                                 |        |          |          |          |
|-------------------------------------------------|--------|----------|----------|----------|
| E. Volume of waste released (prior to dilution) | liters | 3.56E+06 | 1.62E+06 | 1.12E+01 |
|-------------------------------------------------|--------|----------|----------|----------|

|                                                |        |          |          |          |
|------------------------------------------------|--------|----------|----------|----------|
| F. Volume of dilution water used during period | liters | 2.51E+09 | 7.61E+08 | 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)

## BEAVER VALLEY - UNITS 1&amp;2

TABLE 2B

2nd Half - 1989

## SEMI-ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

## LIQUID EFFLUENTS

|                                    |    | CONTINUOUS MODE |          | BATCH MODE |          |
|------------------------------------|----|-----------------|----------|------------|----------|
|                                    |    | 3rd             | 4th      | 3rd        | 4th      |
| Nuclides released                  |    | Quarter         | Quarter  | Quarter    | Quarter  |
|                                    |    | Unit            |          |            |          |
| 1. Fission and activation products |    |                 |          |            |          |
| beryllium-7                        | Ci | N/A             | N/A      | LLD        | LLD      |
| sodium-24                          | Ci | N/A             | N/A      | LLD        | 1.65E-05 |
| chromium-51                        | Ci | N/A             | N/A      | 2.46E-03   | 3.70E-03 |
| manganese-54                       | Ci | N/A             | N/A      | 7.55E-04   | 2.73E-03 |
| iron-55                            | Ci | N/A             | N/A      | 4.23E-02   | 6.39E-02 |
| iron-59                            | Ci | N/A             | N/A      | 5.48E-04   | 9.80E-04 |
| cobalt-57                          | Ci | N/A             | N/A      | 6.41E-05   | 2.91E-04 |
| cobalt-58                          | Ci | N/A             | N/A      | 2.34E-02   | 2.34E-02 |
| cobalt-60                          | Ci | N/A             | N/A      | 1.27E-02   | 3.50E-02 |
| zinc-65                            | Ci | N/A             | N/A      | LLD        | LLD      |
| strontium-89                       | Ci | N/A             | N/A      | LLD        | LLD      |
| strontium-90                       | Ci | N/A             | N/A      | LLD        | LLD      |
| zirconium/niobium-95               | Ci | N/A             | N/A      | 4.04E-04   | 1.51E-03 |
| niobium-97                         | Ci | N/A             | N/A      | 1.19E-04   | 8.50E-04 |
| molybdenum-99                      | Ci | N/A             | N/A      | LLD        | 3.17E-06 |
| technetium-99m                     | Ci | N/A             | N/A      | LLD        | 3.10E-06 |
| ruthenium-103                      | Ci | N/A             | N/A      | 2.75E-04   | 2.16E-04 |
| silver-110m                        | Ci | N/A             | N/A      | 2.93E-04   | 2.12E-03 |
| antimony-124                       | Ci | N/A             | N/A      | 4.30E-03   | 2.37E-03 |
| antimony-125                       | Ci | N/A             | N/A      | 2.03E-02   | 7.27E-03 |
| iodine-131                         | Ci | N/A             | N/A      | 1.64E-04   | 1.14E-05 |
| iodine-133                         | Ci | N/A             | N/A      | 1.81E-06   | 7.32E-06 |
| cesium-134                         | Ci | N/A             | N/A      | 8.01E-06   | 9.89E-06 |
| cesium-137                         | Ci | N/A             | N/A      | 4.84E-04   | 1.39E-04 |
| barium/lanthanum-140               | Ci | N/A             | N/A      | LLD        | 1.34E-05 |
| 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 | 1.09E-01   | 1.65E-01 |

## 2. Dissolved and entrained gases

|                  |    |          |          |          |          |
|------------------|----|----------|----------|----------|----------|
| xenon-133        | Ci | N/A      | N/A      | 9.95E-04 | 3.17E-04 |
| xenon-133m       | Ci | N/A      | N/A      | LLD      | LLD      |
| xenon-135        | Ci | N/A      | N/A      | 4.72E-04 | 6.36E-05 |
| unidentified     | Ci | N/A      | N/A      | NONE     | NONE     |
| Total for period | Ci | 0.00E+00 | 0.00E+00 | 1.47E-03 | 3.81E-04 |

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

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

BEAVER VALLEY - UNITS 1&2

TABLE 3

2nd Half - 1989

SEMI-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<br>Filter sludges<br>Evap. bottoms | Dry comp. waste<br>Contas. equipment<br>etc. (2) | Irrad. components<br>Control rods<br>etc. | Estimated<br>Total<br>Error |
|------------------|-------------------------------------------------|--------------------------------------------------|-------------------------------------------|-----------------------------|
|------------------|-------------------------------------------------|--------------------------------------------------|-------------------------------------------|-----------------------------|

|                  |                    |                    |                    |                |
|------------------|--------------------|--------------------|--------------------|----------------|
| Container Volume | 2.10E+01 cu. meter | 1.12E+03 cu. meter | 0.00E+00 cu. meter | 0.00E+00 % (1) |
| Total Activity   | 5.76E+02 Curies    | 2.56E+01 Curies    | 0.00E+00 Curies    | 3.00E+01 %     |

2. Estimate of Major Nuclide Composition by Type of Waste (percent)

|               |            |            |            |
|---------------|------------|------------|------------|
| H-3           | 3.35E-01 % | 2.15E+00 % | 0.00E+00 % |
| C-14          | 3.00E-02 % | 5.09E-01 % | 0.00E+00 % |
| P-32          | 1.19E-02 % | 1.30E+00 % | 0.00E+00 % |
| Cl-36         | 0.00E+00 % | 7.20E-07 % | 0.00E+00 % |
| Cr-51         | 3.54E-01 % | 2.69E+00 % | 0.00E+00 % |
| Mn-54         | 9.56E+00 % | 5.43E-01 % | 0.00E+00 % |
| Fe-55         | 1.53E-01 % | 2.36E+01 % | 0.00E+00 % |
| Fe-59         | 9.66E-02 % | 6.83E-02 % | 0.00E+00 % |
| Co-57         | 2.11E-01 % | 1.46E-02 % | 0.00E+00 % |
| Co-58         | 5.57E+01 % | 1.43E+01 % | 0.00E+00 % |
| Co-60         | 1.46E+01 % | 1.34E+01 % | 0.00E+00 % |
| Ni-59         | 2.19E-02 % | 4.96E-01 % | 0.00E+00 % |
| Ni-63         | 2.57E+00 % | 3.53E+01 % | 0.00E+00 % |
| Zn-65         | 3.59E-01 % | 0.00E+00 % | 0.00E+00 % |
| Y-88          | 0.00E+00 % | 1.39E-09 % | 0.00E+00 % |
| Sr-89         | 1.11E-02 % | 1.70E-02 % | 0.00E+00 % |
| Sr-90         | 7.43E-02 % | 2.79E-02 % | 0.00E+00 % |
| Nb-95         | 1.51E-03 % | 6.16E-01 % | 0.00E+00 % |
| Zr-95         | 1.49E-03 % | 3.12E-01 % | 0.00E+00 % |
| Tc-99         | 1.01E-05 % | 1.10E-02 % | 0.00E+00 % |
| Ru-103        | 0.00E+00 % | 1.27E-01 % | 0.00E+00 % |
| Cd-109        | 0.00E+00 % | 3.88E-06 % | 0.00E+00 % |
| Ag-110a       | 1.04E-06 % | 0.00E+00 % | 0.00E+00 % |
| Sn-113        | 0.00E+00 % | 1.55E-09 % | 0.00E+00 % |
| Sb-124        | 2.39E-01 % | 1.69E-02 % | 0.00E+00 % |
| Sb-125        | 3.55E-01 % | 8.86E-01 % | 0.00E+00 % |
| I-129         | 1.16E-05 % | 1.52E-02 % | 0.00E+00 % |
| I-131         | 6.09E-03 % | 0.00E+00 % | 0.00E+00 % |
| Cs-134        | 1.33E-02 % | 9.70E-01 % | 0.00E+00 % |
| Cs-137        | 5.60E-02 % | 2.22E+00 % | 0.00E+00 % |
| Ba-133        | 0.00E+00 % | 2.07E-06 % | 0.00E+00 % |
| Ba-140        | 1.59E-04 % | 7.87E-03 % | 0.00E+00 % |
| Ce-139        | 0.00E+00 % | 2.25E-09 % | 0.00E+00 % |
| Ce-141        | 7.26E-05 % | 1.98E-02 % | 0.00E+00 % |
| Ce-144/Pr-144 | 2.87E-03 % | 3.92E-02 % | 0.00E+00 % |
| Pm-147        | 0.00E+00 % | 7.04E-09 % | 0.00E+00 % |
| Hg-203        | 0.00E+00 % | 4.97E-13 % | 0.00E+00 % |
| Pb-210        | 0.00E+00 % | 1.04E-04 % | 0.00E+00 % |
| Th-230        | 0.00E+00 % | 7.20E-08 % | 0.00E+00 % |
| Pu-238        | 5.08E-05 % | 3.06E-03 % | 0.00E+00 % |
| Pu-239/240    | 2.39E-05 % | 1.62E-03 % | 0.00E+00 % |
| Pu-241        | 3.49E-03 % | 6.83E-02 % | 0.00E+00 % |
| Am-241        | 1.43E-05 % | 1.21E-03 % | 0.00E+00 % |
| Cm-242        | 1.52E-04 % | 2.73E-03 % | 0.00E+00 % |
| Cm-243/244    | 3.61E-05 % | 1.99E-03 % | 0.00E+00 % |

3. Number of Shipments

|                           |                   |   |    |   |
|---------------------------|-------------------|---|----|---|
| Type of Container Used    | LSA               | 2 | 20 | 0 |
|                           | Type A            | 2 | 0  | 0 |
|                           | Type B            | 0 | 0  | 0 |
|                           | Large Quantity    | 0 | 0  | 0 |
| Solidification Agent Used | Cement            | 2 | 0  | 0 |
|                           | Urea Formaldehyde | 0 | 0  | 0 |
|                           | None              | 2 | 20 | 0 |
| Mode of Transport         | Truck             | 4 | 20 | 0 |
|                           | Rail              | 0 | 0  | 0 |
| Final Destination         | Barnwell, SC      | 4 | 0  | 0 |
|                           | Oak Ridge, TN (2) | 0 | 20 | 0 |
| Waste Class per 10 CFR 61 | Class A           | 2 | 20 | 0 |
|                           | Class B           | 2 | 0  | 0 |
|                           | Class C           | 0 | 0  | 0 |
|                           | > Class C         | 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) 20 shipments of DAW were shipped to QUADREX for volume reduction. Therefore, the volume of DAW listed is the volume shipped. The total volume of DAW buried for this report period was 1.72E+2 cu. meters.



BEAVER VALLEY - UNITS 1&2

TABLE 4

2nd Half - 1989

SEMI-ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

LOWER LIMITS OF DETECTABILITY (LLD)

| *<br>NUCLIDE | *<br>uCi/cc              | *<br>uCi/ml              | *<br>uCi/cc                                   |
|--------------|--------------------------|--------------------------|-----------------------------------------------|
|              | GAS                      | LIQUID                   | FILTER PAPER / CHARCOAL                       |
|              | GRAB SAMPLE<br>(1000 cc) | GRAB SAMPLE<br>(1000 ml) | CONTINUOUS EFFLUENT SAMPLE<br>(2.85E+8 cc) ** |
| H-3          | 1.00E-06                 | 1.00E-06                 | -----                                         |
| Na-24        | 1.05E-07                 | 2.66E-08                 | 1.95E-13                                      |
| Ar-41        | 1.18E-07                 | 2.55E-08                 | -----                                         |
| Cr-51        | 7.34E-07                 | 1.75E-07                 | 1.11E-12                                      |
| Mn-54        | 4.72E-08                 | 2.92E-08                 | 1.60E-13                                      |
| Fe-55        | -----                    | * 1.00E-06               | -----                                         |
| Fe-59        | 1.05E-07                 | 2.97E-08                 | 2.62E-13                                      |
| Co-57        | 6.06E-08                 | 1.14E-08                 | 8.57E-14                                      |
| Co-58        | 1.31E-07                 | 2.02E-08                 | 2.20E-13                                      |
| Co-60        | 1.25E-07                 | 4.63E-08                 | 1.58E-13                                      |
| Zn-65        | 1.46E-07                 | 3.84E-08                 | 2.62E-13                                      |
| Kr-85        | 3.02E-5 / *1.00E-10      | 8.75E-06                 | -----                                         |
| Kr-85m       | 7.23E-08                 | 1.92E-08                 | -----                                         |
| Kr-87        | 1.79E-07                 | 3.16E-08                 | -----                                         |
| Kr-86        | 2.43E-07                 | 6.32E-08                 | -----                                         |
| Sr-89        | -----                    | * 5.00E-08               | * 1.00E-13                                    |
| Si-90        | -----                    | * 5.00E-08               | * 1.00E-14                                    |
| Sr-92        | 6.37E-08                 | 3.21E-08                 | 4.14E-13                                      |
| Nb-95        | 7.63E-08                 | 2.46E-08                 | 1.47E-13                                      |
| Nb-97        | 6.85E-08                 | 1.94E-08                 | 1.81E-13                                      |
| Zr-95        | 1.29E-07                 | 3.93E-08                 | 2.62E-13                                      |
| Mo-99        | 6.52E-08                 | 1.77E-08                 | 9.16E-14                                      |
| Tc-99m       | 6.36E-08                 | 1.72E-08                 | 8.93E-14                                      |
| Ag-110m      | 6.68E-08                 | 2.01E-08                 | 1.88E-13                                      |
| Sb-124       | 7.37E-08                 | 2.53E-08                 | 2.20E-13                                      |
| Sb-125       | 2.05E-07                 | 6.42E-08                 | 3.23E-13                                      |
| I-131        | 9.63E-08                 | 1.87E-08                 | 1.75E-13                                      |
| I-133        | 9.89E-08                 | 2.19E-08                 | 1.86E-13                                      |
| I-135        | 4.10E-07                 | 1.22E-07                 | 6.67E-13                                      |
| Xe-131m      | 2.93E-06                 | 6.16E-07                 | -----                                         |
| Xe-133       | 1.64E-07                 | 4.20E-08                 | -----                                         |
| Xe-133m      | 5.99E-07                 | 1.40E-07                 | -----                                         |
| Xe-135       | 8.36E-08                 | 1.70E-08                 | -----                                         |
| Xe-135m      | 1.05E-07                 | 2.24E-08                 | -----                                         |
| Xe-138       | 1.82E-07                 | 4.13E-08                 | -----                                         |
| Cs-134       | 9.80E-08                 | 2.01E-08                 | 2.21E-13                                      |
| Cs-137       | 1.21E-07                 | 3.17E-08                 | 2.35E-13                                      |
| Ba-139       | 2.84E-07                 | 7.51E-08                 | 4.07E-13                                      |
| Ba-140       | 3.46E-07                 | 6.26E-08                 | 5.79E-13                                      |
| La-140       | 2.11E-07                 | 2.27E-08                 | 2.34E-13                                      |
| Ce-141       | 1.09E-07                 | 2.66E-08                 | 1.64E-13                                      |
| Ce-144       | 5.11E-07                 | 1.15E-07                 | 6.39E-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).



# BEAVER VALLEY - UNIT 1

Table 5A

2nd Half - 1989

## SEMI-ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

### ASSESSMENT OF RADIATION DOSES

| UNIT 1           |                 | 1st Quarter |                      | 2nd Quarter |                      | 3rd Quarter |                      | 4th Quarter |                      | Year     |                      |
|------------------|-----------------|-------------|----------------------|-------------|----------------------|-------------|----------------------|-------------|----------------------|----------|----------------------|
| LIQUID EFFLUENTS |                 |             |                      |             |                      |             |                      |             |                      |          |                      |
| Batch Releases   |                 | 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 |
| (1)              | BONE DOSE       | 1.40E-03    | 0.0280               | 1.64E-03    | 0.0328               | 7.37E-03    | 0.1474               | 4.92E-03    | 0.0964               | 1.53E-02 | 0.1533               |
|                  | LIVER DOSE      | 3.57E-03    | 0.0714               | 4.77E-03    | 0.0954               | 1.09E-02    | 0.2180               | 8.17E-03    | 0.1634               | 2.74E-02 | 0.2741               |
|                  | TOTAL BODY DOSE | 2.94E-03    | 0.1960               | 4.12E-03    | 0.2747               | 7.51E-03    | 0.5007               | 5.83E-03    | 0.3887               | 2.04E-02 | 0.6800               |
|                  | THYROID DOSE    | 1.64E-03    | 0.0328               | 1.43E-03    | 0.0286               | 1.69E-03    | 0.0338               | 1.19E-03    | 0.0238               | 5.95E-03 | 0.0595               |
|                  | KIDNEY DOSE     | 2.23E-03    | 0.0446               | 2.24E-03    | 0.0448               | 4.12E-03    | 0.0824               | 2.92E-03    | 0.0584               | 1.15E-02 | 0.1151               |
|                  | LUNG DOSE       | 1.84E-03    | 0.0368               | 1.77E-03    | 0.0354               | 2.32E-03    | 0.0464               | 2.28E-03    | 0.0456               | 8.21E-03 | 0.0821               |
|                  | CI-LLI DOSE     | 3.92E-03    | 0.0784               | 1.17E-01    | 2.3400               | 2.35E-02    | 0.4700               | 1.22E-01    | 2.4400               | 2.66E-01 | 2.6642               |

| UNIT 1                      |                 | 1st Quarter |                      | 2nd Quarter |                      | 3rd Quarter |                      | 4th Quarter |                      | Year     |                      |
|-----------------------------|-----------------|-------------|----------------------|-------------|----------------------|-------------|----------------------|-------------|----------------------|----------|----------------------|
| GASEOUS EFFLUENTS           |                 |             |                      |             |                      |             |                      |             |                      |          |                      |
| Batch & Continuous Releases |                 | 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 |
| (2)                         | BETA AIR DOSE   | 4.37E-03    | 0.0437               | 2.52E-02    | 0.2520               | 4.21E-01    | 4.2100               | 2.76E-02    | 0.2760               | 4.78E-01 | 2.3909               |
| (2)                         | GAMMA AIR DOSE  | 1.48E-03    | 0.0296               | 9.97E-03    | 0.1994               | 1.40E-01    | 2.8000               | 9.27E-03    | 0.1854               | 1.61E-01 | 1.6072               |
| (3)                         | BONE DOSE       | 2.45E-05    | 0.0003               | 1.22E-03    | 0.0163               | 2.23E-04    | 0.0030               | 3.60E-02    | 0.4900               | 3.75E-02 | 0.2498               |
|                             | LIVER DOSE      | 4.63E-02    | 0.6173               | 2.14E-02    | 0.2853               | 3.98E-02    | 0.5307               | 6.99E-02    | 0.9320               | 1.77E-01 | 1.1827               |
|                             | TOTAL BODY DOSE | 4.63E-02    | 0.6173               | 2.10E-02    | 0.2800               | 3.96E-02    | 0.5280               | 7.11E-02    | 0.9480               | 1.78E-01 | 1.1867               |
|                             | THYROID DOSE    | 5.01E-02    | 0.6680               | 2.50E-02    | 0.3333               | 4.09E-02    | 0.5453               | 8.02E-02    | 1.0693               | 1.96E-01 | 1.3080               |
|                             | KIDNEY DOSE     | 4.63E-02    | 0.6173               | 2.10E-02    | 0.2800               | 3.97E-02    | 0.5293               | 6.91E-02    | 0.9213               | 1.76E-01 | 1.1740               |
|                             | LUNG DOSE       | 4.63E-02    | 0.6173               | 2.14E-02    | 0.2853               | 3.97E-02    | 0.5293               | 8.95E-02    | 1.1933               | 1.97E-01 | 1.3127               |
|                             | GI-LLI DOSE     | 4.63E-02    | 0.6173               | 2.10E-02    | 0.2800               | 3.96E-02    | 0.5280               | 7.29E-02    | 0.9720               | 1.80E-01 | 1.1987               |

(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).

BEAVER VALLEY - UNIT 2

Table 5B

2nd Half - 1989

SEMI-ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

ASSESSMENT OF RADIATION DOSES

| UNIT 2                           |                 | 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<br>R<br>G<br>A<br>N<br><br>(1) | BONE DOSE       | 1.40E-03    | 0.0280          | 1.64E-03    | 0.0328          | 7.37E-03    | 0.1474          | 4.92E-03    | 0.0984          | 1.53E-02 | 0.1533          |
|                                  | LIVER DOSE      | 3.57E-03    | 0.0714          | 4.77E-03    | 0.0954          | 1.09E-02    | 0.2180          | 8.17E-03    | 0.1634          | 2.74E-02 | 0.2741          |
|                                  | TOTAL BODY DOSE | 2.94E-03    | 0.1960          | 4.12E-03    | 0.2747          | 7.51E-03    | 0.5007          | 5.83E-03    | 0.3887          | 2.04E-02 | 0.6800          |
|                                  | THYROID DOSE    | 1.64E-03    | 0.0328          | 1.43E-03    | 0.0286          | 1.69E-03    | 0.0338          | 1.19E-03    | 0.0238          | 5.95E-03 | 0.0595          |
|                                  | KIDNEY DOSE     | 2.23E-03    | 0.0446          | 2.24E-03    | 0.0448          | 4.12E-03    | 0.0824          | 2.92E-03    | 0.0584          | 1.15E-02 | 0.1151          |
|                                  | LUNG DOSE       | 1.84E-03    | 0.0368          | 1.77E-03    | 0.0354          | 2.32E-03    | 0.0464          | 2.28E-03    | 0.0456          | 8.21E-03 | 0.0821          |
|                                  | GI-LLI DOSE     | 3.92E-03    | 0.0784          | 1.17E-01    | 2.3400          | 2.35E-02    | 0.4700          | 1.22E-01    | 2.4400          | 2.66E-01 | 2.6642          |

| UNIT 2                      |                 | 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   | 6.94E-02    | 0.6940          | 2.13E-02    | 0.2130          | 1.39E-07    | 0.0000          | 1.64E-01    | 1.6400          | 2.55E-01 | 1.2735          |
| (2)                         | GAMMA AIR DOSE  | 3.02E-03    | 0.0604          | 1.06E-03    | 0.0212          | 2.39E-05    | 0.0005          | 5.36E-03    | 0.1072          | 9.46E-03 | 0.0946          |
| O<br>R<br>G<br>A<br>N       | BONE DOSE       | 1.31E-03    | 0.0175          | 2.09E-03    | 0.0279          | 2.47E-04    | 0.0033          | 1.44E-04    | 0.0019          | 3.79E-03 | 0.0253          |
|                             | LIVER DOSE      | 4.34E-03    | 0.0579          | 1.26E-02    | 0.1680          | 3.53E-02    | 0.4707          | 2.12E-02    | 0.2827          | 7.34E-02 | 0.4896          |
|                             | TOTAL BODY DOSE | 4.64E-03    | 0.0619          | 1.27E-02    | 0.1693          | 3.52E-02    | 0.4693          | 2.11E-02    | 0.2813          | 7.36E-02 | 0.4909          |
|                             | THYROID DOSE    | 4.24E-03    | 0.0565          | 1.29E-02    | 0.1720          | 3.52E-02    | 0.4693          | 2.11E-02    | 0.2813          | 7.34E-02 | 0.4896          |
|                             | KIDNEY DOSE     | 4.19E-03    | 0.0559          | 1.25E-02    | 0.1667          | 3.53E-02    | 0.4707          | 2.11E-02    | 0.2813          | 7.31E-02 | 0.4873          |
|                             | LUNG DOSE       | 8.68E-03    | 0.1157          | 1.46E-02    | 0.1947          | 3.54E-02    | 0.4720          | 2.11E-02    | 0.2813          | 7.98E-02 | 0.5319          |
|                             | GI-LLI DOSE     | 5.16E-03    | 0.0688          | 1.28E-02    | 0.1707          | 3.53E-02    | 0.4707          | 2.11E-02    | 0.2813          | 7.44E-02 | 0.4957          |

(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).

BEAVER VALLEY - UNITS 1&2

TABLE 6

2nd Half - 1989

SEMI-ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

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

(Monitor Item No. 29) - Unit 2 Process Flow-Rate Monitor for the Condensate Polishing Building Vent Monitor

This flow-rate monitor has been inoperable from March 8, 1988 through the end of the report period due to equipment failure of the velocity probe. The 30 day criteria was exceeded as a result of the lag time in obtaining a replacement probe from the vendor. Maintenance Work Request (MWR) No. 887195 was originally prepared to correct this problem.

Further review of this item revealed that the velocity probe should be relocated to another point in the ventilation pathway. This will be a very costly design change, with no apparent benefit to the sampling and analysis program. BVPS is currently considering submittal of a Technical Specification Change Request to remove the requirement for this process flow rate monitor. Justification for the request will center around the source term to the ventilation pathway served by this radiation monitor. For example, the building serviced by this ventilation pathway does not contain any normally contaminated areas.

As required by LCO 3.3.3.10 (Table 3.3-13, Action Statement No. 28) flow rates were estimated every four hours during this report period.

(FR-VS-112) - Unit 1 System Effluent Flow-Rate Measuring Device for the SLCRS Vent Monitor

This flow-rate monitor was inoperable from July 7, 1988 through the end of the report period due to equipment failure. The 30 day criteria was exceeded due to determinations that the recorder was unrepairable. DCP 1187 was prepared for replacement of the recorder. The recorder was replaced and the flowrate measuring device was returned to operable status on January 31, 1990.

As required by LCO 3.3.3.10 (Table 3.3-13, Action Statement No. 28) flow rates were estimated every four hours during this report period.

(RM-LW-104) - Unit 1 Liquid Radwaste Effluent Line Radiation Monitor

This radiation monitor was determined to be inoperable on July 19, 1989 due to failure of a relay socket. Due to the unavailability of replacement equipment and the need to update plant drawings to "as-built" conditions, the monitor inoperability exceeded the 30 day criteria. After completion of these two work evolutions, the monitor was returned to operable status on August 27, 1989.

As permitted by LCO 3.3.3.9 (Table 3.3-12, Action Statement No. 23), liquid discharges can occur during the period of inoperability as long as the applicable requirements are met. All discharges via this monitor (during this period of inoperability) met the following criteria:

1. Two independent samples of the tank contents were sampled and analyzed in accordance with Table 4.11-1.
2. Two technically qualified members of the BVPS staff independently verified the release rate calculations and discharge valving.



BEAVER VALLEY - UNITS 1&2

TABLE 7

2nd Half - 1989

SEMI-ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

40 CFR 190 ENVIRONMENTAL DOSES

Total Dose from all facility releases for the 12-month period  
January 1, 1989 thru December 31, 1989

| ORGAN      | DOSE (mrem) | % OF TECH. SPEC. LIMIT |
|------------|-------------|------------------------|
| BONE       | 7.19E-02    | 0.29%                  |
| LIVER      | 3.06E-01    | 1.22%                  |
| TOTAL BODY | 4.63E-01    | 1.85%                  |
| THYROID    | 2.82E-01    | 0.38%                  |
| KIDNEY     | 2.72E-01    | 1.09%                  |
| LUNG       | 2.93E-01    | 1.17%                  |
| GI-LLI     | 7.87E-01    | 3.15%                  |

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  $\leq 25$  mrem to the total body or any organ (except the thyroid, which is limited to  $\leq 75$  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.



BEAVER VALLEY - UNITS 1&2

TABLE 8

2nd Half - 1989

SEMI-ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

TECHNICAL SPECIFICATION SURVEILLANCE DEFICIENCIES

As specified by LCO 3.3.3.10 (Table 3.3-13, Action Statement No. 27), the contents of a tank may be released to the environment (when the radiation monitor is inoperable) provided that prior to initiating the release, at least two independent samples are collected and analyzed, as well as two staff members verify the release rate calculations and discharge valve line-up, or initiate continuous monitoring with a comparable alternate monitoring channel. Contrary to this, on August 30, 1989 (1140 hrs to 1900 hrs) RWDA-G No. 1019 was discharged to the environment without meeting all of these requirements. This occurred because the applicable radiation monitor (RM-GW-108) was not known to be inoperable.

There were no safety implications to the health and safety of the general public as a result of the failure to meet the requirements, because during the discharge the effluent path was monitored and continuous samples were collected by an alternate radiation monitor (RM-GW-109). It should be noted that RM-GW-109 is not considered a Technical Specification comparable alternate monitoring channel only because this monitor does not automatically isolate the discharge upon an upper alarm indication. A review of this monitor's history file showed no alarm indications and no abnormal increases during the discharge period. This is documented in Incident Report No. 1-89-72.

BEAVER VALLEY - UNIT 1

TABLE 9

2nd Half - 1989

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

BEAVER VALLEY - UNIT 2

TABLE 10

2nd Half - 1989

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 - 1989

SEMI-ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

JOINT FREQUENCY DISTRIBUTION TABLES

Table 1  
Beaver Valley Meteorological Data Recovery  
Third Quarter 1989

|                            | <u>Continuous<br/>Release</u> | <u>Batch<br/>Release</u> | <u>Comments</u>                                                     |
|----------------------------|-------------------------------|--------------------------|---------------------------------------------------------------------|
| Joint delta-T (150ft-35ft) | 99.4%                         | 100.0%                   | There were 6 hours of<br>delta -T data lost due to<br>power outage. |
| Joint delta-T (500ft-35ft) | 99.6%                         | 100.0%                   | There were 8 hours of<br>delta-T data lost due to<br>power outage.  |

Beaver Valley  
Joint Frequency Distribution Tables  
for  
Continuous Releases

Delta T (150ft-35ft) and 35-Ft Wind  
and  
Delta T (500ft-35ft) and 500-Ft Wind

Third Quarter 1989



PROGRAM: JFD VERSION: PC-1.0

BEAVER VALLEY JFD - GROUND LEVEL CONTINUOUS RELEASE

SITE IDENTIFIER: DLBV2

DATA PERIOD EXAMINED: 7/ 1/89 - 9/30/89

\*\*\* 3RD QTR 1989 \*\*\*

STABILITY CLASS A  
STABILITY BASED ON: DELTA T BETWEEN 150.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: .75 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

| SPEED<br>(MPH) | N  | NNE | NE | ENE | E  | ESE | SE | SSE | S  | SSW | SW | WSW | W  | WNW | NW | NNW | TOTAL |
|----------------|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|-------|
| CALM           |    |     |    |     |    |     |    |     |    |     |    |     |    |     |    |     | 0     |
| .76- 3.50      | 9  | 4   | 7  | 9   | 14 | 9   | 6  | 8   | 1  | 1   | 4  | 2   | 1  | 5   | 4  | 5   | 89    |
| 3.51- 7.50     | 28 | 10  | 6  | 4   | 1  | 1   | 5  | 1   | 17 | 13  | 12 | 18  | 13 | 6   | 8  | 8   | 151   |
| 7.51-12.50     | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 2  | 3   | 1  | 1   | 0  | 0   | 7     |
| 12.51-18.50    | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0     |
| 18.51-24.00    | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0     |
| >24.00         | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0     |
| TOTAL          | 37 | 14  | 13 | 13  | 15 | 10  | 11 | 9   | 18 | 14  | 18 | 23  | 15 | 12  | 12 | 13  | 247   |

STABILITY CLASS B  
STABILITY BASED ON: DELTA T BETWEEN 150.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: .75 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

| SPEED<br>(MPH) | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | TOTAL |
|----------------|---|-----|----|-----|---|-----|----|-----|---|-----|----|-----|---|-----|----|-----|-------|
| CALM           |   |     |    |     |   |     |    |     |   |     |    |     |   |     |    |     | 0     |
| .76- 3.50      | 1 | 2   | 2  | 3   | 3 | 1   | 0  | 0   | 0 | 1   | 0  | 4   | 2 | 0   | 0  | 3   | 22    |
| 3.51- 7.50     | 5 | 4   | 1  | 0   | 1 | 0   | 0  | 0   | 1 | 6   | 3  | 5   | 4 | 6   | 1  | 2   | 39    |
| 7.51-12.50     | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 1  | 3   | 1 | 0   | 0  | 0   | 5     |
| 12.51-18.50    | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 18.51-24.00    | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| >24.00         | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| TOTAL          | 6 | 6   | 3  | 3   | 4 | 1   | 0  | 0   | 1 | 7   | 4  | 12  | 7 | 6   | 1  | 5   | 66    |

ATMOSPHERIC SCIENCES DEPARTMENT

NIUS CORPORATION

PROGRAM: JFD VERSION: PC-1.0

BEAVER VALLEY JFD - GROUND LEVEL CONTINUOUS RELEASE

SITE IDENTIFIER: DLBV2

DATA PERIOD EXAMINED: 7/ 1/89 - 9/30/89

\*\*\* 3RD QTR 1989 \*\*\*

STABILITY CLASS C

BETWEEN 150.0 AND 35.0 FEET

STABILITY BASED ON: DELTA T

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: .75 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

| SPEED<br>(MPH) | N  | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W  | WNW | NW | NNW | TOTAL |
|----------------|----|-----|----|-----|---|-----|----|-----|---|-----|----|-----|----|-----|----|-----|-------|
| CALM           | 9  | 4   | 2  | 1   | 4 | 0   | 2  | 2   | 2 | 2   | 1  | 3   | 2  | 2   | 3  | 2   | 0     |
| .76- 3.50      |    |     |    |     |   |     |    |     |   |     |    |     |    |     |    |     | 41    |
| 3.51- 7.50     | 2  | 2   | 0  | 0   | 0 | 0   | 0  | 0   | 2 | 2   | 5  | 10  | 10 | 2   | 4  | 5   | 44    |
| 7.51-12.50     | 0  | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 2  | 4   | 1  | 0   | 0  | 1   | 8     |
| 12.51-18.50    | 0  | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0     |
| 18.51-24.00    | 0  | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0     |
| >24.00         | 0  | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0     |
| TOTAL          | 11 | 6   | 2  | 1   | 4 | 0   | 2  | 2   | 4 | 4   | 8  | 17  | 13 | 4   | 7  | 8   | 93    |

STABILITY CLASS D

BETWEEN 150.0 AND 35.0 FEET

STABILITY BASED ON: DELTA T

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: .75 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

| SPEED<br>(MPH) | N  | NNE | NE | ENE | E  | ESE | SE | SSE | S  | SSW | SW | WSW | W  | WNW | NW | NNW | TOTAL |
|----------------|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|-------|
| CALM           | 39 | 36  | 18 | 19  | 26 | 14  | 14 | 4   | 16 | 17  | 23 | 23  | 28 | 36  | 30 | 36  | 379   |
| .76- 3.50      |    |     |    |     |    |     |    |     |    |     |    |     |    |     |    |     | 1     |
| 3.51- 7.50     | 19 | 5   | 0  | 2   | 1  | 0   | 0  | 0   | 3  | 7   | 27 | 58  | 31 | 16  | 21 | 23  | 214   |
| 7.51-12.50     | 1  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 14 | 10  | 0  | 0   | 0  | 0   | 25    |
| 12.51-18.50    | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0     |
| 18.51-24.00    | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0     |
| >24.00         | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0     |
| TOTAL          | 59 | 41  | 18 | 21  | 27 | 15  | 14 | 4   | 19 | 24  | 64 | 91  | 59 | 52  | 51 | 59  | 619   |

PROGRAM: JFD VERSION: PC-1.0

BEAVER VALLEY JFD - GROUND LEVEL CONTINUOUS RELEASE

SITE IDENTIFIER: DLBV2

DATA PERIOD EXAMINED: 7/ 1/89 - 9/30/89

\*\*\* 3RD QTR 1989 \*\*\*

STABILITY CLASS E  
STABILITY BASED ON: DELTA T BETWEEN 150.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: .75 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

| SPEED<br>(MPH) | N  | NNE | NE | ENE | E  | ESE | SE | SSE | S  | SSW | SW | WSW | W  | WNW | NW | NNW | TOTAL |
|----------------|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|-------|
| CALM           |    |     |    |     |    |     |    |     |    |     |    |     |    |     |    |     | 10    |
| .76- 3.50      | 19 | 24  | 28 | 45  | 38 | 70  | 40 | 34  | 53 | 39  | 24 | 26  | 15 | 11  | 16 | 20  | 502   |
| 3.51- 7.50     | 3  | 1   | 0  | 1   | 0  | 0   | 0  | 0   | 2  | 15  | 17 | 20  | 3  | 2   | 2  | 0   | 67    |
| 7.51-12.50     | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 2   | 0  | 0   | 0  | 0   | 0  | 0   | 2     |
| 12.51-18.50    | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0     |
| 18.51-24.00    | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0     |
| >24.00         | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0     |
| TOTAL          | 22 | 25  | 28 | 46  | 38 | 71  | 40 | 34  | 55 | 56  | 41 | 46  | 18 | 13  | 18 | 20  | 581   |

STABILITY CLASS F  
STABILITY BASED ON: DELTA T BETWEEN 150.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: .75 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

| SPEED<br>(MPH) | N | NNE | NE | ENE | E  | ESE | SE | SSE | S  | SSW | SW | WSW | W | WNW | NW | NNW | TOTAL |
|----------------|---|-----|----|-----|----|-----|----|-----|----|-----|----|-----|---|-----|----|-----|-------|
| CALM           |   |     |    |     |    |     |    |     |    |     |    |     |   |     |    |     | 34    |
| .76- 3.50      | 2 | 1   | 7  | 12  | 26 | 67  | 94 | 86  | 26 | 9   | 3  | 2   | 0 | 0   | 4  | 1   | 340   |
| 3.51- 7.50     | 0 | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 2  | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 2     |
| 7.51-12.50     | 0 | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 12.51-18.50    | 0 | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 18.51-24.00    | 0 | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| >24.00         | 0 | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| TOTAL          | 2 | 1   | 7  | 12  | 26 | 67  | 94 | 86  | 28 | 9   | 3  | 2   | 0 | 0   | 4  | 1   | 376   |



PROGRAM: JFD VERSION: PC-1.0

BEAVER VALLEY JFD - GROUND LEVEL CONTINUOUS RELEASE

SITE IDENTIFIER: DLBV2

DATA PERIOD EXAMINED: 7/ 1/89 - 9/30/89

\*\*\* 3RD QTR 1989 \*\*\*

## STABILITY CLASS G

STABILITY BASED ON: DELTA T BETWEEN 150.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: .75 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

| SPEED<br>(MPH) | N | NNE | NE | ENE | E | ESE | SE | SSE | S  | SSW | SW | WSW | W | WNW | NW | NNW | TOTAL |
|----------------|---|-----|----|-----|---|-----|----|-----|----|-----|----|-----|---|-----|----|-----|-------|
| CALM           |   |     |    |     |   |     |    |     |    |     |    |     |   |     |    |     | 7     |
| .76- 3.50      | 0 | 1   | 3  | 2   | 8 | 34  | 73 | 65  | 17 | 1   | 1  | 1   | 0 | 0   | 0  | 0   | 206   |
| 3.51- 7.50     | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 7.51-12.50     | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 12.51-18.50    | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 18.51-24.00    | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| >24.00         | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| TOTAL          | 0 | 1   | 3  | 2   | 8 | 34  | 73 | 65  | 17 | 1   | 1  | 1   | 0 | 0   | 0  | 0   | 213   |

## STABILITY CLASS ALL

STABILITY BASED ON: DELTA T BETWEEN 150.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: .75 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

| SPEED<br>(MPH) | N   | NNE | NE | ENE | E   | ESE | SE  | SSE | S   | SSW | SW  | WSW | W   | WNW | NW | NNW | TOTAL |
|----------------|-----|-----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|-----|-------|
| CALM           |     |     |    |     |     |     |     |     |     |     |     |     |     |     |    |     | 52    |
| .76- 3.50      | 79  | 72  | 67 | 91  | 119 | 195 | 229 | 199 | 115 | 70  | 56  | 61  | 48  | 54  | 57 | 67  | 1579  |
| 3.51- 7.50     | 57  | 22  | 7  | 7   | 3   | 3   | 5   | 1   | 27  | 43  | 64  | 111 | 61  | 32  | 36 | 38  | 517   |
| 7.51-12.50     | 1   | 0   | 0  | 0   | 0   | 0   | 0   | 0   | 0   | 2   | 19  | 20  | 3   | 1   | 0  | 1   | 47    |
| 12.51-18.50    | 0   | 0   | 0  | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0  | 0   | 0     |
| 18.51-24.00    | 0   | 0   | 0  | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0  | 0   | 0     |
| >24.00         | 0   | 0   | 0  | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0  | 0   | 0     |
| TOTAL          | 137 | 94  | 74 | 98  | 122 | 198 | 234 | 200 | 142 | 115 | 139 | 192 | 112 | 87  | 93 | 106 | 2195  |

PROGRAM: JFD VERSION: PC-1.0

BEAVER VALLEY JFD - GROUND LEVEL CONTINUOUS RELEASE

SITE IDENTIFIER: DLBV2

DATA PERIOD EXAMINED: 7/ 1/89 - 9/30/89

\*\*\* 3RD QTR 1989 \*\*\*

STABILITY BASED ON: DELTA T BETWEEN 150.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: .75 MPH

TOTAL NUMBER OF OBSERVATIONS: 2208

TOTAL NUMBER OF VALID OBSERVATIONS: 2195

TOTAL NUMBER OF MISSING OBSERVATIONS: 13

PERCENT DATA RECOVERY FOR THIS PERIOD: 99.4 %

MEAN WIND SPEED FOR THIS PERIOD: 2.7 MPH

TOTAL NUMBER OF OBSERVATIONS WITH BACKUP DATA: 0

## PERCENTAGE OCCURRENCE OF STABILITY CLASSES

| A     | B    | C    | D     | E     | F     | G    |
|-------|------|------|-------|-------|-------|------|
| 11.25 | 3.01 | 4.24 | 28.20 | 26.47 | 17.13 | 9.70 |

## DISTRIBUTION OF WIND DIRECTION VS STABILITY

|       | N   | NNE | NE | ENE | E   | ESE | SE  | SSE | S   | SSW | SW  | WSW | W   | WNW | NW | NNW | CALM |
|-------|-----|-----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|-----|------|
| A     | 37  | 14  | 13 | 13  | 15  | 10  | 11  | 9   | 18  | 14  | 18  | 23  | 15  | 12  | 12 | 13  | 0    |
| B     | 6   | 6   | 3  | 3   | 4   | 1   | 0   | 0   | 1   | 7   | 4   | 12  | 7   | 6   | 1  | 5   | 0    |
| C     | 11  | 6   | 2  | 1   | 4   | 0   | 2   | 2   | 4   | 4   | 8   | 17  | 13  | 4   | 7  | 8   | 0    |
| D     | 59  | 41  | 18 | 21  | 27  | 15  | 14  | 4   | 19  | 24  | 64  | 91  | 59  | 52  | 51 | 59  | 1    |
| E     | 22  | 25  | 28 | 46  | 38  | 71  | 40  | 34  | 55  | 56  | 41  | 46  | 18  | 13  | 18 | 20  | 10   |
| F     | 2   | 1   | 7  | 12  | 26  | 67  | 94  | 86  | 28  | 9   | 3   | 2   | 0   | 0   | 4  | 1   | 34   |
| G     | 0   | 1   | 3  | 2   | 8   | 34  | 73  | 65  | 17  | 1   | 1   | 1   | 0   | 0   | 0  | 0   | 7    |
| TOTAL | 137 | 94  | 74 | 98  | 122 | 198 | 234 | 200 | 142 | 115 | 139 | 192 | 112 | 87  | 93 | 106 | 52   |





PROGRAM: JFD VERSION: PC-1.0

BEAVER VALLEY JFD - ELEVATED CONTINUOUS RELEASE

SITE IDENTIFIER: DLBV2

DATA PERIOD EXAMINED: 7/ 1/89 - 9/30/89

\*\*\* 3RD QTR 1989 \*\*\*

## STABILITY CLASS C

STABILITY BASED ON: DELTA T BETWEEN 500.0 AND 35.0 FEET

WIND MEASURED AT: 500.0 FEET

WIND THRESHOLD AT: .75 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 500.00 FEET

| SPEED<br>(MPH) | N | NNE | NE | ENE | E | ESE | SE | SSE | S  | SSW | SW | WSW | W | WNW | NW | NNW | TOTAL |
|----------------|---|-----|----|-----|---|-----|----|-----|----|-----|----|-----|---|-----|----|-----|-------|
| CALM           |   |     |    |     |   |     |    |     |    |     |    |     |   |     |    |     | 0     |
| .76- 3.50      | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0 | 1   | 0  | 0   | 1     |
| 3.51- 7.50     | 2 | 1   | 1  | 7   | 4 | 1   | 1  | 3   | 1  | 0   | 0  | 3   | 1 | 1   | 0  | 1   | 27    |
| 7.51-12.50     | 2 | 3   | 5  | 3   | 0 | 0   | 0  | 3   | 10 | 3   | 2  | 4   | 0 | 0   | 0  | 3   | 38    |
| 12.51-18.50    | 2 | 0   | 1  | 0   | 0 | 0   | 3  | 0   | 0  | 1   | 0  | 0   | 1 | 1   | 0  | 0   | 9     |
| 18.51-24.00    | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| >24.00         | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| TOTAL          | 6 | 4   | 7  | 10  | 4 | 1   | 4  | 6   | 11 | 4   | 2  | 7   | 2 | 3   | 0  | 4   | 75    |

## STABILITY CLASS D

STABILITY BASED ON: DELTA T BETWEEN 500.0 AND 35.0 FEET

WIND MEASURED AT: 500.0 FEET

WIND THRESHOLD AT: .75 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 500.00 FEET

| SPEED<br>(MPH) | N   | NNE | NE | ENE | E  | ESE | SE | SSE | S  | SSW | SW | WSW | W   | WNW | NW | NNW | TOTAL |
|----------------|-----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|-----|-----|----|-----|-------|
| CALM           |     |     |    |     |    |     |    |     |    |     |    |     |     |     |    |     | 0     |
| .76- 3.50      | 10  | 8   | 12 | 6   | 9  | 10  | 4  | 4   | 5  | 7   | 3  | 8   | 10  | 8   | 10 | 6   | 120   |
| 3.51- 7.50     | 34  | 21  | 27 | 29  | 32 | 15  | 10 | 8   | 22 | 12  | 18 | 27  | 18  | 31  | 18 | 34  | 356   |
| 7.51-12.50     | 68  | 12  | 11 | 27  | 17 | 12  | 7  | 12  | 18 | 16  | 33 | 48  | 61  | 28  | 25 | 32  | 427   |
| 12.51-18.50    | 10  | 6   | 2  | 6   | 1  | 0   | 5  | 1   | 1  | 0   | 37 | 26  | 34  | 13  | 10 | 8   | 160   |
| 18.51-24.00    | 0   | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 1  | 1   | 3  | 3   | 3   | 3   | 1  | 0   | 15    |
| >24.00         | 0   | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 1  | 2   | 0  | 0   | 1   | 0   | 0  | 0   | 4     |
| TOTAL          | 122 | 47  | 52 | 68  | 59 | 37  | 26 | 25  | 48 | 38  | 94 | 112 | 127 | 83  | 64 | 80  | 1082  |

PROGRAM: JFD VERSION: PC-1.0

BEAVER VALLEY JFD - ELEVATED CONTINUOUS RELEASE

SITE IDENTIFIER: DLBV2

DATA PERIOD EXAMINED: 7/ 1/89 - 9/30/89

\*\*\* 3RD QTR 1989 \*\*\*

## STABILITY CLASS E

STABILITY BASED ON: DELTA T BETWEEN 500.0 AND 35.0 FEET

WIND MEASURED AT: 500.0 FEET

WIND THRESHOLD AT: .75 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 500.00 FEET

| SPEED<br>(MPH) | N  | NNE | NE | ENE | E  | ESE | SE | SSE | S  | SSW | SW | WSW | W  | WNW | NW | NNW | TOTAL |
|----------------|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|-------|
| CALM           |    |     |    |     |    |     |    |     |    |     |    |     |    |     |    |     | 2     |
| .76- 3.50      | 11 | 12  | 22 | 13  | 23 | 9   | 12 | 11  | 8  | 6   | 6  | 18  | 20 | 7   | 10 | 6   | 194   |
| 3.51- 7.50     | 19 | 17  | 20 | 36  | 21 | 19  | 15 | 10  | 7  | 9   | 5  | 27  | 25 | 13  | 5  | 6   | 254   |
| 7.51-12.50     | 13 | 7   | 14 | 25  | 20 | 5   | 11 | 9   | 10 | 10  | 31 | 5   | 36 | 9   | 3  | 5   | 213   |
| 12.51-18.50    | 7  | 3   | 0  | 3   | 3  | 1   | 4  | 7   | 5  | 5   | 13 | 2   | 8  | 2   | 0  | 2   | 65    |
| 18.51-24.00    | 0  | 0   | 0  | 1   | 0  | 0   | 1  | 1   | 0  | 3   | 7  | 0   | 0  | 0   | 0  | 0   | 13    |
| >24.00         | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0     |
| TOTAL          | 50 | 39  | 56 | 78  | 67 | 34  | 43 | 38  | 30 | 33  | 62 | 52  | 89 | 31  | 18 | 19  | 741   |

## STABILITY CLASS F

STABILITY BASED ON: DELTA T BETWEEN 500.0 AND 35.0 FEET

WIND MEASURED AT: 500.0 FEET

WIND THRESHOLD AT: .75 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 500.00 FEET

| SPEED<br>(MPH) | N  | NNE | NE | ENE | E  | ESE | SE | SSE | S  | SSW | SW | WSW | W  | WNW | NW | NNW | TOTAL |
|----------------|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|-------|
| CALM           |    |     |    |     |    |     |    |     |    |     |    |     |    |     |    |     | 4     |
| .76- 3.50      | 11 | 11  | 14 | 15  | 19 | 11  | 10 | 2   | 8  | 6   | 9  | 11  | 7  | 7   | 6  | 4   | 151   |
| 3.51- 7.50     | 5  | 3   | 11 | 17  | 11 | 8   | 1  | 1   | 2  | 0   | 9  | 4   | 1  | 9   | 1  | 4   | 87    |
| 7.51-12.50     | 2  | 1   | 2  | 2   | 8  | 4   | 0  | 7   | 1  | 2   | 2  | 2   | 0  | 1   | 0  | 1   | 37    |
| 12.51-18.50    | 1  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 2  | 3   | 2  | 0   | 0  | 0   | 0  | 0   | 8     |
| 18.51-24.00    | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 1   | 0  | 0   | 0  | 0   | 0  | 0   | 1     |
| >24.00         | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0     |
| TOTAL          | 19 | 15  | 27 | 34  | 38 | 23  | 11 | 10  | 13 | 12  | 22 | 17  | 10 | 17  | 7  | 9   | 283   |

PROGRAM: JFD VERSION: PC-1.0

BEAVER VALLEY JFD - ELEVATED CONTINUOUS RELEASE  
 SITE IDENTIFIER: DLBVZ  
 DATA PERIOD EXAMINED: 7/ 1/89 - 9/30/89

\*\*\* 3RD QTR 1989 \*\*\*

STABILITY CLASS G  
 STABILITY BASED ON: DELTA T BETWEEN 500.0 AND 35.0 FEET

WIND MEASURED AT: 500.0 FEET

WIND THRESHOLD AT: .75 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 500.00 FEET

| SPEED<br>(MPH) | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | TOTAL |
|----------------|---|-----|----|-----|---|-----|----|-----|---|-----|----|-----|---|-----|----|-----|-------|
| CALM           | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| .76- 3.50      | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 3.51- 7.50     | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 7.51-12.50     | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 12.51-18.50    | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 18.51-24.00    | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| >24.00         | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| TOTAL          | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |

STABILITY CLASS ALL  
 STABILITY BASED ON: DELTA T BETWEEN 500.0 AND 35.0 FEET

WIND MEASURED AT: 500.0 FEET

WIND THRESHOLD AT: .75 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 500.00 FEET

| SPEED<br>(MPH) | N   | NNE | NE  | ENE | E   | ESE | SE | SSE | S   | SSW | SW  | WSW | W   | WNW | NW | NNW | TOTAL |
|----------------|-----|-----|-----|-----|-----|-----|----|-----|-----|-----|-----|-----|-----|-----|----|-----|-------|
| CALM           | 32  | 31  | 48  | 34  | 51  | 30  | 27 | 17  | 21  | 19  | 18  | 37  | 37  | 23  | 26 | 16  | 467   |
| .76- 3.50      | 61  | 42  | 59  | 89  | 69  | 44  | 28 | 22  | 32  | 21  | 32  | 61  | 45  | 54  | 24 | 45  | 728   |
| 3.51- 7.50     | 85  | 23  | 33  | 59  | 45  | 21  | 19 | 32  | 39  | 31  | 68  | 59  | 99  | 38  | 28 | 41  | 720   |
| 7.51-12.50     | 20  | 9   | 3   | 9   | 4   | 1   | 14 | 10  | 8   | 9   | 52  | 28  | 43  | 16  | 10 | 10  | 246   |
| 12.51-18.50    | 0   | 0   | 0   | 1   | 0   | 0   | 1  | 1   | 1   | 5   | 10  | 3   | 3   | 3   | 1  | 0   | 29    |
| 18.51-24.00    | 0   | 0   | 0   | 0   | 0   | 0   | 0  | 0   | 1   | 2   | 0   | 0   | 1   | 0   | 0  | 0   | 4     |
| >24.00         | 0   | 0   | 0   | 0   | 0   | 0   | 0  | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0  | 0   | 0     |
| TOTAL          | 198 | 105 | 143 | 192 | 169 | 96  | 89 | 82  | 102 | 87  | 180 | 188 | 228 | 134 | 89 | 112 | 2200  |



PROGRAM: JFD VERSION: PC-1.0

BEAVER VALLEY JFD - ELEVATED CONTINUOUS RELEASE

SITE IDENTIFIER: DLBV2

DATA PERIOD EXAMINED: 7/ 1/89 - 9/30/89

\*\*\* 3RD QTR 1989 \*\*\*

STABILITY BASED ON: DELTA T BETWEEN 500.0 AND 35.0 FEET

WIND MEASURED AT: 500.0 FEET

WIND THRESHOLD AT: .75 MPH

TOTAL NUMBER OF OBSERVATIONS: 2208

TOTAL NUMBER OF VALID OBSERVATIONS: 2200

TOTAL NUMBER OF MISSING OBSERVATIONS: 8

PERCENT DATA RECOVERY FOR THIS PERIOD: 99.6 %

MEAN WIND SPEED FOR THIS PERIOD: 7.4 MPH

TOTAL NUMBER OF OBSERVATIONS WITH BACKUP DATA: 0

## PERCENTAGE OCCURRENCE OF STABILITY CLASSES

| A   | B   | C    | D     | E     | F     | G   |
|-----|-----|------|-------|-------|-------|-----|
| .09 | .55 | 3.41 | 49.18 | 33.68 | 13.09 | .00 |

## DISTRIBUTION OF WIND DIRECTION VS STABILITY

|       | N   | NNE | NE  | ENE | E   | ESE | SE | SSE | S   | SSW | SW  | WSW | W   | WNW | NW | NNW | CALM |
|-------|-----|-----|-----|-----|-----|-----|----|-----|-----|-----|-----|-----|-----|-----|----|-----|------|
| A     | 0   | 0   | 0   | 1   | 0   | 0   | 1  | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0  | 0   | 0    |
| B     | 1   | 0   | 1   | 1   | 1   | 1   | 4  | 3   | 0   | 0   | 0   | 0   | 0   | 0   | 0  | 0   | 0    |
| C     | 6   | 4   | 7   | 10  | 4   | 1   | 4  | 6   | 11  | 4   | 2   | 7   | 2   | 3   | 0  | 4   | 0    |
| D     | 122 | 47  | 52  | 68  | 59  | 37  | 26 | 25  | 48  | 38  | 94  | 112 | 127 | 83  | 64 | 80  | 0    |
| E     | 50  | 39  | 56  | 78  | 67  | 34  | 43 | 38  | 30  | 33  | 62  | 52  | 89  | 31  | 18 | 19  | 2    |
| F     | 19  | 15  | 27  | 34  | 38  | 23  | 11 | 10  | 13  | 12  | 22  | 17  | 10  | 17  | 7  | 9   | 4    |
| G     | 0   | 0   | 0   | 0   | 0   | 0   | 0  | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0  | 0   | 0    |
| TOTAL | 198 | 105 | 143 | 192 | 169 | 96  | 89 | 82  | 102 | 87  | 180 | 188 | 228 | 134 | 89 | 112 | 6    |

Beaver Valley  
Joint Frequency Distribution Tables  
for  
Batch Releases

Delta T (150ft-35ft) and 35-Ft Wind  
and  
Delta T (500ft-35ft) and 500-Ft Wind

Third Quarter 1989

PROGRAM: JFD VERSION: PC-1.0

BEAVER VALLEY JFD - GROUND LEVEL BATCH RELEASES

SITE IDENTIFIER:

DATA PERIOD EXAMINED: 7/ 1/89 - 9/30/89

\*\*\* 3RD QTR 1989 \*\*\*

## STABILITY CLASS A

BETWEEN 150.0 AND 35.0 FEET

STABILITY BASED ON: DELTA T

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: .75 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

| PERCENT DISTRIBUTION OF WIND SPEED AND DIRECTION IN MOORS AT 50.00 FEET |   |     |    |     |   |     |    |     |   |     |    |     |   |     |    |     |       |
|-------------------------------------------------------------------------|---|-----|----|-----|---|-----|----|-----|---|-----|----|-----|---|-----|----|-----|-------|
| SPEED<br>(MPH)                                                          | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | TOTAL |
| CALM                                                                    | 1 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 1   | 0  | 0   | 0     |
| 7.6- 3.50                                                               | 0 | 0   | 0  | 0   | 0 | 1   | 4  | 0   | 2 | 1   | 0  | 0   | 2 | 0   | 1  | 0   | 2     |
| 3.51- 7.50                                                              | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 11    |
| 7.51-12.50                                                              | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 12.51-18.50                                                             | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 18.51-24.00                                                             | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| >24.00                                                                  | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| TOTAL                                                                   | 1 | 0   | 0  | 0   | 0 | 1   | 4  | 0   | 2 | 1   | 0  | 0   | 2 | 0   | 1  | 0   | 13    |

## STABILITY CLASS B

BETWEEN 150.0 AND 35.0 FEET

STABILITY BASED ON: DELTA T

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: .75 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

[illegible]



BEAVER VALLEY JFD - GROUND LEVEL BATCH RELEASES

DATA PERIOD EXAMINED: 7/ 1/89 - 9/30/89

3RD QTR 1989 \*\*\*

| STABILITY CLASS             | C |
|-----------------------------|---|
| BETWEEN 150.0 AND 35.0 FEET |   |

STABILITY BASED ON: DELTA I  
WIND MEASURED AT: 35.0 FEET

| WIND | MEASURED  | AT: | 35.0 | FEET |
|------|-----------|-----|------|------|
| WIND | THRESHOLD | AT: | 75   | MPH  |

WIND THRESHOLD AT: .75 MPH  
JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET[illegible]

| STABILITY CLASS | DELTA T   | STABILITY CLASS | DELTA T   |
|-----------------|-----------|-----------------|-----------|
| 0               | 35.0 FEET | 0               | 35.0 FEET |
| 1               | 150.0     | 1               | 150.0     |
| 2               | 150.0     | 2               | 150.0     |
| 3               | 150.0     | 3               | 150.0     |
| 4               | 150.0     | 4               | 150.0     |
| 5               | 150.0     | 5               | 150.0     |
| 6               | 150.0     | 6               | 150.0     |
| 7               | 150.0     | 7               | 150.0     |
| 8               | 150.0     | 8               | 150.0     |
| 9               | 150.0     | 9               | 150.0     |
| 10              | 150.0     | 10              | 150.0     |
| 11              | 150.0     | 11              | 150.0     |
| 12              | 150.0     | 12              | 150.0     |
| 13              | 150.0     | 13              | 150.0     |
| 14              | 150.0     | 14              | 150.0     |
| 15              | 150.0     | 15              | 150.0     |
| 16              | 150.0     | 16              | 150.0     |
| 17              | 150.0     | 17              | 150.0     |
| 18              | 150.0     | 18              | 150.0     |
| 19              | 150.0     | 19              | 150.0     |
| 20              | 150.0     | 20              | 150.0     |
| 21              | 150.0     | 21              | 150.0     |
| 22              | 150.0     | 22              | 150.0     |
| 23              | 150.0     | 23              | 150.0     |
| 24              | 150.0     | 24              | 150.0     |
| 25              | 150.0     | 25              | 150.0     |
| 26              | 150.0     | 26              | 150.0     |
| 27              | 150.0     | 27              | 150.0     |
| 28              | 150.0     | 28              | 150.0     |
| 29              | 150.0     | 29              | 150.0     |
| 30              | 150.0     | 30              | 150.0     |
| 31              | 150.0     | 31              | 150.0     |
| 32              | 150.0     | 32              | 150.0     |
| 33              | 150.0     | 33              | 150.0     |
| 34              | 150.0     | 34              | 150.0     |
| 35              | 150.0     | 35              | 150.0     |
| 36              | 150.0     | 36              | 150.0     |
| 37              | 150.0     | 37              | 150.0     |
| 38              | 150.0     | 38              | 150.0     |
| 39              | 150.0     | 39              | 150.0     |
| 40              | 150.0     | 40              | 150.0     |
| 41              | 150.0     | 41              | 150.0     |
| 42              | 150.0     | 42              | 150.0     |
| 43              | 150.0     | 43              | 150.0     |
| 44              | 150.0     | 44              | 150.0     |
| 45              | 150.0     | 45              | 150.0     |
| 46              | 150.0     | 46              | 150.0     |
| 47              | 150.0     | 47              | 150.0     |
| 48              | 150.0     | 48              | 150.0     |
| 49              | 150.0     | 49              | 150.0     |
| 50              | 150.0     | 50              | 150.0     |
| 51              | 150.0     | 51              | 150.0     |
| 52              | 150.0     | 52              | 150.0     |
| 53              | 150.0     | 53              | 150.0     |
| 54              | 150.0     | 54              | 150.0     |
| 55              | 150.0     | 55              | 150.0     |
| 56              | 150.0     | 56              | 150.0     |
| 57              | 150.0     | 57              | 150.0     |
| 58              | 150.0     | 58              | 150.0     |
| 59              | 150.0     | 59              | 150.0     |
| 60              | 150.0     | 60              | 150.0     |
| 61              | 150.0     | 61              | 150.0     |
| 62              | 150.0     | 62              | 150.0     |
| 63              | 150.0     | 63              | 150.0     |
| 64              | 150.0     | 64              | 150.0     |
| 65              | 150.0     | 65              | 150.0     |
| 66              | 150.0     | 66              | 150.0     |
| 67              | 150.0     | 67              | 150.0     |
| 68              | 150.0     | 68              | 150.0     |
| 69              | 150.0     | 69              | 150.0     |
| 70              | 150.0     | 70              | 150.0     |
| 71              | 150.0     | 71              | 150.0     |
| 72              | 150.0     | 72              | 150.0     |
| 73              | 150.0     | 73              | 150.0     |
| 74              | 150.0     | 74              | 150.0     |
| 75              | 150.0     | 75              | 150.0     |
| 76              | 150.0     | 76              | 150.0     |
| 77              | 150.0     | 77              | 150.0     |
| 78              | 150.0     | 78              | 150.0     |
| 79              | 150.0     | 79              | 150.0     |
| 80              | 150.0     | 80              | 150.0     |
| 81              | 150.0     | 81              | 150.0     |
| 82              | 150.0     | 82              | 150.0     |
| 83              | 150.0     | 83              | 150.0     |
| 84              | 150.0     | 84              | 150.0     |
| 85              | 150.0     | 85              | 150.0     |
| 86              | 150.0     | 86              | 150.0     |
| 87              | 150.0     | 87              | 150.0     |
| 88              | 150.0     | 88              | 150.0     |
| 89              | 150.0     | 89              | 150.0     |
|                 |           |                 |           |

STABILITY BASED ON: DELTA T

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: .75 MPH

| JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET |   |     |    |     |   |     |    |     |   |     |    |     |   |     |    |     |       |
|---------------------------------------------------------------------------------|---|-----|----|-----|---|-----|----|-----|---|-----|----|-----|---|-----|----|-----|-------|
| SPEED<br>(MPH)                                                                  | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | TOTAL |
| CALM                                                                            | 0 | 0   | 0  | 0   | 0 | 0   | 1  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| .76- 3.50                                                                       | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 1     |
| 3.51- 7.50                                                                      | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 7.51-12.50                                                                      | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 12.51-17.50                                                                     | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 17.51-22.50                                                                     | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 22.51-27.50                                                                     | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 27.51-32.50                                                                     | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 32.51-37.50                                                                     | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 37.51-42.50                                                                     | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 42.51-47.50                                                                     | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 47.51-52.50                                                                     | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 52.51-57.50                                                                     | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 57.51-62.50                                                                     | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 62.51-67.50                                                                     | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 67.51-72.50                                                                     | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 72.51-77.50                                                                     | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 77.51-82.50                                                                     | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 82.51-87.50                                                                     | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 87.51-92.50                                                                     | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 92.51-97.50                                                                     | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 97.51-102.50                                                                    | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 102.51-107.50                                                                   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 107.51-112.50                                                                   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 112.51-117.50                                                                   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 117.51-122.50                                                                   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 122.51-127.50                                                                   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 127.51-132.50                                                                   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 132.51-137.50                                                                   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 137.51-142.50                                                                   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 142.51-147.50                                                                   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 147.51-152.50                                                                   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 152.51-157.50                                                                   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 157.51-162.50                                                                   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 162.51-167.50                                                                   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 167.51-172.50                                                                   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 172.51-177.50                                                                   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 177.51-182.50                                                                   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 182.51-187.50                                                                   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 187.51-192.50                                                                   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 192.51-197.50                                                                   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 197.51-202.50                                                                   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 202.51-207.50                                                                   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 207.51-212.50                                                                   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 212.51-217.50                                                                   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 217.51-222.50                                                                   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 222.51-227.50                                                                   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 227.51-232.50                                                                   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 232.51-237.50                                                                   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 237.51-242.50                                                                   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 242.51-247.50                                                                   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 247.51-252.50                                                                   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 252.51-257.50                                                                   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 257.51-262.50                                                                   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 262.51-267.50                                                                   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 267.51-272.50                                                                   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 272.51-277.50                                                                   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 277.51-282.50                                                                   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 282.51-287.50                                                                   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 287.51-292.50                                                                   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 292.51-297.50                                                                   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 297.51-302.50                                                                   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 302.51-307.50                                                                   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 307.51-312.50                                                                   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 312.51-317.50                                                                   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 317.51-322.50                                                                   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 322.51-327.50                                                                   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 327.51-332.50                                                                   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 332.51-337.50                                                                   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 337.51-342.50                                                                   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 342.51-347.50                                                                   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 347.51-352.50                                                                   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 352.51-357.50                                                                   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 357.51-362.50                                                                   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 362.51-367.50                                                                   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 367.51-372.50                                                                   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 372.51-377.50                                                                   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 377.51-382.50                                                                   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 382.51-387.50                                                                   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 387.51-392.50                                                                   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 392.51-397.50                                                                   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 397.51-402.50                                                                   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 402.51-407.50                                                                   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 407.51-412.50                                                                   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 412.51-417.50                                                                   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 417.51-422.50                                                                   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 422.51-427.50                                                                   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 427.51-432.50                                                                   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 432.51-437.50                                                                   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 437.51-442.50                                                                   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 442.51-447.50                                                                   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 447.51-452.50                                                                   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 452.51-457.50                                                                   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 457.51-462.50                                                                   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 462.51-467.50                                                                   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 467.51-472.50                                                                   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 472.51-477.50                                                                   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 477.51-482.50                                                                   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 482.51-487.50                                                                   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 487.                                                                            |   |     |    |     |   |     |    |     |   |     |    |     |   |     |    |     |       |

NUS CORPORATION

ATMOSPHERIC SCIENCE DEPARTMENT

PAGE 4

PROGRAM: JFD VERSION: PC-1.0

BEAVER VALLEY JFD - GROUND LEVEL BATCH RELEASES

SITE IDENTIFIER:

DATA PERIOD EXAMINED: 7/ 1/89 - 9/30/89

\*\*\* 3RD QTR 1989 \*\*\*

STABILITY CLASS E

STABILITY BASED ON: DELTA T BETWEEN 150.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: .75 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

| SPEED<br>(MPH) | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NNW | TOTAL |
|----------------|---|-----|----|-----|---|-----|----|-----|---|-----|----|-----|---|-----|-----|-------|
| CALM           | 0 | 1   | 2  | 4   | 2 | 1   | 1  | 0   | 1 | 1   | 1  | 1   | 0 | 0   | 0   | 0     |
| .76- 3.50      | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0   | 0     |
| 3.51- 7.50     | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0   | 15    |
| 7.51-12.50     | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0   | 0     |
| 12.51-18.50    | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0   | 0     |
| 18.51-24.00    | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0   | 0     |
| >24.00         | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0   | 0     |
| TOTAL          | 0 | 1   | 2  | 4   | 2 | 1   | 1  | 0   | 1 | 1   | 1  | 1   | 0 | 0   | 0   | 15    |

STABILITY CLASS F

STABILITY BASED ON: DELTA T BETWEEN 150.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: .75 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

| SPEED<br>(MPH) | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NNW | TOTAL |
|----------------|---|-----|----|-----|---|-----|----|-----|---|-----|----|-----|---|-----|-----|-------|
| CALM           | 0 | 0   | 1  | 2   | 0 | 0   | 1  | 3   | 1 | 1   | 1  | 0   | 0 | 0   | 0   | 0     |
| .76- 3.50      | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0   | 0     |
| 3.51- 7.50     | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0   | 0     |
| 7.51-12.50     | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0   | 0     |
| 12.51-18.50    | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0   | 0     |
| 18.51-24.00    | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0   | 0     |
| >24.00         | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0   | 0     |
| TOTAL          | 0 | 0   | 1  | 2   | 0 | 0   | 1  | 3   | 1 | 1   | 1  | 0   | 0 | 0   | 0   | 11    |

NUS CORPORATION

ATMOSPHERIC SCIENCE DEPARTMENT

PAGE 5

PROGRAM: JFD VERSION: PC-1.0

BEAVER VALLEY JFD - GROUND LEVEL BATCH RELEASES

SITE IDENTIFIER:

DATA PERIOD EXAMINED: 7/ 1/89 - 9/30/89

\*\*\* 3RD QTR 1989 \*\*\*

STABILITY BASED ON: DELTA T BETWEEN 150.0 AND 35.0 FEET  
WIND MEASURED AT: 35.0 FEET  
WIND THRESHOLD AT: .75 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

| SPEED<br>(MPH) | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | TOTAL |
|----------------|---|-----|----|-----|---|-----|----|-----|---|-----|----|-----|---|-----|----|-----|-------|
| CALM           | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| .76- 3.50      | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 3.51- 7.50     | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 7.51-12.50     | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 12.51-18.50    | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 18.51-24.00    | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| >24.00         | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| TOTAL          | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |

STABILITY BASED ON: DELTA T BETWEEN 150.0 AND 35.0 FEET  
WIND MEASURED AT: 35.0 FEET  
WIND THRESHOLD AT: .75 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

| SPEED<br>(MPH) | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | TOTAL |
|----------------|---|-----|----|-----|---|-----|----|-----|---|-----|----|-----|---|-----|----|-----|-------|
| CALM           | 1 | 1   | 3  | 6   | 2 | 1   | 3  | 3   | 2 | 2   | 2  | 1   | 0 | 1   | 1  | 0   | 29    |
| .76- 3.50      | 0 | 0   | 0  | 0   | 0 | 1   | 4  | 0   | 2 | 1   | 0  | 0   | 2 | 0   | 1  | 0   | 11    |
| 3.51- 7.50     | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 7.51-12.50     | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 12.51-18.50    | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 18.51-24.00    | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| >24.00         | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| TOTAL          | 1 | 1   | 3  | 6   | 2 | 2   | 7  | 3   | 4 | 3   | 2  | 1   | 2 | 1   | 2  | 0   | 40    |







PROGRAM: JFD VERSION: PC-1.0

BEAVER VALLEY JFD - ELEVATED BATCH RELEASES

SITE IDENTIFIER: DLBV2

DATA PERIOD EXAMINED: 7/ 1/89 - 9/30/89

\*\*\* 3RD QTR 1989 \*\*\*

## STABILITY CLASS C

STABILITY BASED ON: DELTA T BETWEEN 500.0 AND 35.0 FEET

WIND MEASURED AT: 500.0 FEET

WIND THRESHOLD AT: .75 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 500.00 FEET

| SPEED<br>(MPH) | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | TOTAL |
|----------------|---|-----|----|-----|---|-----|----|-----|---|-----|----|-----|---|-----|----|-----|-------|
| CALM           |   |     |    |     |   |     |    |     |   |     |    |     |   |     |    |     | 0     |
| .76- 3.50      | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 3.51- 7.50     | 1 | 1   | 0  | 1   | 1 | 0   | 1  | 2   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 7     |
| 7.51-12.50     | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 1   | 6 | 1   | 0  | 0   | 0 | 0   | 0  | 0   | 8     |
| 12.51-18.50    | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 1   | 0  | 0   | 1     |
| 18.51-24.00    | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| >24.00         | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| TOTAL          | 1 | 1   | 0  | 1   | 1 | 0   | 1  | 3   | 6 | 1   | 0  | 0   | 0 | 1   | 0  | 0   | 16    |

## STABILITY CLASS D

STABILITY BASED ON: DELTA T BETWEEN 500.0 AND 35.0 FEET

WIND MEASURED AT: 500.0 FEET

WIND THRESHOLD AT: .75 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 500.00 FEET

| SPEED<br>(MPH) | N  | NNE | NE | ENE | E | ESE | SE | SSE | S  | SSW | SW | WSW | W  | WNW | NW | NNW | TOTAL |
|----------------|----|-----|----|-----|---|-----|----|-----|----|-----|----|-----|----|-----|----|-----|-------|
| CALM           |    |     |    |     |   |     |    |     |    |     |    |     |    |     |    |     | 0     |
| .76- 3.50      | 4  | 2   | 4  | 1   | 2 | 3   | 1  | 1   | 2  | 1   | 1  | 3   | 3  | 2   | 4  | 2   | 36    |
| 3.51- 7.50     | 10 | 5   | 8  | 2   | 3 | 1   | 1  | 3   | 11 | 2   | 10 | 12  | 5  | 7   | 7  | 15  | 102   |
| 7.51-12.50     | 6  | 1   | 1  | 1   | 2 | 2   | 3  | 6   | 9  | 4   | 15 | 12  | 15 | 1   | 7  | 8   | 93    |
| 12.51-18.50    | 0  | 0   | 0  | 0   | 0 | 0   | 2  | 1   | 1  | 0   | 4  | 3   | 0  | 1   | 4  | 1   | 17    |
| 18.51-24.00    | 0  | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 2  | 2   | 0  | 0   | 4     |
| >24.00         | 0  | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0     |
| TOTAL          | 20 | 8   | 13 | 4   | 7 | 6   | 7  | 11  | 23 | 7   | 30 | 30  | 25 | 13  | 22 | 26  | 252   |



PROGRAM: JFD VERSION: PC-1.0

BEAVER VALLEY JFD - ELEVATED BATCH RELEASES

SITE IDENTIFIER: DLBV2

DATA PERIOD EXAMINED: 7/ 1/89 - 9/30/89

\*\*\* 3RD QTR 1989 \*\*\*

## STABILITY CLASS E

STABILITY BASED ON: DELTA T BETWEEN 500.0 AND 35.0 FEET

WIND MEASURED AT: 500.0 FEET

WIND THRESHOLD AT: .75 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 500.00 FEET

| SPEED<br>(MPH) | N  | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W  | WNW | NW | NNW | TOTAL |
|----------------|----|-----|----|-----|---|-----|----|-----|---|-----|----|-----|----|-----|----|-----|-------|
| CALM           |    |     |    |     |   |     |    |     |   |     |    |     |    |     |    |     | 1     |
| .76- 3.50      | 4  | 3   | 6  | 5   | 6 | 1   | 7  | 4   | 5 | 0   | 0  | 4   | 5  | 2   | 4  | 0   | 56    |
| 3.51- 7.50     | 8  | 2   | 1  | 7   | 1 | 3   | 9  | 3   | 0 | 4   | 2  | 10  | 4  | 3   | 1  | 2   | 60    |
| 7.51-12.50     | 3  | 2   | 0  | 1   | 1 | 0   | 4  | 2   | 1 | 5   | 10 | 1   | 7  | 0   | 0  | 1   | 38    |
| 12.51-18.50    | 1  | 0   | 0  | 0   | 0 | 0   | 0  | 4   | 0 | 0   | 3  | 0   | 0  | 0   | 0  | 0   | 8     |
| 18.51-24.00    | 0  | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0     |
| >24.00         | 0  | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0     |
| TOTAL          | 16 | 7   | 7  | 13  | 8 | 4   | 20 | 13  | 6 | 9   | 15 | 15  | 16 | 5   | 5  | 3   | 163   |

## STABILITY CLASS F

STABILITY BASED ON: DELTA T BETWEEN 500.0 AND 35.0 FEET

WIND MEASURED AT: 500.0 FEET

WIND THRESHOLD AT: .75 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 500.00 FEET

| SPEED<br>(MPH) | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | TOTAL |
|----------------|---|-----|----|-----|---|-----|----|-----|---|-----|----|-----|---|-----|----|-----|-------|
| CALM           |   |     |    |     |   |     |    |     |   |     |    |     |   |     |    |     | 0     |
| .76- 3.50      | 6 | 4   | 3  | 5   | 2 | 1   | 3  | 1   | 2 | 0   | 5  | 2   | 1 | 3   | 1  | 2   | 41    |
| 3.51- 7.50     | 2 | 0   | 0  | 2   | 0 | 1   | 1  | 0   | 0 | 0   | 3  | 0   | 0 | 1   | 0  | 1   | 11    |
| 7.51-12.50     | 1 | 0   | 0  | 0   | 0 | 0   | 0  | 2   | 1 | 1   | 0  | 0   | 0 | 0   | 0  | 0   | 5     |
| 12.51-18.50    | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 2   | 0  | 0   | 0 | 0   | 0  | 0   | 2     |
| 18.51-24.00    | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| >24.00         | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| TOTAL          | 9 | 4   | 3  | 7   | 2 | 2   | 4  | 3   | 3 | 3   | 8  | 2   | 1 | 4   | 1  | 3   | 59    |

PROGRAM: JFD VERSION: PC-1.0

BEAVER VALLEY JFD - ELEVATED BATCH RELEASES

SITE IDENTIFIER: DLBV2

DATA PERIOD EXAMINED: 7/ 1/89 - 9/30/89

\*\*\* 3RD QTR 1989 \*\*\*

## STABILITY CLASS G

STABILITY BASED ON: DELTA T BETWEEN 500.0 AND 35.0 FEET

WIND MEASURED AT: 500.0 FEET

WIND THRESHOLD AT: .75 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 500.00 FEET

| SPEED<br>(MPH) | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | TOTAL |
|----------------|---|-----|----|-----|---|-----|----|-----|---|-----|----|-----|---|-----|----|-----|-------|
| CALM           |   |     |    |     |   |     |    |     |   |     |    |     |   |     |    |     | 0     |
| .76- 3.50      | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 3.51- 7.50     | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 7.51-12.50     | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 12.51-18.50    | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 18.51-24.00    | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| >24.00         | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| TOTAL          | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |

## STABILITY CLASS ALL

STABILITY BASED ON: DELTA T BETWEEN 500.0 AND 35.0 FEET

WIND MEASURED AT: 500.0 FEET

WIND THRESHOLD AT: .75 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 500.00 FEET

| SPEED<br>(MPH) | N  | NNE | NE | ENE | E  | ESE | SE | SSE | S  | SSW | SW | WSW | W  | WNW | NW | NNW | TOTAL |
|----------------|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|-------|
| CALM           |    |     |    |     |    |     |    |     |    |     |    |     |    |     |    |     | 1     |
| .76- 3.50      | 14 | 9   | 13 | 11  | 10 | 5   | 11 | 6   | 9  | 1   | 6  | 9   | 9  | 7   | 9  | 4   | 133   |
| 3.51- 7.50     | 22 | 8   | 9  | 12  | 5  | 5   | 12 | 8   | 11 | 6   | 15 | 22  | 9  | 11  | 8  | 18  | 181   |
| 7.51-12.50     | 10 | 3   | 1  | 2   | 3  | 2   | 7  | 12  | 17 | 11  | 25 | 13  | 22 | 1   | 7  | 9   | 145   |
| 12.51-18.50    | 1  | 0   | 0  | 0   | 0  | 0   | 2  | 5   | 1  | 2   | 7  | 3   | 0  | 2   | 4  | 1   | 28    |
| 18.51-24.00    | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 2  | 2   | 0  | 0   | 4     |
| >24.00         | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0     |
| TOTAL          | 47 | 20  | 23 | 25  | 18 | 12  | 32 | 31  | 38 | 20  | 53 | 47  | 42 | 23  | 28 | 32  | 492   |

NUS CORPORATION

ATMOSPHERIC SCIENCES DEPARTMENT

PAGE 6

PROGRAM: JFD VERSION: PC-1.0

BEAVER VALLEY JFD - ELEVATED BATCH RELEASES

SITE IDENTIFIER: DLBV2

DATA PERIOD EXAMINED: 7/ 1/89 - 9/30/89

\*\*\* 3RD QTR 1989 \*\*\*

STABILITY BASED ON: DELTA T BETWEEN 500.0 AND 35.0 FEET

WIND MEASURED AT: 500.0 FEET

WIND THRESHOLD AT: .75 MPH

TOTAL NUMBER OF OBSERVATIONS: 492

TOTAL NUMBER OF VALID OBSERVATIONS: 492

TOTAL NUMBER OF MISSING OBSERVATIONS: 0

PERCENT DATA RECOVERY FOR THIS PERIOD: 100.0 %

MEAN WIND SPEED FOR THIS PERIOD: 6.4 MPH

TOTAL NUMBER OF OBSERVATIONS WITH BACKUP DATA: 0

PERCENTAGE OCCURRENCE OF STABILITY CLASSES

| A   | B   | C    | D     | E     | F     | G   |
|-----|-----|------|-------|-------|-------|-----|
| .00 | .41 | 3.25 | 51.22 | 33.13 | 11.99 | .00 |

DISTRIBUTION OF WIND DIRECTION VS STABILITY

|       | N  | NNE | NE | ENE | E  | ESE | SE | SSE | S  | SSW | SW | WSW | W  | WNW | NW | NNW | CALM |
|-------|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|------|
| A     | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0    |
| B     | 1  | 0   | 0  | 0   | 0  | 0   | 0  | 1   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0    |
| C     | 1  | 1   | 0  | 1   | 1  | 0   | 1  | 3   | 6  | 1   | 0  | 0   | 0  | 1   | 0  | 0   | 0    |
| D     | 20 | 8   | 13 | 4   | 7  | 6   | 7  | 11  | 23 | 7   | 30 | 30  | 25 | 13  | 22 | 26  | 0    |
| E     | 16 | 7   | 7  | 13  | 8  | 4   | 20 | 13  | 6  | 9   | 15 | 15  | 16 | 5   | 5  | 3   | 1    |
| F     | 9  | 4   | 3  | 7   | 2  | 2   | 4  | 3   | 3  | 3   | 8  | 2   | 1  | 4   | 1  | 3   | 0    |
| G     | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0    |
| TOTAL | 47 | 20  | 23 | 25  | 18 | 12  | 32 | 31  | 38 | 20  | 53 | 47  | 42 | 23  | 28 | 32  | 1    |



Beaver Valley  
Listings of Meteorological Data  
for  
Periods of Ground-Level Gaseous Effluent Releases

Third Quarter 1989

PROGRAM: LIST

VERSION: PC-1.0

NOTES ON THE THIRD QUARTER 1989

-----35 FT-----150 FT-----500 Ft-----

| VR | MO | DY | HR | WIND<br>SPEED<br>(MPH) | WIND<br>DIR<br>(DEG) | STD<br>DEV<br>(DEG) | SC | WIND<br>SPEED<br>(MPH) | WIND<br>DIR<br>(DEG) | STD<br>DEV<br>(DEG) | SC | WIND<br>SPEED<br>(MPH) | WIND<br>DIR<br>(DEG) | STD<br>DEV<br>(DEG) | SC | AMB.<br>TEMP<br>3SF<br>(F) | DEW<br>POINT<br>3SF<br>(F) | DELTA T<br>150-35<br>(F) | DELTA T<br>500-35<br>(F) | RAIN!<br>FALL<br>SC(IN) |
|----|----|----|----|------------------------|----------------------|---------------------|----|------------------------|----------------------|---------------------|----|------------------------|----------------------|---------------------|----|----------------------------|----------------------------|--------------------------|--------------------------|-------------------------|
| 89 | 7  | 8  | 13 | 4.8                    | 261.                 | 99.9                | -  | 5.6                    | 268.                 | 99.9                | -  | 5.4                    | 293.                 | 99.9                | -  | 78.9                       | 52.5                       | -1.4 A                   | -3.7 D                   | .00                     |
| 89 | 7  | 8  | 14 | 4.5                    | 312.                 | 99.9                | -  | 6.9                    | 299.                 | 99.9                | -  | 7.5                    | 286.                 | 99.9                | -  | 80.0                       | 53.1                       | -1.8 A                   | -4.0 C                   | .00                     |
| 89 | 7  | 8  | 15 | 3.0                    | 300.                 | 99.9                | -  | 3.5                    | 305.                 | 99.9                | -  | 4.5                    | 296.                 | 99.9                | -  | 80.2                       | 54.2                       | -1.5 A                   | -3.7 D                   | .00                     |
| 89 | 7  | 8  | 16 | 4.9                    | 263.                 | 99.9                | -  | 7.5                    | 274.                 | 99.9                | -  | 9.1                    | 275.                 | 99.9                | -  | 80.5                       | 55.7                       | -1.3 A                   | -3.3 D                   | .00                     |
| 89 | 7  | 8  | 17 | 3.0                    | 351.                 | 99.9                | -  | 4.9                    | 2.                   | 99.9                | -  | 5.8                    | 338.                 | 99.9                | -  | 80.9                       | 58.5                       | -1.8 A                   | -3.9 C                   | .00                     |
| 89 | 7  | 12 | 1  | 1.1                    | 72.                  | 99.9                | -  | 3.2                    | 153.                 | 99.9                | -  | 2.8                    | 243.                 | 99.9                | -  | 70.0                       | 63.0                       | 1.2 F                    | 2.4 E                    | .00                     |
| 89 | 7  | 12 | 2  | 1.4                    | 165.                 | 99.9                | -  | 1.0                    | 306.                 | 99.9                | -  | 2.9                    | 342.                 | 99.9                | -  | 67.8                       | 63.1                       | 1.2 F                    | 3.7 E                    | .00                     |
| 89 | 7  | 12 | 3  | 1.5                    | 120.                 | 99.9                | -  | 2.0                    | 84.                  | 99.9                | -  | 4.4                    | 8.                   | 99.9                | -  | 67.0                       | 63.5                       | .9 E                     | 2.9 E                    | .00                     |
| 89 | 7  | 12 | 4  | 2.6                    | 181.                 | 99.9                | -  | 3.8                    | 242.                 | 99.9                | -  | 4.5                    | 287.                 | 99.9                | -  | 67.0                       | 63.7                       | 1.7 F                    | 2.1 E                    | .00                     |
| 89 | 7  | 12 | 5  | 1.4                    | 133.                 | 99.9                | -  | 2.2                    | 189.                 | 99.9                | -  | 3.7                    | 297.                 | 99.9                | -  | 66.8                       | 63.9                       | 1.5 F                    | 1.5 E                    | .00                     |
| 89 | 9  | 4  | 11 | 4.6                    | 111.                 | 99.9                | -  | 10.3                   | 118.                 | 99.9                | -  | 15.6                   | 129.                 | 99.9                | -  | 69.3                       | 48.2                       | -1.7 A                   | -4.1 C                   | .00                     |
| 89 | 9  | 4  | 12 | 4.7                    | 132.                 | 99.9                | -  | 11.5                   | 138.                 | 99.9                | -  | 16.1                   | 142.                 | 99.9                | -  | 71.9                       | 47.2                       | -2.4 A                   | -5.0 A                   | .00                     |
| 89 | 9  | 4  | 13 | 6.6                    | 183.                 | 99.9                | -  | 13.2                   | 154.                 | 99.9                | -  | 14.4                   | 141.                 | 99.9                | -  | 73.0                       | 48.5                       | -1.9 A                   | -4.3 C                   | .00                     |
| 89 | 9  | 4  | 14 | 5.8                    | 145.                 | 99.9                | -  | 13.0                   | 137.                 | 99.9                | -  | 17.2                   | 138.                 | 99.9                | -  | 74.2                       | 48.9                       | -2.2 A                   | -4.8 B                   | .00                     |
| 89 | 9  | 4  | 15 | 6.3                    | 198.                 | 99.9                | -  | 12.6                   | 156.                 | 99.9                | -  | 15.5                   | 150.                 | 99.9                | -  | 75.2                       | 48.9                       | -2.4 A                   | -4.8 B                   | .00                     |
| 89 | 9  | 4  | 16 | 5.6                    | 170.                 | 99.9                | -  | 12.4                   | 151.                 | 99.9                | -  | 16.5                   | 152.                 | 99.9                | -  | 75.4                       | 48.7                       | -2.0 A                   | -4.5 B                   | .00                     |
| 89 | 9  | 4  | 17 | 4.9                    | 139.                 | 99.9                | -  | 11.3                   | 129.                 | 99.9                | -  | 14.3                   | 135.                 | 99.9                | -  | 73.9                       | 49.6                       | -1.9 A                   | -4.2 C                   | .00                     |
| 89 | 9  | 4  | 18 | 3.9                    | 137.                 | 99.9                | -  | 11.6                   | 138.                 | 99.9                | -  | 15.8                   | 141.                 | 99.9                | -  | 73.9                       | 51.0                       | -1.5 A                   | -3.6 D                   | .00                     |
| 89 | 9  | 4  | 19 | 2.9                    | 131.                 | 99.9                | -  | 7.7                    | 127.                 | 99.9                | -  | 14.3                   | 138.                 | 99.9                | -  | 72.1                       | 50.6                       | -8 D                     | -2.6 D                   | .00                     |
| 89 | 9  | 4  | 20 | 2.1                    | 61.                  | 99.9                | -  | 4.0                    | 100.                 | 99.9                | -  | 13.1                   | 129.                 | 99.9                | -  | 68.6                       | 50.6                       | .0 E                     | -1.0 E                   | .00                     |
| 89 | 9  | 4  | 21 | 1.8                    | 76.                  | 99.9                | -  | 3.5                    | 106.                 | 99.9                | -  | 13.2                   | 136.                 | 99.9                | -  | 66.3                       | 50.5                       | .3 E                     | -6 E                     | .00                     |
| 89 | 9  | 4  | 22 | 2.3                    | 95.                  | 99.9                | -  | 4.6                    | 123.                 | 99.9                | -  | 18.7                   | 141.                 | 99.9                | -  | 65.1                       | 50.3                       | .0 E                     | -5 E                     | .00                     |
| 89 | 9  | 4  | 23 | 2.7                    | 83.                  | 99.9                | -  | 7.2                    | 125.                 | 99.9                | -  | 19.4                   | 147.                 | 99.9                | -  | 64.1                       | 50.6                       | .0 E                     | -5 E                     | .00                     |
| 89 | 9  | 4  | 24 | 2.1                    | 75.                  | 99.9                | -  | 4.7                    | 122.                 | 99.9                | -  | 14.8                   | 150.                 | 99.9                | -  | 63.0                       | 51.2                       | .1 E                     | -5 E                     | .00                     |
| 89 | 9  | 5  | 1  | 2.3                    | 65.                  | 99.9                | -  | 3.8                    | 81.                  | 99.9                | -  | 11.8                   | 153.                 | 99.9                | -  | 61.1                       | 51.7                       | .7 E                     | .2 E                     | .00                     |
| 89 | 9  | 5  | 2  | 2.7                    | 62.                  | 99.9                | -  | 3.5                    | 84.                  | 99.9                | -  | 11.9                   | 153.                 | 99.9                | -  | 58.9                       | 52.4                       | 1.8 F                    | 1.8 E                    | .00                     |
| 89 | 9  | 5  | 3  | 2.6                    | 52.                  | 99.9                | -  | 3.2                    | 81.                  | 99.9                | -  | 10.9                   | 151.                 | 99.9                | -  | 60.1                       | 52.4                       | .2 E                     | .0 E                     | .00                     |
| 89 | 9  | 7  | 13 | 2.5                    | 179.                 | 99.9                | -  | 6.2                    | 171.                 | 99.9                | -  | 10.5                   | 181.                 | 99.9                | -  | 76.7                       | 58.7                       | -1 E                     | -1.8 D                   | .00                     |
| 89 | 9  | 7  | 20 | .9                     | 227.                 | 99.9                | -  | 3.3                    | 171.                 | 99.9                | -  | 11.0                   | 181.                 | 99.9                | -  | 73.7                       | 69.3                       | 1.0 F                    | .6 E                     | .00                     |
| 89 | 9  | 7  | 21 | 1.2                    | 25.                  | 99.9                | -  | 2.4                    | 191.                 | 99.9                | -  | 12.1                   | 178.                 | 99.9                | -  | 73.4                       | 69.0                       | .6 E                     | .4 E                     | .00                     |
| 89 | 9  | 7  | 22 | 1.2                    | 312.                 | 99.9                | -  | 3.5                    | 168.                 | 99.9                | -  | 15.9                   | 187.                 | 99.9                | -  | 72.3                       | 69.0                       | 1.1 F                    | 2.3 E                    | .00                     |
| 89 | 9  | 7  | 23 | 3.1                    | 210.                 | 99.9                | -  | 6.4                    | 190.                 | 99.9                | -  | 15.4                   | 190.                 | 99.9                | -  | 72.7                       | 69.4                       | .1 E                     | .1 E                     | .03                     |
| 89 | 9  | 7  | 24 | 2.6                    | 241.                 | 99.9                | -  | 5.5                    | 213.                 | 99.9                | -  | 9.1                    | 215.                 | 99.9                | -  | 68.4                       | 67.8                       | -1 E                     | -1.2 E                   | .25                     |
| 89 | 9  | 8  | 1  | 1.6                    | 138.                 | 99.9                | -  | 2.2                    | 168.                 | 99.9                | -  | 3.4                    | 230.                 | 99.9                | -  | 67.7                       | 67.6                       | .2 E                     | -.4 E                    | .14                     |
| 89 | 9  | 8  | 2  | 1.4                    | 231.                 | 99.9                | -  | 2.2                    | 175.                 | 99.9                | -  | 5.9                    | 185.                 | 99.9                | -  | 67.6                       | 67.6                       | .0 E                     | .0 E                     | .14                     |
| 89 | 9  | 8  | 3  | 1.6                    | 55.                  | 99.9                | -  | 1.1                    | 33.                  | 99.9                | -  | 11.6                   | 235.                 | 99.9                | -  | 67.0                       | 67.0                       | .8 E                     | 2.2 E                    | .00                     |
| 89 | 9  | 8  | 4  | 1.7                    | 38.                  | 99.9                | -  | 3.0                    | 30.                  | 99.9                | -  | 7.7                    | 218.                 | 99.9                | -  | 67.2                       | 67.2                       | 1.2 F                    | 1.4 E                    | .00                     |
| 89 | 9  | 8  | 5  | 1.9                    | 163.                 | 99.9                | -  | 2.3                    | 186.                 | 99.9                | -  | 6.7                    | 237.                 | 99.9                | -  | 67.3                       | 67.3                       | 1.8 F                    | 1.3 E                    | .00                     |
| 89 | 9  | 8  | 6  | 1.2                    | 206.                 | 99.9                | -  | 1.7                    | 270.                 | 99.9                | -  | 7.2                    | 242.                 | 99.9                | -  | 67.4                       | 67.4                       | 1.5 F                    | .9 E                     | .00                     |
| 89 | 9  | 8  | 7  | 1.2                    | 161.                 | 99.9                | -  | 1.5                    | 230.                 | 99.9                | -  | 8.6                    | 245.                 | 99.9                | -  | 67.9                       | 67.9                       | 1.2 F                    | .6 E                     | .00                     |

Beaver Valley  
Listings of Meteorological Data  
for  
Periods of Elevated Gaseous Effluent Releases

Third Quarter 1989



PROGRAM: LIST

LISTING FOR BEAVER VALLEY HOURLY METEOROLOGICAL DATA 500-FT LEVEL BATCH RELEASES FOR THE THIRD QUARTER 1989

75 FT-----150 FT-----500 FT-----

| YR | MO | DY | HR | WIND<br>SPEED<br>(MPH) | WIND<br>DIR<br>(DEG) | STD<br>DEV<br>(DEG) | SC | WIND<br>SPEED<br>(MPH) | WIND<br>DIR<br>(DEG) | STD<br>DEV<br>(DEG) | SC | WIND<br>SPEED<br>(MPH) | WIND<br>DIR<br>(DEG) | STD<br>DEV<br>(DEG) | SC | AMB.<br>TEMP<br>3SF<br>(F) | DEW<br>POINT<br>3SF<br>(F) | DELTA T<br>150-35<br>(F) | DELTA T<br>500-35<br>(F) | RAIN<br>FALL<br>SC(IN) |
|----|----|----|----|------------------------|----------------------|---------------------|----|------------------------|----------------------|---------------------|----|------------------------|----------------------|---------------------|----|----------------------------|----------------------------|--------------------------|--------------------------|------------------------|
| 89 | 7  | 7  | 20 | 3.2                    | 264.                 | 99.9                | -  | 7.0                    | 268.                 | 99.9                | -  | 12.4                   | 259.                 | 99.9                | -  | 82.0                       | 66.3                       | .0 E                     | -5 E                     | .00                    |
| 89 | 7  | 7  | 21 | 1.5                    | 239.                 | 99.9                | -  | 4.5                    | 279.                 | 99.9                | -  | 11.6                   | 276.                 | 99.9                | -  | 77.9                       | 68.9                       | 1.0 F                    | 2.3 E                    | .00                    |
| 89 | 7  | 7  | 22 | 1.8                    | 309.                 | 99.9                | -  | 5.3                    | 360.                 | 99.9                | -  | 12.9                   | 360.                 | 99.9                | -  | 77.6                       | 67.3                       | .7 E                     | -3.3 E                   | .00                    |
| 89 | 7  | 7  | 23 | 2.4                    | 247.                 | 99.9                | -  | 3.7                    | 320.                 | 99.9                | -  | 10.0                   | 348.                 | 99.9                | -  | 76.5                       | 66.6                       | -1 E                     | -1.7 D                   | .00                    |
| 89 | 7  | 7  | 24 | 2.4                    | 309.                 | 99.9                | -  | 5.4                    | 315.                 | 99.9                | -  | 7.8                    | 326.                 | 99.9                | -  | 75.3                       | 66.5                       | -1 E                     | -1.9 D                   | .00                    |
| 89 | 7  | 8  | 1  | 3.8                    | 280.                 | 99.9                | -  | 6.9                    | 303.                 | 99.9                | -  | 12.1                   | 326.                 | 99.9                | -  | 72.8                       | 61.3                       | -3 E                     | -1.8 D                   | .00                    |
| 89 | 7  | 8  | 2  | 3.3                    | 298.                 | 99.9                | -  | 7.2                    | 306.                 | 99.9                | -  | 12.6                   | 337.                 | 99.9                | -  | 70.2                       | 61.2                       | -3 E                     | -1.7 D                   | .00                    |
| 89 | 7  | 8  | 3  | 2.7                    | 222.                 | 99.9                | -  | 3.1                    | 19.                  | 99.9                | -  | 6.5                    | 19.                  | 99.9                | -  | 68.1                       | 59.9                       | .3 E                     | -7 E                     | .00                    |
| 89 | 7  | 8  | 4  | 1.2                    | 152.                 | 99.9                | -  | 1.4                    | 77.                  | 99.9                | -  | 7.8                    | 25.                  | 99.9                | -  | 63.5                       | 59.7                       | 2.9 G                    | 3.1 E                    | .00                    |
| 89 | 7  | 8  | 5  | 1.7                    | 148.                 | 99.9                | -  | 2.2                    | 256.                 | 99.9                | -  | 5.9                    | 348.                 | 99.9                | -  | 61.1                       | 59.2                       | 3.1 G                    | 3.7 E                    | .00                    |
| 89 | 7  | 8  | 6  | 1.3                    | 114.                 | 99.9                | -  | 1.6                    | 229.                 | 99.9                | -  | 5.0                    | 352.                 | 99.9                | -  | 59.0                       | 58.6                       | 2.2 F                    | 4.3 F                    | .00                    |
| 89 | 7  | 8  | 7  | 1.5                    | 160.                 | 99.9                | -  | 2.1                    | 229.                 | 99.9                | -  | 5.5                    | 19.                  | 99.9                | -  | 59.8                       | 59.1                       | 1.2 F                    | 3.1 E                    | .00                    |
| 89 | 7  | 9  | 4  | .7                     | 116.                 | 99.9                | -  | 2.0                    | 23.                  | 99.9                | -  | 3.7                    | 223.                 | 99.9                | -  | 61.2                       | 60.8                       | 1.5 F                    | 5.3 F                    | .00                    |
| 89 | 7  | 9  | 5  | .7                     | 134.                 | 99.9                | -  | 1.4                    | 233.                 | 99.9                | -  | 6.5                    | 236.                 | 99.9                | -  | 60.8                       | 60.9                       | 1.8 F                    | 6.1 F                    | .00                    |
| 89 | 7  | 9  | 6  | 1.2                    | 117.                 | 99.9                | -  | 1.8                    | 35.                  | 99.9                | -  | 4.8                    | 231.                 | 99.9                | -  | 60.9                       | 60.8                       | 1.2 F                    | 5.6 F                    | .00                    |
| 89 | 7  | 9  | 7  | .9                     | 118.                 | 99.9                | -  | .9                     | 70.                  | 99.9                | -  | 2.5                    | 242.                 | 99.9                | -  | 62.7                       | 62.7                       | .4 E                     | 3.6 E                    | .00                    |
| 89 | 7  | 9  | 8  | 1.5                    | 325.                 | 99.9                | -  | 1.9                    | 67.                  | 99.9                | -  | 3.3                    | 268.                 | 99.9                | -  | 65.5                       | 64.1                       | -2 E                     | 2.2 E                    | .00                    |
| 89 | 7  | 9  | 9  | 2.0                    | 55.                  | 99.9                | -  | 2.5                    | 73.                  | 99.9                | -  | 5.5                    | 253.                 | 99.9                | -  | 66.9                       | 66.7                       | .2 E                     | 1.0 E                    | .01                    |
| 89 | 7  | 9  | 18 | 5.2                    | 244.                 | 99.9                | -  | 6.3                    | 244.                 | 99.9                | -  | 8.0                    | 226.                 | 99.9                | -  | 80.4                       | 70.7                       | -8 D                     | -2.8 D                   | .00                    |
| 89 | 7  | 9  | 19 | 5.1                    | 216.                 | 99.9                | -  | 7.1                    | 230.                 | 99.9                | -  | 10.7                   | 227.                 | 99.9                | -  | 80.8                       | 69.3                       | -6 D                     | -2.8 D                   | .00                    |
| 89 | 7  | 10 | 5  | 1.4                    | 118.                 | 99.9                | -  | 3.0                    | 255.                 | 99.9                | -  | 5.8                    | 244.                 | 99.9                | -  | 70.7                       | 69.7                       | .8 E                     | -1 E                     | .00                    |
| 89 | 7  | 10 | 6  | 1.0                    | 144.                 | 99.9                | -  | 3.0                    | 249.                 | 99.9                | -  | 7.8                    | 231.                 | 99.9                | -  | 70.1                       | 70.1                       | .6 E                     | -5 E                     | .01                    |
| 89 | 7  | 10 | 12 | 9.8                    | 238.                 | 99.9                | -  | 13.4                   | 253.                 | 99.9                | -  | 16.7                   | 242.                 | 99.9                | -  | 84.4                       | 73.9                       | -1.1 B                   | -3.3 D                   | .00                    |
| 89 | 7  | 10 | 13 | 8.6                    | 246.                 | 99.9                | -  | 13.4                   | 260.                 | 99.9                | -  | 17.1                   | 253.                 | 99.9                | -  | 85.1                       | 73.8                       | -1.0 C                   | -2.8 D                   | .00                    |
| 89 | 7  | 10 | 14 | 9.8                    | 239.                 | 99.9                | -  | 13.5                   | 252.                 | 99.9                | -  | 17.1                   | 248.                 | 99.9                | -  | 87.1                       | 74.3                       | -1.2 A                   | -3.2 D                   | .00                    |
| 89 | 7  | 10 | 15 | 10.5                   | 251.                 | 99.9                | -  | 16.1                   | 264.                 | 99.9                | -  | 21.3                   | 259.                 | 99.9                | -  | 88.1                       | 73.5                       | -1.1 B                   | -2.8 D                   | .00                    |
| 89 | 7  | 10 | 16 | 10.0                   | 247.                 | 99.9                | -  | 15.8                   | 268.                 | 99.9                | -  | 21.1                   | 264.                 | 99.9                | -  | 88.8                       | 73.5                       | -1.0 C                   | -2.7 D                   | .00                    |
| 89 | 7  | 12 | 5  | 1.4                    | 133.                 | 99.9                | -  | 2.2                    | 189.                 | 99.9                | -  | 3.7                    | 297.                 | 99.9                | -  | 66.8                       | 63.9                       | 1.5 F                    | 1.5 E                    | .00                    |
| 89 | 7  | 12 | 6  | .8                     | 138.                 | 99.9                | -  | 1.2                    | 43.                  | 99.9                | -  | .7                     | 34.                  | 99.9                | -  | 66.2                       | 64.1                       | .9 E                     | 1.5 E                    | .00                    |
| 89 | 7  | 12 | 7  | 1.4                    | 159.                 | 99.9                | -  | 1.0                    | 191.                 | 99.9                | -  | 2.4                    | 268.                 | 99.9                | -  | 66.3                       | 64.5                       | .8 E                     | .7 E                     | .00                    |
| 89 | 7  | 12 | 8  | 1.2                    | 205.                 | 99.9                | -  | 1.8                    | 255.                 | 99.9                | -  | 2.5                    | 312.                 | 99.9                | -  | 68.7                       | 65.1                       | -5 D                     | -9 E                     | .00                    |
| 89 | 7  | 12 | 9  | 1.4                    | 231.                 | 99.9                | -  | 1.3                    | 212.                 | 99.9                | -  | .9                     | 214.                 | 99.9                | -  | 71.5                       | 65.3                       | -5 D                     | -2.0 D                   | .00                    |
| 89 | 7  | 12 | 10 | 1.3                    | 83.                  | 99.9                | -  | 1.4                    | 110.                 | 99.9                | -  | 1.4                    | 148.                 | 99.9                | -  | 73.3                       | 65.4                       | -6 D                     | -2.8 D                   | .00                    |
| 89 | 7  | 12 | 11 | 1.5                    | 342.                 | 99.9                | -  | 2.1                    | 295.                 | 99.9                | -  | 1.7                    | 241.                 | 99.9                | -  | 73.2                       | 66.7                       | -3 E                     | -2.1 D                   | .00                    |
| 89 | 7  | 12 | 12 | 2.4                    | 204.                 | 99.9                | -  | 2.3                    | 216.                 | 99.9                | -  | 2.3                    | 186.                 | 99.9                | -  | 75.5                       | 65.8                       | -5 D                     | -2.5 D                   | .00                    |
| 89 | 7  | 12 | 13 | 2.7                    | 278.                 | 99.9                | -  | 3.2                    | 276.                 | 99.9                | -  | 3.8                    | 264.                 | 99.9                | -  | 76.7                       | 65.1                       | -7 D                     | -2.7 D                   | .00                    |
| 89 | 7  | 12 | 14 | 2.3                    | 302.                 | 99.9                | -  | 2.5                    | 316.                 | 99.9                | -  | 2.4                    | 334.                 | 99.9                | -  | 78.6                       | 64.1                       | -1.0 C                   | -3.2 D                   | .00                    |
| 89 | 7  | 12 | 15 | 2.4                    | 314.                 | 99.9                | -  | 2.4                    | 328.                 | 99.9                | -  | 2.4                    | 358.                 | 99.9                | -  | 78.9                       | 64.1                       | -5 D                     | -2.8 D                   | .00                    |
| 89 | 7  | 12 | 16 | 2.6                    | 352.                 | 99.9                | -  | 3.9                    | 355.                 | 99.9                | -  | 4.0                    | 345.                 | 99.9                | -  | 79.6                       | 63.8                       | -1.1 B                   | -3.1 D                   | .00                    |
| 89 | 7  | 19 | 2  | .9                     | 50.                  | 99.9                | -  | 4.5                    | 47.                  | 99.9                | -  | 6.2                    | 137.                 | 99.9                | -  | 63.6                       | 63.4                       | 3.1 G                    | 4.8 F                    | .00                    |
| 89 | 7  | 19 | 3  | 1.5                    | 98.                  | 99.9                | -  | 2.6                    | 36.                  | 99.9                | -  | 6.7                    | 134.                 | 99.9                | -  | 64.0                       | 63.6                       | 2.3 F                    | 2.9 E                    | .00                    |
| 89 | 7  | 19 | 4  | 1.2                    | 113.                 | 99.9                | -  | 4.0                    | 44.                  | 99.9                | -  | 5.8                    | 139.                 | 99.9                | -  | 63.4                       | 63.4                       | 1.9 F                    | 3.3 E                    | .00                    |
| 89 | 7  | 19 | 5  | .8                     | 105.                 | 99.9                | -  | 4.3                    | 72.                  | 99.9                | -  | 4.2                    | 127.                 | 99.9                | -  | 63.7                       | 63.4                       | .4 E                     | 2.2 E                    | .00                    |
| 89 | 7  | 19 | 6  | 1.3                    | 72.                  | 99.9                | -  | 4.3                    | 60.                  | 99.9                | -  | 4.2                    | 144.                 | 99.9                | -  | 63.9                       | 63.6                       | 1.0 F                    | 2.2 E                    | .00                    |
| 89 | 7  | 19 | 7  | 1.5                    | 54.                  | 99.9                | -  | 2.6                    | 94.                  | 99.9                | -  | 11.1                   | 133.                 | 99.9                | -  | 65.4                       | 64.7                       | .1 E                     | .3 E                     | .00                    |
| 89 | 7  | 19 | 8  | 1.3                    | 66.                  | 99.9                | -  | 2.9                    | 88.                  | 99.9                | -  | 5.4                    | 162.                 | 99.9                | -  | 67.9                       | 65.3                       | -3 E                     | -1.1 E                   | .00                    |
| 89 | 7  | 19 | 9  | 3.0                    | 213.                 | 99.9                | -  | 3.4                    | 174.                 | 99.9                | -  | 5.8                    | 171.                 | 99.9                | -  | 71.9                       | 65.9                       | -8 D                     | -3.0 D                   | .00                    |
| 89 | 7  | 19 | 10 | 2.4                    | 202.                 | 99.9                | -  | 2.6                    | 179.                 | 99.9                | -  | 5.0                    | 181.                 | 99.9                | -  | 74.5                       | 67.1                       | .9 D                     | -3.2 D                   | .00                    |

PROGRAM: LIST VERSION: PC-1.0

## LISTING FOR BEAVER VALLEY HOURLY METEOROLOGICAL DATA 500-FT LEVEL BATCH RELEASES FOR THE THIRD QUARTER 1989

| -----35 FT-----150 FT-----500 FT----- |    |     |    |                        |                      |                     |                        |                      |                     |                        |                      |                     |                             |                            |                          |                          |                        |
|---------------------------------------|----|-----|----|------------------------|----------------------|---------------------|------------------------|----------------------|---------------------|------------------------|----------------------|---------------------|-----------------------------|----------------------------|--------------------------|--------------------------|------------------------|
| YR                                    | MO | DAY | HR | WIND<br>SPEED<br>(MPH) | WIND<br>DIR<br>(DEG) | STD<br>DEV<br>(DEG) | WIND<br>SPEED<br>(MPH) | WIND<br>DIR<br>(DEG) | STD<br>DEV<br>(DEG) | WIND<br>SPEED<br>(MPH) | WIND<br>DIR<br>(DEG) | STD<br>DEV<br>(DEG) | AMBR.<br>TEMP<br>35F<br>(F) | DEW<br>POINT<br>35F<br>(F) | DELTA T<br>150-35<br>(F) | DELTA T<br>500-35<br>(F) | RAIN<br>FALL<br>SC(IN) |
| 89                                    | 7  | 19  | 11 | 3.0                    | 160.                 | 99.9                | 5.4                    | 165.                 | 99.9                | 7.0                    | 172.                 | 99.9                | 76.1                        | 66.3                       | -1.3 A                   | -3.5 D                   | .00                    |
| 89                                    | 7  | 19  | 12 | 2.6                    | 160.                 | 99.9                | 5.0                    | 172.                 | 99.9                | 7.5                    | 175.                 | 99.9                | 75.8                        | 65.4                       | -8.0 D                   | -2.8 D                   | .00                    |
| 89                                    | 7  | 19  | 13 | 2.0                    | 146.                 | 99.9                | 4.1                    | 163.                 | 99.9                | 7.9                    | 177.                 | 99.9                | 75.3                        | 66.8                       | -4.0 D                   | -2.2 D                   | .00                    |
| 89                                    | 7  | 19  | 14 | 1.3                    | 65.                  | 99.9                | 7.3                    | 139.                 | 99.9                | 14.0                   | 157.                 | 99.9                | 69.8                        | 59.8                       | -2.0 E                   | -2.2 D                   | .07                    |
| 89                                    | 7  | 19  | 15 | 2.3                    | 89.                  | 99.9                | 3.9                    | 123.                 | 99.9                | 8.2                    | 144.                 | 99.9                | 71.8                        | 70.1                       | -6.0 D                   | -3.3 D                   | .00                    |
| 89                                    | 7  | 19  | 16 | 1.9                    | 124.                 | 99.9                | 5.4                    | 128.                 | 99.9                | 9.5                    | 152.                 | 99.9                | 71.6                        | 70.0                       | -3.0 E                   | -2.3 D                   | .00                    |
| 89                                    | 7  | 19  | 17 | 2.1                    | 92.                  | 99.9                | 6.1                    | 131.                 | 99.9                | 9.4                    | 149.                 | 99.9                | 72.4                        | 70.3                       | -5.0 D                   | -2.6 D                   | .00                    |
| 89                                    | 7  | 19  | 18 | 1.8                    | 97.                  | 99.9                | 3.3                    | 107.                 | 99.9                | 7.0                    | 132.                 | 99.9                | 72.7                        | 70.8                       | -5.0 D                   | -2.9 D                   | .00                    |
| 89                                    | 7  | 19  | 19 | 2.9                    | 100.                 | 99.9                | 7.7                    | 129.                 | 99.9                | 13.4                   | 140.                 | 99.9                | 72.7                        | 70.2                       | -5.0 D                   | -2.3 D                   | .00                    |
| 89                                    | 7  | 19  | 20 | 2.8                    | 108.                 | 99.9                | 7.4                    | 138.                 | 99.9                | 14.5                   | 144.                 | 99.9                | 71.2                        | 68.1                       | -2.0 E                   | -1.8 D                   | .00                    |
| 89                                    | 7  | 19  | 21 | 1.3                    | 119.                 | 99.9                | 2.9                    | 158.                 | 99.9                | 7.9                    | 155.                 | 99.9                | 69.4                        | 67.8                       | -0.0 E                   | -1.4 D                   | .00                    |
| 89                                    | 7  | 19  | 22 | 1.1                    | 60.                  | 99.9                | 2.3                    | 129.                 | 99.9                | 6.9                    | 155.                 | 99.9                | 68.3                        | 68.3                       | -3.0 E                   | -9.0 E                   | .00                    |
| 89                                    | 7  | 19  | 23 | 1.2                    | 76.                  | 99.9                | 5.1                    | 69.                  | 99.9                | 7.4                    | 107.                 | 99.9                | 68.0                        | 68.0                       | -1.0 E                   | -1.0 E                   | .02                    |
| 89                                    | 7  | 19  | 24 | 1.5                    | 74.                  | 99.9                | 4.2                    | 60.                  | 99.9                | 6.6                    | 99.                  | 99.9                | 67.9                        | 67.9                       | -0.0 E                   | -1.0 E                   | .02                    |
| 89                                    | 7  | 20  | 1  | 1.8                    | 108.                 | 99.9                | 5.0                    | 70.                  | 99.9                | 8.2                    | 67.                  | 99.9                | 67.8                        | 67.8                       | -2.0 E                   | -8.0 E                   | .00                    |
| 89                                    | 7  | 20  | 2  | 1.2                    | 114.                 | 99.9                | 4.7                    | 74.                  | 99.9                | 8.8                    | 89.                  | 99.9                | 67.7                        | 67.7                       | -1.0 E                   | -1.0 E                   | .00                    |
| 89                                    | 7  | 20  | 3  | 1.6                    | 73.                  | 99.9                | 4.5                    | 74.                  | 99.9                | 6.5                    | 98.                  | 99.9                | 68.1                        | 68.1                       | -0.0 E                   | -1.6 D                   | .00                    |
| 89                                    | 7  | 20  | 4  | 1.2                    | 125.                 | 99.9                | 4.8                    | 69.                  | 99.9                | 6.5                    | 104.                 | 99.9                | 67.4                        | 67.4                       | -3.0 E                   | -9.0 E                   | .00                    |
| 89                                    | 7  | 20  | 5  | 1.2                    | 103.                 | 99.9                | 2.8                    | 82.                  | 99.9                | 5.4                    | 125.                 | 99.9                | 67.3                        | 67.3                       | -1.0 E                   | -1.0 E                   | .00                    |
| 89                                    | 7  | 20  | 6  | .8                     | 94.                  | 99.9                | 2.8                    | 64.                  | 99.9                | 3.2                    | 100.                 | 99.9                | 67.1                        | 67.1                       | -5.0 E                   | -7.0 E                   | .00                    |
| 89                                    | 7  | 20  | 7  | 1.3                    | 86.                  | 99.9                | 2.9                    | 75.                  | 99.9                | 3.2                    | 151.                 | 99.9                | 67.3                        | 67.3                       | -1.0 E                   | -1.0 E                   | .02                    |
| 89                                    | 7  | 20  | 8  | 1.2                    | 101.                 | 99.9                | 1.7                    | 112.                 | 99.9                | 3.6                    | 159.                 | 99.9                | 68.0                        | 68.0                       | -0.0 E                   | -1.6 D                   | .00                    |
| 89                                    | 7  | 20  | 9  | 2.7                    | 128.                 | 99.9                | 4.0                    | 254.                 | 99.9                | 8.0                    | 234.                 | 99.9                | 70.3                        | 68.3                       | -4.0 D                   | -2.1 D                   | .00                    |
| 89                                    | 7  | 20  | 10 | 3.4                    | 243.                 | 99.9                | 4.6                    | 262.                 | 99.9                | 6.5                    | 248.                 | 99.9                | 71.7                        | 68.5                       | -7.0 D                   | -2.7 D                   | .00                    |
| 89                                    | 7  | 20  | 11 | 3.0                    | 187.                 | 99.9                | 6.5                    | 186.                 | 99.9                | 7.5                    | 206.                 | 99.9                | 74.3                        | 68.7                       | -1.0 C                   | -3.0 D                   | .00                    |
| 89                                    | 7  | 20  | 12 | 4.1                    | 201.                 | 99.9                | 7.3                    | 178.                 | 99.9                | 8.5                    | 185.                 | 99.9                | 75.3                        | 69.2                       | -1.1 B                   | -3.3 D                   | .00                    |
| 89                                    | 7  | 20  | 13 | 6.3                    | 198.                 | 99.9                | 10.6                   | 185.                 | 99.9                | 11.4                   | 182.                 | 99.9                | 78.1                        | 67.7                       | -1.8 A                   | -4.0 C                   | .00                    |
| 89                                    | 7  | 20  | 14 | 4.0                    | 185.                 | 99.9                | 8.2                    | 184.                 | 99.9                | 10.1                   | 190.                 | 99.9                | 79.0                        | 67.2                       | -1.2 A                   | -3.4 D                   | .00                    |
| 89                                    | 7  | 20  | 15 | 3.8                    | 211.                 | 99.9                | 6.4                    | 187.                 | 99.9                | 8.8                    | 195.                 | 99.9                | 80.8                        | 67.3                       | -1.3 A                   | -3.7 D                   | .00                    |
| 89                                    | 7  | 20  | 16 | 5.0                    | 228.                 | 99.9                | 6.4                    | 229.                 | 99.9                | 7.1                    | 216.                 | 99.9                | 81.6                        | 66.0                       | -1.0 C                   | -3.4 D                   | .00                    |
| 89                                    | 7  | 20  | 17 | 4.9                    | 200.                 | 99.9                | 7.9                    | 197.                 | 99.9                | 8.8                    | 197.                 | 99.9                | 81.6                        | 65.9                       | -1.1 B                   | -3.3 D                   | .00                    |
| 89                                    | 7  | 20  | 18 | 3.0                    | 191.                 | 99.9                | 5.1                    | 187.                 | 99.9                | 6.9                    | 190.                 | 99.9                | 81.2                        | 66.2                       | -6.0 D                   | -2.7 D                   | .00                    |
| 89                                    | 7  | 20  | 19 | 3.3                    | 222.                 | 99.9                | 4.5                    | 224.                 | 99.9                | 6.0                    | 228.                 | 99.9                | 80.5                        | 66.8                       | -5.0 D                   | -2.4 D                   | .00                    |
| 89                                    | 7  | 20  | 20 | 1.7                    | 178.                 | 99.9                | 5.1                    | 186.                 | 99.9                | 8.7                    | 213.                 | 99.9                | 76.1                        | 70.2                       | 1.4 F                    | 9.0 E                    | .00                    |
| 89                                    | 7  | 20  | 21 | 1.6                    | 142.                 | 99.9                | 3.2                    | 194.                 | 99.9                | 8.8                    | 213.                 | 99.9                | 73.1                        | 69.2                       | 1.9 E                    | 2.6 E                    | .00                    |
| 89                                    | 7  | 20  | 22 | 1.2                    | 159.                 | 99.9                | 1.6                    | 42.                  | 99.9                | 2.5                    | 158.                 | 99.9                | 70.3                        | 68.8                       | 1.6 F                    | 4.2 F                    | .00                    |
| 89                                    | 7  | 20  | 23 | 1.0                    | 129.                 | 99.9                | .9                     | 186.                 | 99.9                | 1.3                    | 225.                 | 99.9                | 68.5                        | 68.1                       | 2.5 F                    | 4.9 F                    | .00                    |
| 89                                    | 7  | 20  | 24 | 1.3                    | 145.                 | 99.9                | 2.1                    | 52.                  | 99.9                | 1.7                    | 176.                 | 99.9                | 66.8                        | 66.8                       | 2.2 F                    | 5.5 F                    | .00                    |
| 89                                    | 7  | 21  | 1  | 1.0                    | 148.                 | 99.9                | 2.7                    | 206.                 | 99.9                | 1.2                    | 265.                 | 99.9                | 65.7                        | 65.7                       | 2.5 F                    | 3.9 F                    | .00                    |
| 89                                    | 7  | 21  | 2  | .9                     | 137.                 | 99.9                | 2.5                    | 31.                  | 99.9                | 1.2                    | 291.                 | 99.9                | 64.7                        | 64.7                       | 2.0 F                    | 3.2 E                    | .00                    |
| 89                                    | 7  | 21  | 3  | 1.0                    | 129.                 | 99.9                | 2.3                    | 42.                  | 99.9                | 1.7                    | 56.                  | 99.9                | 64.1                        | 64.1                       | 1.7 F                    | 3.7 E                    | .00                    |
| 89                                    | 7  | 21  | 4  | .7                     | 137.                 | 99.9                | 1.6                    | 39.                  | 99.9                | 3.7                    | 73.                  | 99.9                | 64.6                        | 64.6                       | 1.4 F                    | 3.2 E                    | .00                    |
| 89                                    | 7  | 21  | 5  | 1.4                    | 94.                  | 99.9                | 2.2                    | 94.                  | 99.9                | .9                     | 173.                 | 99.9                | 65.0                        | 65.0                       | .8 E                     | 1.9 E                    | .00                    |
| 89                                    | 7  | 21  | 6  | 1.1                    | 116.                 | 99.9                | 2.1                    | 19.                  | 99.9                | 3.9                    | 58.                  | 99.9                | 64.2                        | 64.2                       | 1.6 F                    | 2.8 E                    | .00                    |
| 89                                    | 7  | 21  | 7  | 1.0                    | 113.                 | 99.9                | 2.9                    | 58.                  | 99.9                | 7.1                    | 69.                  | 99.9                | 64.5                        | 64.5                       | 1.3 F                    | 2.2 E                    | .00                    |
| 89                                    | 7  | 21  | 8  | 1.3                    | 359.                 | 99.9                | 2.6                    | 40.                  | 99.9                | 5.2                    | 75.                  | 99.9                | 68.0                        | 68.0                       | -0.0 E                   | -9.0 E                   | .00                    |
| 89                                    | 7  | 21  | 9  | 1.2                    | 14.                  | 99.9                | 2.7                    | 62.                  | 99.9                | 4.8                    | 101.                 | 99.9                | 70.2                        | 68.7                       | -5.0 D                   | -1.8 D                   | .00                    |
| 89                                    | 7  | 21  | 10 | 2.5                    | 47.                  | 99.9                | 5.9                    | 75.                  | 99.9                | 9.6                    | 117.                 | 99.9                | 71.6                        | 69.8                       | -4.0 D                   | -2.1 D                   | .00                    |

## LISTING FOR BEAVER VALLEY HOURLY METEOROLOGICAL DATA 500-FT LEVEL BATCH RELEASES FOR THE THIRD QUARTER 1989

| -----35 FT----- |    | -----150 FT----- |    | -----500 FT-----       |                      |                     |    |                        |                      |                     |    |                        |                      |                     |    |                            |                            |                          |                          |                        |
|-----------------|----|------------------|----|------------------------|----------------------|---------------------|----|------------------------|----------------------|---------------------|----|------------------------|----------------------|---------------------|----|----------------------------|----------------------------|--------------------------|--------------------------|------------------------|
| YR              | MO | DAY              | HR | WIND<br>SPEED<br>(MPH) | WIND<br>DIR<br>(DEG) | STD<br>DEV<br>(DEG) | SC | WIND<br>SPEED<br>(MPH) | WIND<br>DIR<br>(DEG) | STD<br>DEV<br>(DEG) | SC | WIND<br>SPEED<br>(MPH) | WIND<br>DIR<br>(DEG) | STD<br>DEV<br>(DEG) | SC | AMB.<br>TEMP<br>35F<br>(F) | DEW<br>POINT<br>35F<br>(F) | DELTA T<br>150-35<br>(F) | DELTA T<br>500-35<br>(F) | RAIN<br>FALL<br>SC(IN) |
| 89              | 7  | 21               | 11 | 2.8                    | 52.                  | 99.9                | -  | 5.1                    | 77.                  | 99.9                | -  | 6.6                    | 109.                 | 99.9                | -  | 73.8                       | 71.1                       | -9.9                     | -3.1                     | D                      |
| 89              | 7  | 21               | 12 | 2.5                    | 55.                  | 99.9                | -  | 3.1                    | 105.                 | 99.9                | -  | 5.4                    | 159.                 | 99.9                | -  | 78.6                       | 70.9                       | -8.0                     | -3.5                     | D                      |
| 89              | 7  | 21               | 13 | 2.8                    | 129.                 | 99.9                | -  | 4.1                    | 137.                 | 99.9                | -  | 5.8                    | 131.                 | 99.9                | -  | 82.9                       | 70.1                       | -1.6                     | -4.3                     | C                      |
| 89              | 7  | 21               | 14 | 3.0                    | 153.                 | 99.9                | -  | 6.4                    | 156.                 | 99.9                | -  | 7.3                    | 165.                 | 99.9                | -  | 83.3                       | 70.7                       | -1.7                     | -4.1                     | C                      |
| 89              | 7  | 21               | 15 | 4.8                    | 174.                 | 99.9                | -  | 10.2                   | 164.                 | 99.9                | -  | 11.8                   | 175.                 | 99.9                | -  | 85.0                       | 70.6                       | -1.9                     | -4.3                     | C                      |
| 89              | 7  | 21               | 16 | 5.4                    | 189.                 | 99.9                | -  | 9.9                    | 192.                 | 99.9                | -  | 12.4                   | 193.                 | 99.9                | -  | 86.4                       | 67.9                       | -1.6                     | -4.0                     | C                      |
| 89              | 7  | 21               | 17 | 5.9                    | 213.                 | 99.9                | -  | 8.3                    | 208.                 | 99.9                | -  | 10.5                   | 212.                 | 99.9                | -  | 86.7                       | 66.9                       | -1.2                     | -3.6                     | D                      |
| 89              | 7  | 21               | 18 | 3.8                    | 190.                 | 99.9                | -  | 6.8                    | 181.                 | 99.9                | -  | 9.7                    | 189.                 | 99.9                | -  | 85.9                       | 68.3                       | -1.0                     | -3.0                     | D                      |
| 89              | 7  | 21               | 19 | 3.9                    | 190.                 | 99.9                | -  | 8.4                    | 190.                 | 99.9                | -  | 10.5                   | 194.                 | 99.9                | -  | 85.3                       | 68.6                       | -7.0                     | -2.6                     | D                      |
| 89              | 7  | 21               | 20 | 2.6                    | 196.                 | 99.9                | -  | 6.2                    | 176.                 | 99.9                | -  | 9.8                    | 194.                 | 99.9                | -  | 81.9                       | 71.7                       | -6.0                     | -3.3                     | E                      |
| 89              | 7  | 21               | 21 | 1.9                    | 173.                 | 99.9                | -  | 5.7                    | 190.                 | 99.9                | -  | 12.8                   | 195.                 | 99.9                | -  | 76.6                       | 71.6                       | 3.6                      | 3.9                      | F                      |
| 89              | 7  | 21               | 22 | 1.5                    | 138.                 | 99.9                | -  | 4.5                    | 190.                 | 99.9                | -  | 9.2                    | 207.                 | 99.9                | -  | 74.4                       | 70.9                       | 2.0                      | 4.5                      | F                      |
| 89              | 7  | 21               | 23 | 1.2                    | 242.                 | 99.9                | -  | 2.5                    | 352.                 | 99.9                | -  | 5.1                    | 195.                 | 99.9                | -  | 72.5                       | 71.0                       | 1.2                      | 3.3                      | E                      |
| 89              | 7  | 21               | 24 | .8                     | 118.                 | 99.9                | -  | 1.3                    | 32.                  | 99.9                | -  | 3.1                    | 172.                 | 99.9                | -  | 70.8                       | 70.6                       | 1.4                      | 4.4                      | F                      |
| 89              | 7  | 22               | 1  | .0                     | 127.                 | 99.9                | -  | 1.7                    | 36.                  | 99.9                | -  | 3.1                    | 145.                 | 99.9                | -  | 69.6                       | 69.6                       | 1.3                      | 5.1                      | F                      |
| 89              | 7  | 22               | 2  | .9                     | 132.                 | 99.9                | -  | 1.0                    | 272.                 | 99.9                | -  | 1.9                    | 236.                 | 99.9                | -  | 68.7                       | 68.7                       | 1.5                      | 4.6                      | F                      |
| 89              | 7  | 22               | 3  | .7                     | 170.                 | 99.9                | -  | 2.3                    | 25.                  | 99.9                | -  | 1.3                    | 90.                  | 99.9                | -  | 68.3                       | 68.3                       | 1.1                      | 3.9                      | F                      |
| 89              | 7  | 22               | 4  | .6                     | 101.                 | 99.9                | -  | 2.1                    | 59.                  | 99.9                | -  | 2.6                    | 94.                  | 99.9                | -  | 68.0                       | 68.0                       | 1.1                      | 3.2                      | E                      |
| 89              | 7  | 22               | 5  | .8                     | 133.                 | 99.9                | -  | 2.1                    | 59.                  | 99.9                | -  | 3.8                    | 134.                 | 99.9                | -  | 67.8                       | 67.8                       | 1.0                      | 3.4                      | E                      |
| 89              | 7  | 22               | 6  | .7                     | 113.                 | 99.9                | -  | 1.9                    | 52.                  | 99.9                | -  | 1.2                    | 74.                  | 99.9                | -  | 68.0                       | 68.0                       | .9                       | 2.6                      | E                      |
| 89              | 7  | 22               | 7  | 1.0                    | 112.                 | 99.9                | -  | 3.5                    | 62.                  | 99.9                | -  | 3.0                    | 174.                 | 99.9                | -  | 68.4                       | 68.4                       | .7                       | 1.1                      | E                      |
| 89              | 7  | 22               | 8  | .9                     | 341.                 | 99.9                | -  | 1.1                    | 32.                  | 99.9                | -  | 3.1                    | 272.                 | 99.9                | -  | 71.4                       | 70.3                       | -3.0                     | -3.0                     | D                      |
| 89              | 7  | 22               | 9  | 2.9                    | 271.                 | 99.9                | -  | 3.8                    | 260.                 | 99.9                | -  | 7.8                    | 245.                 | 99.9                | -  | 75.5                       | 70.2                       | -8.0                     | -2.9                     | D                      |
| 89              | 7  | 22               | 10 | 3.2                    | 259.                 | 99.9                | -  | 4.7                    | 262.                 | 99.9                | -  | 5.1                    | 251.                 | 99.9                | -  | 76.9                       | 70.0                       | -9.0                     | -2.9                     | D                      |
| 89              | 7  | 22               | 11 | 3.0                    | 242.                 | 99.9                | -  | 4.0                    | 260.                 | 99.9                | -  | 3.5                    | 251.                 | 99.9                | -  | 75.5                       | 71.6                       | -5.0                     | -2.1                     | D                      |
| 89              | 7  | 22               | 12 | 1.2                    | 191.                 | 99.9                | -  | 2.3                    | 167.                 | 99.9                | -  | 2.8                    | 264.                 | 99.9                | -  | 78.3                       | 72.3                       | -6.0                     | -2.3                     | D                      |
| 89              | 7  | 22               | 13 | 2.4                    | 47.                  | 99.9                | -  | 3.1                    | 38.                  | 99.9                | -  | 5.5                    | 259.                 | 99.9                | -  | 82.2                       | 70.8                       | -7.0                     | -2.6                     | D                      |
| 89              | 7  | 22               | 14 | 2.6                    | 286.                 | 99.9                | -  | 4.1                    | 273.                 | 99.9                | -  | 9.3                    | 207.                 | 99.9                | -  | 80.8                       | 74.7                       | .0                       | -9.0                     | E                      |
| 89              | 7  | 22               | 15 | 3.2                    | 174.                 | 99.9                | -  | 8.4                    | 198.                 | 99.9                | -  | 3.7                    | 228.                 | 99.9                | -  | 84.0                       | 70.2                       | -7.0                     | -3.0                     | D                      |
| 89              | 7  | 22               | 16 | 2.1                    | 262.                 | 99.9                | -  | 3.0                    | 271.                 | 99.9                | -  | 6.6                    | 241.                 | 99.9                | -  | 85.1                       | 69.8                       | -7.0                     | -2.7                     | D                      |
| 89              | 7  | 22               | 17 | 3.6                    | 256.                 | 99.9                | -  | 5.7                    | 262.                 | 99.9                | -  | 8.0                    | 265.                 | 99.9                | -  | 87.1                       | 66.5                       | -1.0                     | -3.3                     | D                      |
| 89              | 7  | 22               | 18 | 4.2                    | 259.                 | 99.9                | -  | 6.6                    | 269.                 | 99.9                | -  | 11.2                   | 262.                 | 99.9                | -  | 85.8                       | 66.6                       | -6.0                     | -2.3                     | D                      |
| 89              | 7  | 22               | 19 | 4.6                    | 260.                 | 99.9                | -  | 8.4                    | 270.                 | 99.9                | -  | 8.1                    | 341.                 | 99.9                | -  | 82.0                       | 71.2                       | -6.0                     | -2.0                     | D                      |
| 89              | 7  | 22               | 20 | 2.3                    | 45.                  | 99.9                | -  | 4.2                    | 348.                 | 99.9                | -  | 2.7                    | 48.                  | 99.9                | -  | 77.4                       | 72.7                       | 1.6                      | 3.8                      | E                      |
| 89              | 7  | 22               | 21 | 1.2                    | 94.                  | 99.9                | -  | 1.0                    | 22.                  | 99.9                | -  | 1.2                    | 245.                 | 99.9                | -  | 74.2                       | 72.0                       | 1.2                      | 3.8                      | E                      |
| 89              | 7  | 22               | 22 | .7                     | 106.                 | 99.9                | -  | .8                     | 338.                 | 99.9                | -  | 1.6                    | 142.                 | 99.9                | -  | 72.1                       | 71.5                       | 1.8                      | 5.6                      | F                      |
| 89              | 7  | 22               | 23 | 1.2                    | 144.                 | 99.9                | -  | .9                     | 218.                 | 99.9                | -  | 1.9                    | 233.                 | 99.9                | -  | 70.6                       | 70.5                       | 1.5                      | 4.8                      | F                      |
| 89              | 7  | 22               | 24 | .9                     | 149.                 | 99.9                | -  | .8                     | 7.                   | 99.9                | -  | 3.7                    | 296.                 | 99.9                | -  | 69.5                       | 69.5                       | 1.4                      | 3.1                      | E                      |
| 89              | 7  | 23               | 1  | .6                     | 127.                 | 99.9                | -  | 1.2                    | 359.                 | 99.9                | -  | 2.3                    | 317.                 | 99.9                | -  | 83.5                       | 68.6                       | -5.0                     | -2.6                     | D                      |
| 89              | 7  | 23               | 12 | 2.5                    | 301.                 | 99.9                | -  | 2.0                    | 324.                 | 99.9                | -  | 4.0                    | 227.                 | 99.9                | -  | 85.8                       | 67.6                       | -1.3                     | -3.6                     | D                      |
| 89              | 7  | 23               | 13 | 3.3                    | 224.                 | 99.9                | -  | 3.8                    | 209.                 | 99.9                | -  | 4.8                    | 341.                 | 99.9                | -  | 85.7                       | 66.9                       | -2.0                     | -2.5                     | D                      |
| 89              | 7  | 23               | 14 | 1.8                    | 73.                  | 99.9                | -  | 3.2                    | 43.                  | 99.9                | -  | 3.8                    | 341.                 | 99.9                | -  | 87.4                       | 64.1                       | -1.0                     | -2.6                     | D                      |
| 89              | 7  | 23               | 15 | 2.1                    | 46.                  | 99.9                | -  | 3.0                    | 14.                  | 99.9                | -  | 3.3                    | 28.                  | 99.9                | -  | 88.1                       | 67.0                       | -6.0                     | -3.3                     | D                      |
| 89              | 7  | 23               | 16 | 2.3                    | 109.                 | 99.9                | -  | 2.8                    | 74.                  | 99.9                | -  | 1.5                    | 108.                 | 99.9                | -  | 87.1                       | 69.5                       | -3.0                     | -1.8                     | D                      |
| 89              | 7  | 23               | 17 | 1.3                    | 116.                 | 99.9                | -  | 2.6                    | 124.                 | 99.9                | -  | 2.8                    | 312.                 | 99.9                | -  | 88.5                       | 64.9                       | -7.0                     | -3.0                     | D                      |
| 89              | 7  | 23               | 18 | 2.4                    | 268.                 | 99.9                | -  | 2.5                    | 280.                 | 99.9                | -  | 4.5                    | 341.                 | 99.9                | -  | 87.6                       | 67.6                       | -7.0                     | -2.5                     | D                      |
| 89              | 7  | 23               | 19 | 2.2                    | 348.                 | 99.9                | -  | 3.9                    | 348.                 | 99.9                | -  | 5.8                    | 6.                   | 99.9                | -  | 84.9                       | 69.9                       | -2.0                     | -1.0                     | E                      |
| 89              | 7  | 23               | 20 | 1.2                    | 14.                  | 99.9                | -  | 1.9                    | 2.                   | 99.9                | -  | 5.8                    | 6.                   | 99.9                | -  | 84.9                       | 69.9                       | -2.0                     | -1.0                     | E                      |



PROGRAM: LIST VERSION: PC-1.0

## LISTING FOR BEAVER VALLEY HOURLY METEOROLOGICAL DATA 500-FT LEVEL BATCH RELEASES FOR THE THIRD QUARTER 1989

-----35 FT-----150 FT-----500 FT-----

| VR | MO | DAY | HR | WIND<br>SPEED<br>(MPH) | WIND<br>DIR<br>(DEG) | STD<br>DEV<br>(DEG) | WIND<br>SPEED<br>(MPH) | WIND<br>DIR<br>(DEG) | STD<br>DEV<br>(DEG) | WIND<br>SPEED<br>(MPH) | WIND<br>DIR<br>(DEG) | STD<br>DEV<br>(DEG) | AMR.<br>TEMP<br>35F<br>(F) | DEW<br>POINT<br>35F<br>(F) | DELTA T<br>150-35<br>(F) | DELTA T<br>500-35<br>(F) | RAIN<br>FALL<br>SC(IN) |
|----|----|-----|----|------------------------|----------------------|---------------------|------------------------|----------------------|---------------------|------------------------|----------------------|---------------------|----------------------------|----------------------------|--------------------------|--------------------------|------------------------|
| 89 | 7  | 23  | 21 | 1.0                    | 106.                 | 99.9                | 1.6                    | 16.                  | 99.9                | 2.1                    | 86.                  | 99.9                | 78.6                       | 72.5                       | 1.5 F                    | 3.7 E                    | .00                    |
| 89 | 7  | 23  | 22 | .9                     | 97.                  | 99.9                | 1.4                    | 67.                  | 99.9                | 2.0                    | 79.                  | 99.9                | 74.9                       | 71.6                       | 2.2 F                    | 6.3 F                    | .00                    |
| 89 | 7  | 23  | 23 | 1.7                    | 142.                 | 99.9                | 2.9                    | 217.                 | 99.9                | 2.0                    | 2.                   | 99.9                | 73.0                       | 70.1                       | 2.6 F                    | 6.1 F                    | .00                    |
| 89 | 7  | 23  | 24 | 1.0                    | 119.                 | 99.9                | .9                     | 149.                 | 99.9                | 3.2                    | 27.                  | 99.9                | 70.8                       | 69.9                       | 2.3 F                    | 5.6 F                    | .00                    |
| 89 | 7  | 24  | 1  | 1.0                    | 117.                 | 99.9                | 2.6                    | 196.                 | 99.9                | 2.8                    | 12.                  | 99.9                | 69.9                       | 69.6                       | 2.2 F                    | 5.7 F                    | .00                    |
| 89 | 7  | 24  | 2  | .6                     | 100.                 | 99.9                | 1.8                    | 7.                   | 99.9                | 3.0                    | 62.                  | 99.9                | 69.1                       | 69.1                       | 1.3 F                    | 5.4 F                    | .00                    |
| 89 | 7  | 24  | 3  | .7                     | 68.                  | 99.9                | 1.6                    | 12.                  | 99.9                | 3.9                    | 60.                  | 99.9                | 68.5                       | 68.5                       | 1.5 F                    | 5.2 F                    | .00                    |
| 89 | 7  | 24  | 4  | .7                     | 102.                 | 99.9                | 1.2                    | 337.                 | 99.9                | 3.6                    | 71.                  | 99.9                | 67.8                       | 67.8                       | 1.8 F                    | 5.2 F                    | .00                    |
| 89 | 7  | 24  | 5  | 1.0                    | 112.                 | 99.9                | 1.9                    | 13.                  | 99.9                | 2.5                    | 78.                  | 99.9                | 67.4                       | 67.4                       | 1.6 F                    | 4.5 F                    | .00                    |
| 89 | 7  | 24  | 6  | .7                     | 108.                 | 99.9                | 1.6                    | 25.                  | 99.9                | 2.0                    | 54.                  | 99.9                | 67.1                       | 67.1                       | 1.6 F                    | 3.5 E                    | .00                    |
| 89 | 7  | 24  | 7  | 1.1                    | 133.                 | 99.9                | .8                     | 340.                 | 99.9                | 2.4                    | 77.                  | 99.9                | 67.4                       | 67.4                       | .9 E                     | 3.3 E                    | .00                    |
| 89 | 7  | 24  | 8  | .7                     | 148.                 | 99.9                | .6                     | 140.                 | 99.9                | 2.8                    | 78.                  | 99.9                | 70.6                       | 70.2                       | .6 D                     | 1.4 E                    | .00                    |
| 89 | 7  | 24  | 9  | 1.7                    | 314.                 | 99.9                | 1.7                    | 346.                 | 99.9                | 1.5                    | 100.                 | 99.9                | 74.5                       | 70.5                       | .6 D                     | .0 E                     | .00                    |
| 89 | 7  | 24  | 10 | 3.1                    | 350.                 | 99.9                | 2.7                    | 2.                   | 99.9                | 1.9                    | 98.                  | 99.9                | 80.0                       | 71.3                       | .7 D                     | -1.9 D                   | .00                    |
| 89 | 7  | 24  | 11 | 3.2                    | 349.                 | 99.9                | 3.7                    | 347.                 | 99.9                | 2.2                    | 38.                  | 99.9                | 84.4                       | 70.4                       | .8 D                     | -1.7 D                   | .00                    |
| 89 | 7  | 24  | 12 | 3.0                    | 319.                 | 99.9                | 3.8                    | 313.                 | 99.9                | 3.9                    | 322.                 | 99.9                | 86.0                       | 68.5                       | .8 D                     | -3.1 D                   | .00                    |
| 89 | 7  | 24  | 13 | 3.6                    | 255.                 | 99.9                | 3.5                    | 271.                 | 99.9                | 2.8                    | 272.                 | 99.9                | 87.3                       | 66.8                       | .9 D                     | -2.6 D                   | .00                    |
| 89 | 7  | 24  | 14 | 1.1                    | 43.                  | 99.9                | 1.4                    | 292.                 | 99.9                | 2.1                    | 338.                 | 99.9                | 86.5                       | 63.6                       | .0 E                     | -1.4 D                   | .00                    |
| 89 | 7  | 24  | 15 | 2.4                    | 95.                  | 99.9                | 2.8                    | 28.                  | 99.9                | 2.4                    | 84.                  | 99.9                | 90.7                       | 66.3                       | .7 D                     | -2.7 D                   | .00                    |
| 89 | 7  | 24  | 16 | 3.5                    | 299.                 | 99.9                | 4.1                    | 300.                 | 99.9                | 5.0                    | 304.                 | 99.9                | 90.7                       | 65.7                       | .9 D                     | -3.5 D                   | .00                    |
| 89 | 7  | 24  | 17 | 2.0                    | 313.                 | 99.9                | 2.4                    | 333.                 | 99.9                | 2.2                    | 319.                 | 99.9                | 90.9                       | 64.8                       | .8 D                     | -3.2 D                   | .00                    |
| 89 | 7  | 24  | 18 | 2.8                    | 344.                 | 99.9                | 5.1                    | 348.                 | 99.9                | 5.9                    | 345.                 | 99.9                | 90.4                       | 66.3                       | -1.3 A                   | -3.3 D                   | .00                    |
| 89 | 7  | 24  | 19 | 2.3                    | 346.                 | 99.9                | 6.2                    | 1.                   | 99.9                | 9.5                    | 4.                   | 99.9                | 87.5                       | 69.6                       | .2 E                     | -1.1 E                   | .00                    |
| 89 | 7  | 24  | 20 | 1.2                    | 24.                  | 99.9                | 4.5                    | 27.                  | 99.9                | 11.2                   | 23.                  | 99.9                | 84.7                       | 72.2                       | .1 E                     | .2 E                     | .00                    |
| 89 | 7  | 24  | 21 | 1.3                    | 152.                 | 99.9                | 1.3                    | 358.                 | 99.9                | 5.3                    | 36.                  | 99.9                | 80.0                       | 72.9                       | 1.8 F                    | 2.1 E                    | .00                    |
| 89 | 7  | 24  | 22 | 1.5                    | 132.                 | 99.9                | 1.3                    | 207.                 | 99.9                | 3.5                    | 35.                  | 99.9                | 76.8                       | 72.2                       | 2.4 F                    | 4.8 F                    | .00                    |
| 89 | 7  | 24  | 23 | 1.6                    | 151.                 | 99.9                | 2.8                    | 220.                 | 99.9                | 2.6                    | 358.                 | 99.9                | 74.7                       | 71.5                       | 1.7 F                    | 5.6 F                    | .00                    |
| 89 | 7  | 24  | 24 | 1.3                    | 140.                 | 99.9                | 1.9                    | 227.                 | 99.9                | 4.8                    | 331.                 | 99.9                | 73.2                       | 70.7                       | 1.8 F                    | 5.4 F                    | .00                    |
| 89 | 7  | 25  | 1  | .9                     | 155.                 | 99.9                | 2.0                    | 219.                 | 99.9                | 2.7                    | 350.                 | 99.9                | 71.9                       | 70.7                       | 1.8 F                    | 5.2 F                    | .00                    |
| 89 | 7  | 25  | 2  | 1.0                    | 143.                 | 99.9                | 2.2                    | 187.                 | 99.9                | 1.5                    | 334.                 | 99.9                | 70.6                       | 70.6                       | 1.6 F                    | 4.7 F                    | .00                    |
| 89 | 7  | 25  | 3  | .8                     | 133.                 | 99.9                | 1.8                    | 10.                  | 99.9                | 1.1                    | 64.                  | 99.9                | 69.7                       | 69.7                       | 1.5 F                    | 4.4 F                    | .00                    |
| 89 | 7  | 25  | 4  | 1.5                    | 140.                 | 99.9                | 2.5                    | 217.                 | 99.9                | 1.5                    | 225.                 | 99.9                | 69.8                       | 69.8                       | 1.5 F                    | 4.1 F                    | .00                    |
| 89 | 7  | 25  | 5  | .6                     | 146.                 | 99.9                | 1.3                    | 203.                 | 99.9                | 3.4                    | 306.                 | 99.9                | 68.8                       | 68.8                       | 1.7 F                    | 2.7 E                    | .00                    |
| 89 | 7  | 25  | 6  | .6                     | 146.                 | 99.9                | 2.6                    | 15.                  | 99.9                | 2.2                    | 293.                 | 99.9                | 68.3                       | 68.3                       | 1.3 F                    | 2.4 E                    | .00                    |
| 89 | 7  | 25  | 7  | .8                     | 185.                 | 99.9                | .9                     | 115.                 | 99.9                | 1.4                    | 190.                 | 99.9                | 69.0                       | 69.0                       | .4 E                     | 1.5 E                    | .00                    |
| 89 | 7  | 25  | 8  | 1.1                    | 14.                  | 99.9                | .8                     | 349.                 | 99.9                | .8                     | 61.                  | 99.9                | 71.5                       | 71.2                       | .3 E                     | .1 E                     | .00                    |
| 89 | 7  | 25  | 9  | 1.9                    | 321.                 | 99.9                | 2.1                    | 357.                 | 99.9                | 1.7                    | 86.                  | 99.9                | 74.9                       | 71.5                       | .5 D                     | .4 E                     | .00                    |
| 89 | 7  | 25  | 10 | 2.1                    | 298.                 | 99.9                | 1.3                    | 305.                 | 99.9                | 3.0                    | 32.                  | 99.9                | 78.9                       | 72.2                       | .2 E                     | .8 E                     | .00                    |
| 89 | 7  | 25  | 11 | 1.9                    | 331.                 | 99.9                | 1.8                    | 29.                  | 99.9                | 1.2                    | 47.                  | 99.9                | 83.7                       | 70.9                       | .3 E                     | .2 D                     | .00                    |
| 89 | 7  | 25  | 12 | 3.0                    | 235.                 | 99.9                | 3.6                    | 229.                 | 99.9                | 3.5                    | 242.                 | 99.9                | 86.6                       | 69.5                       | .9 D                     | .1 D                     | .00                    |
| 89 | 7  | 25  | 13 | 3.9                    | 284.                 | 99.9                | 3.9                    | 310.                 | 99.9                | 4.8                    | 303.                 | 99.9                | 87.7                       | 69.0                       | .9 D                     | .3 D                     | .00                    |
| 89 | 7  | 25  | 14 | 3.4                    | 307.                 | 99.9                | 5.3                    | 334.                 | 99.9                | 6.5                    | 337.                 | 99.9                | 89.2                       | 67.3                       | -1.3 A                   | -3.6 D                   | .00                    |
| 89 | 7  | 25  | 15 | 4.1                    | 286.                 | 99.9                | 5.0                    | 298.                 | 99.9                | 6.1                    | 306.                 | 99.9                | 89.8                       | 67.9                       | -1.0 C                   | -3.5 D                   | .00                    |
| 89 | 7  | 25  | 16 | 3.4                    | 340.                 | 99.9                | 4.9                    | 353.                 | 99.9                | 5.7                    | 345.                 | 99.9                | 90.2                       | 67.1                       | -1.2 A                   | -3.5 D                   | .00                    |
| 89 | 7  | 25  | 17 | 3.6                    | 282.                 | 99.9                | 5.9                    | 283.                 | 99.9                | 7.0                    | 284.                 | 99.9                | 90.4                       | 68.0                       | -1.3 A                   | -3.4 D                   | .00                    |
| 89 | 7  | 25  | 18 | 2.8                    | 326.                 | 99.9                | 4.5                    | 342.                 | 99.9                | 6.5                    | 344.                 | 99.9                | 89.3                       | 69.7                       | .6 D                     | -2.5 D                   | .00                    |
| 89 | 7  | 25  | 19 | 1.6                    | 325.                 | 99.9                | 5.8                    | 332.                 | 99.9                | 8.9                    | 348.                 | 99.9                | 85.9                       | 71.9                       | 1.2 F                    | .4 E                     | .00                    |
| 89 | 7  | 25  | 20 | 5.3                    | 216.                 | 99.9                | 6.7                    | 261.                 | 99.9                | 8.0                    | 265.                 | 99.9                | 83.3                       | 72.3                       | .3 D                     | -1.1 E                   | .00                    |



## LISTING FOR BEAVER VALLEY HOURLY METEOROLOGICAL DATA 500-FT LEVEL BATCH RELEASES FOR THE THIRD QUARTER 1989

-----35 FT-----150 FT-----500 FT-----

| YR | MO | DY | HR | WIND  | WIND  | STD    | WIND  | WIND  | STD    | WIND  | WIND  | STD    | AMB. | DEW   | DELTA T | DELTA T | RAIN |
|----|----|----|----|-------|-------|--------|-------|-------|--------|-------|-------|--------|------|-------|---------|---------|------|
|    |    |    |    | SPEED | DIR   | DEV    | SPEED | DIR   | DEV    | SPEED | DIR   | DEV    | TEMP | POINT |         |         |      |
|    |    |    |    | (MPH) | (DEG) | SC     | (MPH) | (DEG) | SC     | (MPH) | (DEG) | SC     | (F)  | (F)   | (F)     | SC      | FALL |
| 89 | 7  | 25 | 21 | 2.2   | 187.  | 99.9 - | 4.0   | 213.  | 99.9 - | 3.3   | 246.  | 99.9 - | 79.8 | 73.8  | .2 E    | -.3 E   | .00  |
| 89 | 7  | 25 | 22 | 3.1   | 205.  | 99.9 - | 4.7   | 228.  | 99.9 - | 5.4   | 245.  | 99.9 - | 78.0 | 73.4  | .5 E    | .0 E    | .00  |
| 89 | 7  | 25 | 23 | 1.7   | 177.  | 99.9 - | 3.6   | 231.  | 99.9 - | 3.7   | 263.  | 99.9 - | 75.5 | 73.1  | 1.1 F   | .6 E    | .00  |
| 89 | 7  | 25 | 24 | 1.9   | 136.  | 99.9 - | 3.0   | 221.  | 99.9 - | 5.2   | 298.  | 99.9 - | 73.8 | 72.6  | 1.7 F   | 1.3 E   | .00  |
| 89 | 7  | 26 | 1  | 2.1   | 163.  | 99.9 - | 3.2   | 230.  | 99.9 - | 3.2   | 251.  | 99.9 - | 72.8 | 72.1  | 1.5 F   | 2.0 E   | .00  |
| 89 | 7  | 26 | 2  | .8    | 123.  | 99.9 - | 1.6   | 218.  | 99.9 - | .8    | 304.  | 99.9 - | 71.8 | 71.6  | 1.4 F   | 1.3 E   | .00  |
| 89 | 7  | 26 | 3  | 1.1   | 152.  | 99.9 - | 2.2   | 210.  | 99.9 - | 2.3   | 265.  | 99.9 - | 71.3 | 71.3  | 1.1 F   | 1.5 E   | .00  |
| 89 | 7  | 26 | 4  | 2.4   | 177.  | 99.9 - | 3.8   | 252.  | 99.9 - | 5.8   | 278.  | 99.9 - | 71.1 | 71.1  | .9 E    | 1.1 E   | .00  |
| 89 | 7  | 26 | 5  | 2.6   | 156.  | 99.9 - | 2.9   | 221.  | 99.9 - | 3.3   | 273.  | 99.9 - | 71.6 | 71.6  | .4 E    | -.5 E   | .00  |
| 89 | 7  | 26 | 6  | 2.3   | 167.  | 99.9 - | 3.3   | 218.  | 99.9 - | 3.8   | 253.  | 99.9 - | 70.6 | 70.6  | 1.0 F   | .4 E    | .00  |
| 89 | 7  | 26 | 7  | 1.9   | 178.  | 99.9 - | 3.5   | 255.  | 99.9 - | 3.6   | 281.  | 99.9 - | 71.2 | 71.2  | .1 E    | -.6 E   | .00  |
| 89 | 7  | 26 | 8  | 2.7   | 254.  | 99.9 - | 3.3   | 253.  | 99.9 - | 4.5   | 286.  | 99.9 - | 73.2 | 72.6  | -.6 D   | -2.1 D  | .00  |
| 89 | 7  | 26 | 9  | 3.2   | 249.  | 99.9 - | 3.2   | 262.  | 99.9 - | 5.8   | 346.  | 99.9 - | 75.2 | 72.5  | -.6 D   | -1.3 D  | .00  |
| 89 | 7  | 26 | 10 | 2.9   | 348.  | 99.9 - | 5.6   | 23.   | 99.9 - | 6.6   | 17.   | 99.9 - | 77.8 | 71.8  | -1.1 B  | -2.7 D  | .00  |
| 89 | 7  | 26 | 11 | 4.3   | 3.    | 99.9 - | 7.2   | 21.   | 99.9 - | 8.5   | 14.   | 99.9 - | 79.6 | 68.9  | -1.4 A  | -3.1 D  | .00  |
| 89 | 7  | 26 | 12 | 7.5   | 40.   | 99.9 - | 4.6   | 57.   | 99.9 - | 4.2   | 64.   | 99.9 - | 80.4 | 69.7  | -1.1 B  | -3.0 D  | .00  |
| 89 | 7  | 26 | 13 | 4.0   | 7.    | 99.9 - | 5.3   | 29.   | 99.9 - | 4.2   | 53.   | 99.9 - | 81.7 | 71.6  | -1.3 A  | -3.2 D  | .00  |
| 89 | 7  | 26 | 14 | 3.1   | 310.  | 99.9 - | 3.5   | 296.  | 99.9 - | 6.1   | 284.  | 99.9 - | 84.2 | 69.6  | -.8 D   | -3.1 D  | .00  |
| 89 | 7  | 26 | 15 | 5.6   | 245.  | 99.9 - | 7.1   | 247.  | 99.9 - | 9.8   | 236.  | 99.9 - | 82.5 | 72.2  | -1.0 C  | -3.1 D  | .00  |
| 89 | 7  | 26 | 16 | 4.4   | 226.  | 99.9 - | 5.5   | 230.  | 99.9 - | 8.6   | 222.  | 99.9 - | 82.4 | 73.2  | -.8 D   | -3.0 D  | .00  |
| 89 | 7  | 26 | 17 | 4.3   | 259.  | 99.9 - | 6.6   | 275.  | 99.9 - | 9.6   | 274.  | 99.9 - | 78.7 | 71.7  | -.7 D   | -2.6 D  | .00  |
| 89 | 7  | 26 | 18 | 2.5   | 268.  | 99.9 - | 4.0   | 302.  | 99.9 - | 6.0   | 292.  | 99.9 - | 77.6 | 71.1  | -.5 D   | -2.2 D  | .00  |
| 89 | 7  | 26 | 19 | 1.9   | 82.   | 99.9 - | 2.5   | 19.   | 99.9 - | 3.9   | 306.  | 99.9 - | 73.9 | 73.1  | -.2 E   | -.5 E   | .04  |
| 89 | 7  | 26 | 20 | 2.1   | 176.  | 99.9 - | 4.2   | 187.  | 99.9 - | 4.2   | 249.  | 99.9 - | 74.0 | 73.7  | .2 E    | -.8 E   | .00  |
| 89 | 7  | 26 | 21 | 2.2   | 181.  | 99.9 - | 3.4   | 171.  | 99.9 - | 4.4   | 242.  | 99.9 - | 73.3 | 73.1  | .4 E    | -.8 E   | .00  |
| 89 | 7  | 26 | 22 | 2.9   | 175.  | 99.9 - | 3.8   | 229.  | 99.9 - | 7.7   | 250.  | 99.9 - | 72.9 | 72.4  | .1 E    | -.9 E   | .00  |
| 89 | 7  | 26 | 23 | 2.3   | 177.  | 99.9 - | 3.5   | 241.  | 99.9 - | 9.2   | 270.  | 99.9 - | 72.0 | 72.0  | .2 E    | -.4 E   | .00  |
| 89 | 7  | 26 | 24 | 3.3   | 181.  | 99.9 - | 5.1   | 210.  | 99.9 - | 7.8   | 262.  | 99.9 - | 71.7 | 71.7  | .1 E    | -.3 E   | .00  |
| 89 | 7  | 27 | 1  | 2.2   | 191.  | 99.9 - | 3.7   | 196.  | 99.9 - | 5.6   | 246.  | 99.9 - | 72.3 | 72.3  | -.1 E   | -1.4 D  | .00  |
| 89 | 7  | 27 | 2  | 2.6   | 192.  | 99.9 - | 4.1   | 248.  | 99.9 - | 9.9   | 267.  | 99.9 - | 72.7 | 72.7  | -.2 E   | -1.4 D  | .00  |
| 89 | 7  | 27 | 3  | 2.1   | 166.  | 99.9 - | 3.8   | 184.  | 99.9 - | 3.7   | 215.  | 99.9 - | 72.5 | 72.5  | -.2 E   | -1.8 D  | .00  |
| 89 | 7  | 27 | 4  | 2.1   | 207.  | 99.9 - | 3.9   | 230.  | 99.9 - | 5.2   | 236.  | 99.9 - | 72.6 | 72.6  | -.3 E   | -2.0 D  | .00  |
| 89 | 7  | 27 | 5  | 2.7   | 213.  | 99.9 - | 4.1   | 211.  | 99.9 - | 8.1   | 223.  | 99.9 - | 72.3 | 72.3  | -.4 D   | -2.0 D  | .00  |
| 89 | 7  | 27 | 6  | 1.7   | 125.  | 99.9 - | 2.0   | 216.  | 99.9 - | 4.9   | 263.  | 99.9 - | 72.7 | 72.3  | -.3 E   | -2.2 D  | .00  |
| 89 | 7  | 27 | 7  | 4.3   | 243.  | 99.9 - | 6.9   | 260.  | 99.9 - | 9.8   | 261.  | 99.9 - | 73.2 | 71.9  | -.4 D   | -2.3 D  | .00  |
| 89 | 7  | 27 | 8  | 3.4   | 261.  | 99.9 - | 6.0   | 275.  | 99.9 - | 8.2   | 269.  | 99.9 - | 73.3 | 71.9  | -.5 D   | -2.4 D  | .00  |
| 89 | 7  | 27 | 9  | 2.9   | 256.  | 99.9 - | 4.7   | 272.  | 99.9 - | 6.5   | 257.  | 99.9 - | 74.0 | 72.1  | -.5 D   | -2.4 D  | .00  |
| 89 | 7  | 27 | 10 | 5.7   | 242.  | 99.9 - | 7.4   | 246.  | 99.9 - | 10.0  | 239.  | 99.9 - | 74.7 | 72.3  | -.6 D   | -2.6 D  | .00  |
| 89 | 7  | 27 | 11 | 4.0   | 266.  | 99.9 - | 6.8   | 275.  | 99.9 - | 10.0  | 266.  | 99.9 - | 73.5 | 72.7  | -.3 E   | -2.0 D  | .06  |
| 89 | 7  | 27 | 12 | 1.4   | 242.  | 99.9 - | 3.3   | 241.  | 99.9 - | 6.6   | 280.  | 99.9 - | 71.3 | 71.3  | -.2 E   | -1.0 E  | .00  |
| 89 | 7  | 27 | 13 | 1.7   | 194.  | 99.9 - | 3.7   | 203.  | 99.9 - | 4.2   | 232.  | 99.9 - | 72.1 | 72.1  | -.4 D   | -1.7 D  | .00  |
| 89 | 7  | 27 | 14 | 2.7   | 201.  | 99.9 - | 4.6   | 206.  | 99.9 - | 4.8   | 246.  | 99.9 - | 71.7 | 71.7  | .1 E    | -.7 E   | .00  |
| 89 | 7  | 27 | 15 | 2.5   | 228.  | 99.9 - | 3.6   | 245.  | 99.9 - | 3.7   | 227.  | 99.9 - | 71.9 | 71.1  | -.2 E   | -1.7 D  | .00  |
| 89 | 7  | 27 | 16 | 1.5   | 182.  | 99.9 - | 2.3   | 249.  | 99.9 - | 4.6   | 251.  | 99.9 - | 73.3 | 71.6  | -.7 D   | -2.7 D  | .00  |
| 89 | 7  | 27 | 17 | 2.9   | 253.  | 99.9 - | 3.8   | 270.  | 99.9 - | 5.9   | 239.  | 99.9 - | 75.7 | 71.0  | -.7 D   | -2.6 D  | .00  |
| 89 | 7  | 27 | 18 | 8.0   | 229.  | 99.9 - | 12.0  | 230.  | 99.9 - | 18.0  | 226.  | 99.9 - | 74.7 | 71.0  | -.4 D   | -2.1 D  | .00  |
| 89 | 7  | 27 | 19 | 5.2   | 219.  | 99.9 - | 8.0   | 236.  | 99.9 - | 10.7  | 242.  | 99.9 - | 70.2 | 67.1  | -.2 E   | -2.6 D  | .00  |
| 89 | 7  | 27 | 20 | 3.6   | 224.  | 99.9 - | 5.0   | 278.  | 99.9 - | 6.9   | 271.  | 99.9 - | 70.7 | 67.7  | -.4 D   | -2.8 D  | .00  |

PROGRAM: LIST VERSION: PC-1.0

LISTING FOR BEAVER VALLEY HOURLY METEOROLOGICAL DATA 500-FT LEVEL BATCH RELEASES FOR THE THIRD QUARTER 1989

-----35 FT-----150 FT-----500 FT-----

| YR | MO | DAY | HR | WIND<br>SPEED<br>(MPH) | WIND<br>DIR<br>(DEG) | STD<br>DEV<br>(DEG) | SC | WIND<br>SPEED<br>(MPH) | WIND<br>DIR<br>(DEG) | STD<br>DEV<br>(DEG) | SC | WIND<br>SPEED<br>(MPH) | WIND<br>DIR<br>(DEG) | STD<br>DEV<br>(DEG) | SC | AMB.<br>TEMP<br>35F<br>(F) | DEW<br>POINT<br>35F<br>(F) | DELTA T<br>150-35<br>(F) | DELTA T<br>500-35<br>(F) | RAIN<br>FALL<br>SC(IN) |
|----|----|-----|----|------------------------|----------------------|---------------------|----|------------------------|----------------------|---------------------|----|------------------------|----------------------|---------------------|----|----------------------------|----------------------------|--------------------------|--------------------------|------------------------|
| 89 | 7  | 29  | 12 | 3.7                    | 26.                  | 99.9                | -  | 5.2                    | 43.                  | 99.9                | -  | 5.2                    | 51.                  | 99.9                | -  | 72.7                       | 50.7                       | -1.1 B                   | -3.4 D                   | .00                    |
| 89 | 7  | 29  | 13 | 2.9                    | 333.                 | 99.9                | -  | 4.2                    | 46.                  | 99.9                | -  | 4.0                    | 42.                  | 99.9                | -  | 74.1                       | 49.1                       | -1.1 B                   | -3.4 D                   | .00                    |
| 89 | 7  | 29  | 14 | 4.0                    | 360.                 | 99.9                | -  | 6.3                    | 9.                   | 99.9                | -  | 6.8                    | 8.                   | 99.9                | -  | 75.8                       | 50.8                       | -1.7 A                   | -4.4 B                   | .00                    |
| 89 | 7  | 29  | 15 | 3.9                    | 10.                  | 99.9                | -  | 6.3                    | 22.                  | 99.9                | -  | 6.3                    | 13.                  | 99.9                | -  | 76.9                       | 50.7                       | -1.7 A                   | -4.3 C                   | .00                    |
| 89 | 7  | 29  | 16 | 3.3                    | 10.                  | 99.9                | -  | 5.3                    | 34.                  | 99.9                | -  | 4.7                    | 10.                  | 99.9                | -  | 78.1                       | 50.3                       | -1.4 A                   | -4.1 C                   | .00                    |
| 89 | 7  | 29  | 17 | 2.5                    | 38.                  | 99.9                | -  | 4.7                    | 24.                  | 99.9                | -  | 4.4                    | 11.                  | 99.9                | -  | 78.0                       | 49.5                       | -1.3 A                   | -3.5 D                   | .00                    |
| 89 | 7  | 29  | 18 | 2.8                    | 340.                 | 99.9                | -  | 4.5                    | 338.                 | 99.9                | -  | 5.4                    | 322.                 | 99.9                | -  | 76.8                       | 51.3                       | -.8 D                    | -2.8 D                   | .00                    |
| 89 | 7  | 29  | 19 | 1.3                    | 68.                  | 99.9                | -  | 2.9                    | 356.                 | 99.9                | -  | 6.5                    | 359.                 | 99.9                | -  | 74.4                       | 57.3                       | -.2 E                    | -1.1 E                   | .00                    |
| 89 | 7  | 29  | 20 | 1.5                    | 152.                 | 99.9                | -  | 1.3                    | 161.                 | 99.9                | -  | 4.7                    | 7.                   | 99.9                | -  | 69.8                       | 60.4                       | 1.6 F                    | 1.6 E                    | .00                    |
| 89 | 7  | 29  | 21 | 1.8                    | 139.                 | 99.9                | -  | .7                     | 275.                 | 99.9                | -  | 3.5                    | 43.                  | 99.9                | -  | 65.3                       | 60.0                       | 2.5 F                    | 5.9 F                    | .00                    |
| 89 | 7  | 29  | 22 | 1.1                    | 144.                 | 99.9                | -  | 1.9                    | 58.                  | 99.9                | -  | 3.3                    | 58.                  | 99.9                | -  | 61.5                       | 59.0                       | 3.5 G                    | 7.8 F                    | .00                    |
| 89 | 7  | 29  | 23 | 1.4                    | 121.                 | 99.9                | -  | 1.0                    | 357.                 | 99.9                | -  | 1.9                    | 125.                 | 99.9                | -  | 59.3                       | 58.0                       | 3.6 G                    | 7.8 F                    | .00                    |
| 89 | 7  | 29  | 24 | .9                     | 126.                 | 99.9                | -  | 1.6                    | 51.                  | 99.9                | -  | 1.4                    | 120.                 | 99.9                | -  | 58.1                       | 57.8                       | 3.1 G                    | 7.2 F                    | .00                    |
| 89 | 7  | 30  | 1  | 1.6                    | 119.                 | 99.9                | -  | 2.5                    | 71.                  | 99.9                | -  | 2.3                    | 56.                  | 99.9                | -  | 57.6                       | 57.6                       | 1.8 F                    | 6.1 F                    | .00                    |
| 89 | 8  | 5   | 1  | 4.5                    | 210.                 | 99.9                | -  | 5.5                    | 233.                 | 99.9                | -  | 8.9                    | 261.                 | 99.9                | -  | 72.5                       | 71.5                       | -.1 E                    | -1.2 E                   | .00                    |
| 89 | 8  | 5   | 2  | 2.9                    | 253.                 | 99.9                | -  | 4.6                    | 266.                 | 99.9                | -  | 9.3                    | 268.                 | 99.9                | -  | 71.9                       | 71.2                       | -.3 E                    | -1.0 E                   | .00                    |
| 89 | 8  | 5   | 3  | 4.7                    | 241.                 | 99.9                | -  | 6.9                    | 266.                 | 99.9                | -  | 10.3                   | 273.                 | 99.9                | -  | 72.0                       | 71.9                       | -.4 D                    | -1.7 D                   | .00                    |
| 89 | 8  | 5   | 4  | 5.5                    | 257.                 | 99.9                | -  | 7.5                    | 262.                 | 99.9                | -  | 10.2                   | 256.                 | 99.9                | -  | 71.7                       | 71.7                       | -.4 D                    | -1.6 D                   | .00                    |
| 89 | 8  | 5   | 5  | 3.4                    | 223.                 | 99.9                | -  | 4.7                    | 231.                 | 99.9                | -  | 5.7                    | 233.                 | 99.9                | -  | 71.8                       | 71.7                       | -.5 D                    | -2.1 D                   | .00                    |
| 89 | 8  | 5   | 6  | 2.1                    | 214.                 | 99.9                | -  | 2.7                    | 242.                 | 99.9                | -  | 5.3                    | 246.                 | 99.9                | -  | 72.0                       | 71.9                       | -.4 D                    | -2.1 D                   | .00                    |
| 89 | 8  | 5   | 7  | 3.7                    | 221.                 | 99.9                | -  | 5.3                    | 228.                 | 99.9                | -  | 8.4                    | 237.                 | 99.9                | -  | 72.0                       | 72.0                       | -.4 D                    | -1.9 D                   | .00                    |
| 89 | 8  | 5   | 8  | 2.4                    | 243.                 | 99.9                | -  | 5.0                    | 286.                 | 99.9                | -  | 10.7                   | 265.                 | 99.9                | -  | 72.5                       | 72.5                       | -.5 D                    | -1.5 D                   | .00                    |
| 89 | 8  | 5   | 9  | 2.6                    | 281.                 | 99.9                | -  | 4.8                    | 300.                 | 99.9                | -  | 8.4                    | 276.                 | 99.9                | -  | 73.9                       | 73.6                       | -.8 D                    | -2.3 D                   | .00                    |
| 89 | 8  | 5   | 10 | 3.4                    | 288.                 | 99.9                | -  | 6.6                    | 289.                 | 99.9                | -  | 10.4                   | 278.                 | 99.9                | -  | 75.9                       | 74.3                       | -.8 D                    | -3.0 D                   | .00                    |
| 89 | 8  | 14  | 17 | 5.4                    | 232.                 | 99.9                | -  | 6.7                    | 239.                 | 99.9                | -  | 8.5                    | 232.                 | 99.9                | -  | 82.2                       | 57.2                       | -.9 D                    | -3.0 D                   | .00                    |
| 89 | 8  | 14  | 18 | 6.3                    | 237.                 | 99.9                | -  | 7.7                    | 230.                 | 99.9                | -  | 8.6                    | 222.                 | 99.9                | -  | 82.6                       | 57.3                       | -1.0 C                   | -3.0 D                   | .00                    |
| 89 | 8  | 14  | 19 | 2.6                    | 209.                 | 99.9                | -  | 4.5                    | 221.                 | 99.9                | -  | 6.7                    | 230.                 | 99.9                | -  | 81.6                       | 58.6                       | -.5 D                    | -2.5 D                   | .00                    |
| 89 | 8  | 14  | 20 | 1.4                    | 171.                 | 99.9                | -  | 1.7                    | 181.                 | 99.9                | -  | 3.9                    | 220.                 | 99.9                | -  | 75.1                       | 64.0                       | 3.4 B                    | 2.6 E                    | .00                    |
| 89 | 8  | 14  | 21 | 1.7                    | 143.                 | 99.9                | -  | 1.6                    | 62.                  | 99.9                | -  | 2.2                    | 302.                 | 99.9                | -  | 69.2                       | 63.1                       | 3.1 B                    | 6.9 F                    | .00                    |
| 89 | 8  | 14  | 22 | 1.2                    | 157.                 | 99.9                | -  | 2.6                    | 184.                 | 99.9                | -  | 1.6                    | 233.                 | 99.9                | -  | 66.6                       | 62.3                       | 3.9 B                    | 7.2 F                    | .00                    |
| 89 | 8  | 14  | 23 | 1.1                    | 160.                 | 99.9                | -  | .8                     | 280.                 | 99.9                | -  | 1.9                    | 250.                 | 99.9                | -  | 63.9                       | 61.9                       | 4.0 B                    | 7.3 F                    | .00                    |
| 89 | 8  | 14  | 24 | 1.0                    | 168.                 | 99.9                | -  | 3.0                    | 193.                 | 99.9                | -  | 3.0                    | 238.                 | 99.9                | -  | 62.5                       | 61.3                       | 3.3 B                    | 8.4 F                    | .00                    |
| 89 | 8  | 15  | 1  | .7                     | 161.                 | 99.9                | -  | 1.2                    | 17.                  | 99.9                | -  | 3.5                    | 287.                 | 99.9                | -  | 61.3                       | 61.1                       | 3.0 B                    | 4.3 F                    | .00                    |
| 89 | 8  | 15  | 2  | .8                     | 148.                 | 99.9                | -  | 2.5                    | 12.                  | 99.9                | -  | 1.7                    | 301.                 | 99.9                | -  | 60.4                       | 60.3                       | 2.3 F                    | 4.3 F                    | .00                    |
| 89 | 8  | 18  | 9  | 2.9                    | 79.                  | 99.9                | -  | 6.5                    | 70.                  | 99.9                | -  | 9.3                    | 79.                  | 99.9                | -  | 65.9                       | 56.4                       | -.9 D                    | -3.3 D                   | .00                    |
| 89 | 8  | 18  | 10 | 3.1                    | 67.                  | 99.9                | -  | 8.3                    | 69.                  | 99.9                | -  | 8.7                    | 84.                  | 99.9                | -  | 68.0                       | 56.9                       | -1.1 B                   | -3.2 D                   | .00                    |
| 89 | 8  | 18  | 11 | 3.0                    | 107.                 | 99.9                | -  | 6.0                    | 88.                  | 99.9                | -  | 6.8                    | 85.                  | 99.9                | -  | 71.4                       | 57.1                       | -1.7 A                   | -4.2 C                   | .00                    |
| 89 | 8  | 18  | 12 | 3.5                    | 113.                 | 99.9                | -  | 6.1                    | 106.                 | 99.9                | -  | 7.9                    | 103.                 | 99.9                | -  | 72.7                       | 57.7                       | -1.5 A                   | -3.5 D                   | .00                    |
| 89 | 8  | 18  | 13 | 3.4                    | 90.                  | 99.9                | -  | 6.6                    | 74.                  | 99.9                | -  | 6.9                    | 93.                  | 99.9                | -  | 74.1                       | 57.8                       | -1.1 B                   | -3.4 D                   | .00                    |
| 89 | 8  | 18  | 14 | 2.3                    | 124.                 | 99.9                | -  | 3.7                    | 116.                 | 99.9                | -  | 3.4                    | 103.                 | 99.9                | -  | 73.9                       | 58.6                       | -1.2 A                   | -3.3 D                   | .00                    |
| 89 | 8  | 18  | 15 | 2.8                    | 181.                 | 99.9                | -  | 3.1                    | 171.                 | 99.9                | -  | 2.7                    | 170.                 | 99.9                | -  | 73.9                       | 58.3                       | -1.0 C                   | -2.9 D                   | .00                    |
| 89 | 8  | 18  | 16 | 3.7                    | 223.                 | 99.9                | -  | 4.7                    | 206.                 | 99.9                | -  | 4.7                    | 191.                 | 99.9                | -  | 73.6                       | 59.5                       | -.9 D                    | -3.0 D                   | .00                    |
| 89 | 8  | 18  | 17 | 2.9                    | 198.                 | 99.9                | -  | 4.8                    | 184.                 | 99.9                | -  | 6.0                    | 182.                 | 99.9                | -  | 72.3                       | 60.9                       | -.5 D                    | -2.4 D                   | .00                    |
| 89 | 8  | 30  | 12 | 7.9                    | 268.                 | 99.9                | -  | 13.4                   | 281.                 | 99.9                | -  | 18.6                   | 285.                 | 99.9                | -  | 77.7                       | 53.1                       | -1.1 B                   | -3.4 D                   | .00                    |
| 89 | 8  | 30  | 13 | 8.7                    | 285.                 | 99.9                | -  | 15.7                   | 288.                 | 99.9                | -  | 18.9                   | 292.                 | 99.9                | -  | 79.1                       | 50.8                       | -1.3 A                   | -3.5 D                   | .00                    |
| 89 | 8  | 30  | 14 | 7.5                    | 309.                 | 99.9                | -  | 13.6                   | 297.                 | 99.9                | -  | 17.6                   | 305.                 | 99.9                | -  | 80.2                       | 49.6                       | -1.3 A                   | -3.7 D                   | .00                    |
| 89 | 8  | 30  | 15 | 7.5                    | 285.                 | 99.9                | -  | 13.6                   | 285.                 | 99.9                | -  | 18.2                   | 285.                 | 99.9                | -  | 80.6                       | 50.4                       | -1.5 A                   | -3.9 C                   | .00                    |
| 89 | 8  | 30  | 16 | 7.2                    | 290.                 | 99.9                | -  | 12.7                   | 294.                 | 99.9                | -  | 17.1                   | 303.                 | 99.9                | -  | 81.3                       | 50.9                       | -1.2 A                   | -3.4 D                   | .00                    |

PROGRAM: LIST

VERSION: PC-1.0

## LISTING FOR BEAVER VALLEY HOURLY METEOROLOGICAL DATA 500-FT LEVEL BATCH RELEASES FOR THE THIRD QUARTER 1989

-----35 FT-----150 FT-----500 FT-----

| YR | MO | DAY | HR | WIND<br>SPEED<br>(MPH) | WIND<br>DIR<br>(DEG) | STD<br>DEV<br>(DEG) | WIND<br>SPEED<br>(MPH) | WIND<br>DIR<br>(DEG) | STD<br>DEV<br>(DEG) | WIND<br>SPEED<br>(MPH) | WIND<br>DIR<br>(DEG) | STD<br>DEV<br>(DEG) | TEMP<br>35F<br>(F) | DEW<br>POINT<br>35F<br>(F) | DELTA T<br>150-35<br>(F) | DELTA T<br>500-35<br>(F) | RAIN<br>FALL<br>SC(IN) |   |     |
|----|----|-----|----|------------------------|----------------------|---------------------|------------------------|----------------------|---------------------|------------------------|----------------------|---------------------|--------------------|----------------------------|--------------------------|--------------------------|------------------------|---|-----|
| 89 | 8  | 30  | 17 | 6.6                    | 303.                 | 99.9                | 10.6                   | 301.                 | 99.9                | 14.0                   | 311.                 | 99.9                | 81.1               | 50.9                       | -1.1                     | B                        | -3.4                   | D | .00 |
| 89 | 8  | 30  | 18 | 6.2                    | 303.                 | 99.9                | 10.8                   | 304.                 | 99.9                | 15.1                   | 306.                 | 99.9                | 80.2               | 50.5                       | -0.8                     | D                        | -2.9                   | D | .00 |
| 89 | 8  | 30  | 19 | 4.3                    | 330.                 | 99.9                | 7.9                    | 314.                 | 99.9                | 12.7                   | 308.                 | 99.9                | 79.2               | 48.8                       | -0.6                     | D                        | -2.4                   | D | .00 |
| 89 | 9  | 5   | 4  | 2.6                    | 23.                  | 99.9                | 3.1                    | 61.                  | 99.9                | 13.4                   | 148.                 | 99.9                | 60.2               | 53.0                       | .0                       | E                        | .0                     | E | .00 |
| 89 | 9  | 5   | 5  | 2.1                    | 46.                  | 99.9                | 3.5                    | 112.                 | 99.9                | 13.7                   | 148.                 | 99.9                | 59.3               | 53.6                       | 1.1                      | F                        | 1.0                    | E | .00 |
| 89 | 9  | 5   | 6  | 1.7                    | 51.                  | 99.9                | 3.1                    | 104.                 | 99.9                | 11.6                   | 138.                 | 99.9                | 58.0               | 53.5                       | 1.0                      | F                        | .7                     | E | .00 |
| 89 | 9  | 5   | 7  | 2.0                    | 46.                  | 99.9                | 3.2                    | 66.                  | 99.9                | 10.5                   | 141.                 | 99.9                | 57.5               | 53.4                       | .4                       | E                        | .1                     | E | .00 |
| 89 | 9  | 5   | 8  | 2.0                    | 44.                  | 99.9                | 3.6                    | 52.                  | 99.9                | 9.2                    | 144.                 | 99.9                | 59.2               | 54.3                       | -0.3                     | E                        | -1.3                   | D | .00 |
| 89 | 9  | 5   | 9  | 2.0                    | 48.                  | 99.9                | 2.8                    | 102.                 | 99.9                | 8.3                    | 145.                 | 99.9                | 63.0               | 55.1                       | -0.5                     | D                        | -2.4                   | D | .00 |
| 89 | 9  | 5   | 10 | 3.8                    | 174.                 | 99.9                | 7.5                    | 155.                 | 99.9                | 8.5                    | 148.                 | 99.9                | 67.7               | 55.6                       | -1.2                     | A                        | -3.4                   | D | .00 |
| 89 | 9  | 5   | 11 | 4.7                    | 185.                 | 99.9                | 9.4                    | 168.                 | 99.9                | 11.1                   | 168.                 | 99.9                | 70.6               | 56.6                       | -1.7                     | A                        | -4.0                   | C | .00 |
| 89 | 9  | 5   | 12 | 4.3                    | 180.                 | 99.9                | 6.6                    | 166.                 | 99.9                | 8.3                    | 172.                 | 99.9                | 73.3               | 57.4                       | -1.8                     | A                        | -4.1                   | C | .00 |
| 89 | 9  | 5   | 13 | 4.0                    | 210.                 | 99.9                | 6.3                    | 151.                 | 99.9                | 8.6                    | 164.                 | 99.9                | 75.9               | 57.8                       | -1.8                     | A                        | -4.7                   | B | .00 |
| 89 | 9  | 5   | 14 | 4.7                    | 195.                 | 99.9                | 5.3                    | 184.                 | 99.9                | 8.9                    | 180.                 | 99.9                | 77.4               | 58.0                       | -1.7                     | A                        | -4.0                   | C | .00 |
| 89 | 9  | 5   | 21 | 1.1                    | 159.                 | 99.9                | 5.7                    | 164.                 | 99.9                | 17.1                   | 164.                 | 99.9                | 70.3               | 59.2                       | 2.3                      | F                        | 2.9                    | E | .00 |
| 89 | 9  | 5   | 22 | 1.4                    | 132.                 | 99.9                | 2.6                    | 71.                  | 99.9                | 11.1                   | 167.                 | 99.9                | 68.3               | 59.6                       | 2.2                      | F                        | 2.5                    | E | .00 |
| 89 | 9  | 5   | 23 | 2.0                    | 72.                  | 99.9                | 2.5                    | 68.                  | 99.9                | 7.2                    | 144.                 | 99.9                | 66.2               | 59.5                       | 2.1                      | F                        | 1.2                    | E | .00 |
| 89 | 9  | 5   | 24 | 2.1                    | 39.                  | 99.9                | 4.8                    | 112.                 | 99.9                | 14.9                   | 149.                 | 99.9                | 66.6               | 59.8                       | -1.1                     | E                        | -4.4                   | E | .00 |
| 89 | 9  | 6   | 1  | 2.7                    | 57.                  | 99.9                | 4.0                    | 94.                  | 99.9                | 11.0                   | 154.                 | 99.9                | 65.6               | 59.6                       | -1.1                     | E                        | -3.3                   | E | .00 |
| 89 | 9  | 6   | 2  | 2.1                    | 60.                  | 99.9                | 3.8                    | 51.                  | 99.9                | 5.0                    | 165.                 | 99.9                | 64.6               | 59.7                       | .3                       | E                        | -7.7                   | E | .00 |
| 89 | 9  | 6   | 3  | 1.8                    | 92.                  | 99.9                | 3.0                    | 54.                  | 99.9                | 3.3                    | 177.                 | 99.9                | 62.9               | 59.6                       | 1.4                      | F                        | .2                     | E | .00 |
| 89 | 9  | 6   | 4  | 1.7                    | 89.                  | 99.9                | 2.3                    | 104.                 | 99.9                | 2.5                    | 141.                 | 99.9                | 61.7               | 59.8                       | 2.0                      | F                        | 1.1                    | E | .00 |
| 89 | 9  | 6   | 5  | .9                     | 107.                 | 99.9                | 3.6                    | 49.                  | 99.9                | 2.9                    | 129.                 | 99.9                | 61.6               | 59.8                       | .8                       | E                        | .6                     | E | .00 |
| 89 | 9  | 6   | 6  | 1.1                    | 98.                  | 99.9                | 4.2                    | 93.                  | 99.9                | 1.8                    | 83.                  | 99.9                | 61.0               | 59.8                       | .7                       | E                        | 1.4                    | E | .00 |
| 89 | 9  | 6   | 7  | 1.6                    | 61.                  | 99.9                | 4.5                    | 85.                  | 99.9                | 2.6                    | 31.                  | 99.9                | 60.5               | 59.3                       | .6                       | E                        | 1.2                    | E | .00 |
| 89 | 9  | 6   | 8  | 1.1                    | 98.                  | 99.9                | 3.4                    | 71.                  | 99.9                | 1.7                    | 145.                 | 99.9                | 61.6               | 59.8                       | -2.2                     | E                        | -2.2                   | E | .00 |
| 89 | 9  | 6   | 9  | 1.9                    | 91.                  | 99.9                | 2.7                    | 98.                  | 99.9                | 4.2                    | 189.                 | 99.9                | 65.3               | 60.4                       | -9.9                     | D                        | -1.9                   | D | .00 |
| 89 | 9  | 6   | 10 | 2.7                    | 348.                 | 99.9                | 2.0                    | 328.                 | 99.9                | 2.6                    | 141.                 | 99.9                | 68.5               | 61.3                       | -5.0                     | D                        | -1.9                   | D | .00 |
| 89 | 9  | 6   | 11 | 3.6                    | 306.                 | 99.9                | 2.9                    | 306.                 | 99.9                | 1.5                    | 117.                 | 99.9                | 71.8               | 61.7                       | -6.0                     | D                        | -1.8                   | D | .00 |
| 89 | 9  | 6   | 12 | 3.7                    | 208.                 | 99.9                | 5.6                    | 182.                 | 99.9                | 6.6                    | 184.                 | 99.9                | 76.5               | 60.4                       | -1.4                     | A                        | -3.6                   | D | .00 |
| 89 | 9  | 6   | 13 | 3.9                    | 185.                 | 99.9                | 5.8                    | 168.                 | 99.9                | 7.2                    | 149.                 | 99.9                | 79.6               | 59.0                       | -1.8                     | A                        | -4.3                   | C | .00 |
| 89 | 9  | 6   | 14 | 4.4                    | 175.                 | 99.9                | 3.9                    | 159.                 | 99.9                | 7.6                    | 151.                 | 99.9                | 80.3               | 60.0                       | -1.4                     | A                        | -3.8                   | D | .00 |
| 89 | 9  | 6   | 15 | 5.7                    | 220.                 | 99.9                | 7.5                    | 182.                 | 99.9                | 10.0                   | 185.                 | 99.9                | 81.4               | 59.1                       | -1.5                     | A                        | -4.0                   | C | .00 |
| 89 | 9  | 6   | 16 | 3.7                    | 192.                 | 99.9                | 5.6                    | 174.                 | 99.9                | 7.6                    | 174.                 | 99.9                | 81.9               | 58.5                       | -1.8                     | A                        | -3.9                   | C | .00 |
| 89 | 9  | 6   | 17 | 5.1                    | 193.                 | 99.9                | 7.9                    | 183.                 | 99.9                | 8.4                    | 179.                 | 99.9                | 82.1               | 57.6                       | -1.5                     | A                        | -3.6                   | D | .00 |
| 89 | 9  | 6   | 18 | 3.1                    | 173.                 | 99.9                | 6.6                    | 153.                 | 99.9                | 8.4                    | 163.                 | 99.9                | 82.4               | 58.2                       | -1.6                     | A                        | -3.8                   | D | .00 |
| 89 | 9  | 6   | 19 | 2.3                    | 168.                 | 99.9                | 5.3                    | 179.                 | 99.9                | 7.4                    | 186.                 | 99.9                | 79.0               | 59.8                       | .0                       | E                        | -1.6                   | D | .00 |
| 89 | 9  | 6   | 20 | 1.0                    | 129.                 | 99.9                | 5.6                    | 160.                 | 99.9                | 8.2                    | 171.                 | 99.9                | 72.4               | 62.1                       | 5.1                      | G                        | 4.1                    | F | .00 |
| 89 | 9  | 6   | 21 | 1.1                    | 148.                 | 99.9                | 3.0                    | 71.                  | 99.9                | 12.2                   | 165.                 | 99.9                | 69.0               | 62.2                       | 3.4                      | G                        | 7.3                    | F | .00 |
| 89 | 9  | 6   | 22 | 1.1                    | 174.                 | 99.9                | 1.7                    | 351.                 | 99.9                | 8.8                    | 162.                 | 99.9                | 66.4               | 62.1                       | 2.4                      | F                        | 8.1                    | F | .00 |
| 89 | 9  | 6   | 23 | 1.6                    | 92.                  | 99.9                | 4.7                    | 38.                  | 99.9                | 6.2                    | 103.                 | 99.9                | 65.0               | 61.5                       | 3.5                      | G                        | 4.4                    | F | .00 |
| 89 | 9  | 6   | 24 | 1.1                    | 121.                 | 99.9                | 3.8                    | 37.                  | 99.9                | 5.5                    | 119.                 | 99.9                | 63.6               | 61.3                       | 4.2                      | G                        | 3.8                    | E | .00 |
| 89 | 9  | 7   | 1  | 1.7                    | 56.                  | 99.9                | 3.7                    | 37.                  | 99.9                | 7.8                    | 137.                 | 99.9                | 64.4               | 61.7                       | 1.6                      | F                        | 2.0                    | E | .00 |
| 89 | 9  | 7   | 2  | 1.2                    | 152.                 | 99.9                | 2.9                    | 31.                  | 99.9                | 3.9                    | 130.                 | 99.9                | 64.1               | 62.1                       | 1.3                      | F                        | 2.1                    | E | .00 |
| 89 | 9  | 7   | 3  | 1.0                    | 135.                 | 99.9                | 3.6                    | 67.                  | 99.9                | 5.3                    | 145.                 | 99.9                | 64.7               | 63.0                       | 1.9                      | F                        | 1.0                    | E | .00 |
| 89 | 9  | 7   | 4  | 1.2                    | 19.                  | 99.9                | 3.7                    | 68.                  | 99.9                | 3.3                    | 129.                 | 99.9                | 65.3               | 63.4                       | 1.2                      | F                        | .1                     | E | .00 |
| 89 | 9  | 7   | 5  | .8                     | 149.                 | 99.9                | 1.8                    | 45.                  | 99.9                | 1.6                    | 154.                 | 99.9                | 64.7               | 63.4                       | .5                       | E                        | .4                     | E | .00 |
| 89 | 9  | 7   | 6  | 1.2                    | 167.                 | 99.9                | 1.9                    | 52.                  | 99.9                | 2.3                    | 108.                 | 99.9                | 64.5               | 63.8                       | .7                       | E                        | .4                     | E | .00 |



PROGRAM: LIST VERSION: PC-1.0

LISTING FOR BEAVER VALLEY HOURLY METEOROLOGICAL DATA 500-FT LEVEL BATCH RELEASES FOR THE THIRD QUARTER 1989

-----35 FT-----150 FT-----500 FT-----

| YR | MO | DY | HR | WIND<br>SPEED<br>(MPH) | WIND<br>DIR<br>(DEG) | STD<br>DEV<br>(DEG) | SC<br>(DEG) | WIND<br>SPEED<br>(MPH) | WIND<br>DIR<br>(DEG) | STD<br>DEV<br>(DEG) | SC<br>(DEG) | WIND<br>SPEED<br>(MPH) | WIND<br>DIR<br>(DEG) | STD<br>DEV<br>(DEG) | SC<br>(DEG) | AMB.<br>TEMP<br>3SF<br>(F) | DEW<br>POINT<br>3SF<br>(F) | DELTA T<br>150-35<br>(F) | DELTA T<br>500-35<br>(F) | RAIN<br>FALL<br>SC(IN) |
|----|----|----|----|------------------------|----------------------|---------------------|-------------|------------------------|----------------------|---------------------|-------------|------------------------|----------------------|---------------------|-------------|----------------------------|----------------------------|--------------------------|--------------------------|------------------------|
| 89 | 9  | 7  | 7  | 1.5                    | 50.                  | 99.9                | -           | 2.3                    | 42.                  | 99.9                | -           | 3.3                    | 133.                 | 99.9                | -           | 64.8                       | 64.3                       | -1.5                     | -2.5                     | .00                    |
| 89 | 9  | 7  | 8  | 1.5                    | 73.                  | 99.9                | -           | 2.3                    | 88.                  | 99.9                | -           | 3.2                    | 137.                 | 99.9                | -           | 65.1                       | 64.6                       | -0.5                     | -0.5                     | .00                    |
| 89 | 9  | 7  | 9  | 1.0                    | 64.                  | 99.9                | -           | 1.9                    | 77.                  | 99.9                | -           | 1.4                    | 212.                 | 99.9                | -           | 66.3                       | 65.1                       | -1.2                     | -1.2                     | .00                    |
| 89 | 9  | 7  | 10 | 1.7                    | 233.                 | 99.9                | -           | 1.9                    | 195.                 | 99.9                | -           | 5.9                    | 172.                 | 99.9                | -           | 68.9                       | 66.5                       | -2.4                     | -2.4                     | .00                    |
| 89 | 9  | 7  | 11 | 3.9                    | 257.                 | 99.9                | -           | 4.5                    | 235.                 | 99.9                | -           | 4.6                    | 205.                 | 99.9                | -           | 71.3                       | 67.9                       | -3.4                     | -3.4                     | .00                    |
| 89 | 9  | 7  | 12 | 2.9                    | 191.                 | 99.9                | -           | 6.1                    | 188.                 | 99.9                | -           | 8.3                    | 191.                 | 99.9                | -           | 74.0                       | 69.9                       | -4.0                     | -4.0                     | .00                    |
| 89 | 9  | 7  | 13 | 2.1                    | 179.                 | 99.9                | -           | 4.8                    | 170.                 | 99.9                | -           | 7.2                    | 180.                 | 99.9                | -           | 74.5                       | 69.8                       | -4.7                     | -4.7                     | .00                    |
| 89 | 9  | 7  | 14 | 1.6                    | 177.                 | 99.9                | -           | 5.0                    | 156.                 | 99.9                | -           | 8.3                    | 171.                 | 99.9                | -           | 75.0                       | 69.9                       | -5.0                     | -5.0                     | .00                    |
| 89 | 9  | 7  | 15 | 3.2                    | 199.                 | 99.9                | -           | 5.4                    | 175.                 | 99.9                | -           | 7.9                    | 184.                 | 99.9                | -           | 77.9                       | 69.6                       | -8.0                     | -8.0                     | .00                    |
| 89 | 9  | 7  | 16 | 4.0                    | 185.                 | 99.9                | -           | 8.8                    | 172.                 | 99.9                | -           | 11.1                   | 175.                 | 99.9                | -           | 78.3                       | 68.5                       | -9.3                     | -9.3                     | .00                    |
| 89 | 9  | 7  | 17 | 2.6                    | 257.                 | 99.9                | -           | 4.6                    | 277.                 | 99.9                | -           | 9.2                    | 261.                 | 99.9                | -           | 72.1                       | 70.7                       | -1.4                     | -1.4                     | .04                    |
| 89 | 9  | 7  | 18 | 4.2                    | 251.                 | 99.9                | -           | 6.4                    | 244.                 | 99.9                | -           | 10.9                   | 241.                 | 99.9                | -           | 74.8                       | 71.2                       | -3.6                     | -3.6                     | .00                    |
| 89 | 9  | 7  | 19 | 4.6                    | 244.                 | 99.9                | -           | 7.1                    | 250.                 | 99.9                | -           | 9.4                    | 243.                 | 99.9                | -           | 79.2                       | 71.5                       | -7.7                     | -7.7                     | .00                    |
| 89 | 9  | 7  | 20 | 5.3                    | 253.                 | 99.9                | -           | 8.0                    | 260.                 | 99.9                | -           | 9.7                    | 255.                 | 99.9                | -           | 81.9                       | 69.6                       | -12.0                    | -12.0                    | .00                    |
| 89 | 9  | 7  | 21 | 4.6                    | 255.                 | 99.9                | -           | 7.0                    | 263.                 | 99.9                | -           | 8.9                    | 258.                 | 99.9                | -           | 83.2                       | 69.6                       | -2.4                     | -2.4                     | .00                    |
| 89 | 9  | 7  | 22 | 5.9                    | 259.                 | 99.9                | -           | 6.9                    | 259.                 | 99.9                | -           | 11.9                   | 259.                 | 99.9                | -           | 84.0                       | 68.5                       | -7.0                     | -7.0                     | .00                    |
| 89 | 9  | 7  | 23 | 5.7                    | 251.                 | 99.9                | -           | 7.8                    | 250.                 | 99.9                | -           | 9.8                    | 242.                 | 99.9                | -           | 84.4                       | 68.0                       | -5.6                     | -5.6                     | .00                    |
| 89 | 9  | 7  | 24 | 4.6                    | 252.                 | 99.9                | -           | 6.6                    | 258.                 | 99.9                | -           | 8.4                    | 254.                 | 99.9                | -           | 83.8                       | 68.8                       | -4.8                     | -4.8                     | .00                    |
| 89 | 9  | 7  | 25 | 2.6                    | 203.                 | 99.9                | -           | 5.3                    | 210.                 | 99.9                | -           | 8.1                    | 219.                 | 99.9                | -           | 81.6                       | 70.8                       | -10.2                    | -10.2                    | .00                    |
| 89 | 9  | 7  | 26 | 3.0                    | 180.                 | 99.9                | -           | 6.1                    | 193.                 | 99.9                | -           | 9.5                    | 215.                 | 99.9                | -           | 76.2                       | 71.9                       | -4.7                     | -4.7                     | .00                    |
| 89 | 9  | 7  | 27 | 3.0                    | 203.                 | 99.9                | -           | 5.7                    | 197.                 | 99.9                | -           | 13.4                   | 226.                 | 99.9                | -           | 74.9                       | 71.1                       | -3.8                     | -3.8                     | .00                    |
| 89 | 9  | 7  | 28 | 2.4                    | 181.                 | 99.9                | -           | 6.2                    | 220.                 | 99.9                | -           | 15.7                   | 232.                 | 99.9                | -           | 73.8                       | 70.4                       | -3.4                     | -3.4                     | .00                    |
| 89 | 9  | 7  | 29 | 1.8                    | 191.                 | 99.9                | -           | 3.8                    | 217.                 | 99.9                | -           | 11.4                   | 215.                 | 99.9                | -           | 72.5                       | 70.1                       | -2.4                     | -2.4                     | .00                    |
| 89 | 9  | 7  | 30 | 1.3                    | 183.                 | 99.9                | -           | 3.6                    | 203.                 | 99.9                | -           | 5.1                    | 218.                 | 99.9                | -           | 70.6                       | 70.0                       | -0.6                     | -0.6                     | .00                    |
| 89 | 9  | 7  | 31 | 1.3                    | 217.                 | 99.9                | -           | 1.5                    | 246.                 | 99.9                | -           | 7.5                    | 201.                 | 99.9                | -           | 69.6                       | 69.6                       | 0.0                      | 0.0                      | .00                    |
| 89 | 9  | 7  | 32 | 1.1                    | 165.                 | 99.9                | -           | 1.3                    | 124.                 | 99.9                | -           | 2.9                    | 128.                 | 99.9                | -           | 68.6                       | 68.6                       | 0.0                      | 0.0                      | .00                    |
| 89 | 9  | 7  | 33 | 1.4                    | 71.                  | 99.9                | -           | 3.6                    | 26.                  | 99.9                | -           | 3.0                    | 153.                 | 99.9                | -           | 68.7                       | 68.7                       | 0.0                      | 0.0                      | .00                    |
| 89 | 9  | 7  | 34 | 1.0                    | 95.                  | 99.9                | -           | 1.5                    | 22.                  | 99.9                | -           | 3.0                    | 170.                 | 99.9                | -           | 67.9                       | 67.9                       | 0.0                      | 0.0                      | .00                    |
| 89 | 9  | 7  | 35 | .8                     | 167.                 | 99.9                | -           | 3.0                    | 25.                  | 99.9                | -           | 2.9                    | 160.                 | 99.9                | -           | 67.5                       | 67.5                       | 0.0                      | 0.0                      | .00                    |
| 89 | 9  | 7  | 36 | 1.5                    | 53.                  | 99.9                | -           | 2.3                    | 114.                 | 99.9                | -           | 10.4                   | 178.                 | 99.9                | -           | 67.3                       | 67.3                       | 0.0                      | 0.0                      | .00                    |
| 89 | 9  | 7  | 37 | 1.1                    | 124.                 | 99.9                | -           | 2.8                    | 183.                 | 99.9                | -           | 5.8                    | 204.                 | 99.9                | -           | 68.3                       | 68.3                       | 0.0                      | 0.0                      | .00                    |
| 89 | 9  | 7  | 38 | 1.1                    | 77.                  | 99.9                | -           | 1.6                    | 167.                 | 99.9                | -           | 3.7                    | 205.                 | 99.9                | -           | 69.1                       | 69.1                       | 0.0                      | 0.0                      | .00                    |
| 89 | 9  | 7  | 39 | 4.6                    | 223.                 | 99.9                | -           | 6.2                    | 216.                 | 99.9                | -           | 11.6                   | 218.                 | 99.9                | -           | 73.7                       | 69.9                       | -3.8                     | -3.8                     | .00                    |
| 89 | 9  | 7  | 40 | 3.6                    | 279.                 | 99.9                | -           | 5.3                    | 170.                 | 99.9                | -           | 9.6                    | 245.                 | 99.9                | -           | 77.3                       | 70.1                       | -7.2                     | -7.2                     | .00                    |
| 89 | 9  | 7  | 41 | 6.3                    | 253.                 | 99.9                | -           | 8.6                    | 247.                 | 99.9                | -           | 11.9                   | 232.                 | 99.9                | -           | 80.6                       | 68.5                       | -12.1                    | -12.1                    | .00                    |
| 89 | 9  | 7  | 42 | 6.6                    | 233.                 | 99.9                | -           | 9.1                    | 233.                 | 99.9                | -           | 12.1                   | 221.                 | 99.9                | -           | 82.1                       | 69.3                       | -2.8                     | -2.8                     | .00                    |
| 89 | 9  | 7  | 43 | 7.5                    | 238.                 | 99.9                | -           | 9.5                    | 230.                 | 99.9                | -           | 11.4                   | 221.                 | 99.9                | -           | 83.2                       | 69.1                       | -4.1                     | -4.1                     | .00                    |
| 89 | 9  | 7  | 44 | 8.2                    | 288.                 | 99.9                | -           | 11.1                   | 220.                 | 99.9                | -           | 14.1                   | 220.                 | 99.9                | -           | 84.5                       | 68.9                       | -5.6                     | -5.6                     | .00                    |
| 89 | 9  | 7  | 45 | 8.0                    | 233.                 | 99.9                | -           | 9.8                    | 233.                 | 99.9                | -           | 13.6                   | 226.                 | 99.9                | -           | 85.7                       | 68.0                       | -7.7                     | -7.7                     | .00                    |
| 89 | 9  | 7  | 46 | 7.3                    | 244.                 | 99.9                | -           | 10.0                   | 235.                 | 99.9                | -           | 12.4                   | 228.                 | 99.9                | -           | 86.6                       | 67.6                       | -9.0                     | -9.0                     | .00                    |
| 89 | 9  | 7  | 47 | 6.9                    | 233.                 | 99.9                | -           | 9.5                    | 220.                 | 99.9                | -           | 13.0                   | 221.                 | 99.9                | -           | 86.7                       | 67.8                       | -9.1                     | -9.1                     | .00                    |
| 89 | 9  | 7  | 48 | 5.2                    | 237.                 | 99.9                | -           | 7.7                    | 242.                 | 99.9                | -           | 10.9                   | 220.                 | 99.9                | -           | 85.8                       | 67.6                       | -8.2                     | -8.2                     | .00                    |
| 89 | 9  | 7  | 49 | 4.1                    | 187.                 | 99.9                | -           | 8.8                    | 178.                 | 99.9                | -           | 13.1                   | 189.                 | 99.9                | -           | 83.2                       | 69.0                       | -4.2                     | -4.2                     | .00                    |
| 89 | 9  | 7  | 50 | 2.6                    | 189.                 | 99.9                | -           | 6.4                    | 193.                 | 99.9                | -           | 11.0                   | 209.                 | 99.9                | -           | 78.7                       | 69.7                       | -8.0                     | -8.0                     | .00                    |
| 89 | 9  | 7  | 51 | 2.1                    | 163.                 | 99.9                | -           | 4.9                    | 194.                 | 99.9                | -           | 7.6                    | 218.                 | 99.9                | -           | 75.1                       | 69.3                       | -5.8                     | -5.8                     | .00                    |
| 89 | 9  | 7  | 52 | 2.1                    | 219.                 | 99.9                | -           | 5.3                    | 189.                 | 99.9                | -           | 16.3                   | 196.                 | 99.9                | -           | 73.4                       | 69.8                       | -3.6                     | -3.6                     | .00                    |
| 89 | 9  | 7  | 53 | 2.6                    | 192.                 | 99.9                | -           | 6.1                    | 201.                 | 99.9                | -           | 10.8                   | 219.                 | 99.9                | -           | 73.5                       | 69.4                       | -4.1                     | -4.1                     | .00                    |
| 89 | 9  | 7  | 54 | 1.6                    | 147.                 | 99.9                | -           | 4.9                    | 196.                 | 99.9                | -           | 11.1                   | 227.                 | 99.9                | -           | 71.8                       | 69.4                       | -2.4                     | -2.4                     | .00                    |

## LISTING FOR BEAVER VALLEY HOURLY METEOROLOGICAL DATA 500-FT LEVEL BATCH RELEASES FOR THE THIRD QUARTER 1989

| -----35 FT----- |    |    |    | -----150 FT----- |       |      |       | -----500 FT----- |       |       |       |      |      |       |         |         |      |                   |
|-----------------|----|----|----|------------------|-------|------|-------|------------------|-------|-------|-------|------|------|-------|---------|---------|------|-------------------|
| YR              | MO | DY | HR | WIND             | WIND  | STD  | WIND  | WIND             | STD   | WIND  | WIND  | STD  | AMB. | DEW   | DELTA T | DELTA T | RAIN |                   |
|                 |    |    |    | SPEED            | DIR   | DEV  | SPEED | DIR              | DEV   | SPEED | DIR   | DEV  | TEMP | POINT | 150-35  | 500-35  | FALL |                   |
|                 |    |    |    | (MPH)            | (DEG) | SC   | (DEG) | SC               | (DEG) | SC    | (DEG) | SC   | (F)  | (F)   | (F)     | SC      | (F)  | SC(IN)            |
| 89              | 9  | 10 | 1  | 3.0              | 197.  | 99.9 | -     | 5.6              | 201.  | 99.9  | -     | 12.2 | 233. | 99.9  | -       | 72.1    | 69.1 | 1.9 F 2.6 E .00   |
| 89              | 9  | 10 | 2  | 1.1              | 114.  | 99.9 | -     | 1.5              | 256.  | 99.9  | -     | 7.5  | 199. | 99.9  | -       | 70.2    | 69.5 | 2.2 F 2.4 E .00   |
| 89              | 9  | 10 | 3  | 3.6              | 211.  | 99.9 | -     | 6.9              | 199.  | 99.9  | -     | 13.2 | 218. | 99.9  | -       | 71.6    | 69.2 | .2 E 1.1 E .00    |
| 89              | 9  | 10 | 4  | 2.2              | 214.  | 99.9 | -     | 4.9              | 201.  | 99.9  | -     | 11.4 | 223. | 99.9  | -       | 70.7    | 69.0 | .9 E 1.7 E .00    |
| 89              | 9  | 10 | 5  | 1.1              | 184.  | 99.9 | -     | 3.8              | 200.  | 99.9  | -     | 8.6  | 228. | 99.9  | -       | 69.4    | 68.6 | 1.4 F 1.6 E .00   |
| 89              | 9  | 10 | 6  | 1.2              | 150.  | 99.9 | -     | .8               | 98.   | 99.9  | -     | 4.1  | 237. | 99.9  | -       | 68.1    | 68.1 | 2.2 F 2.0 E .00   |
| 89              | 9  | 10 | 7  | 1.1              | 145.  | 99.9 | -     | 1.6              | 170.  | 99.9  | -     | 4.6  | 251. | 99.9  | -       | 67.7    | 67.7 | 2.0 F 1.7 E .00   |
| 89              | 9  | 10 | 8  | 1.2              | 140.  | 99.9 | -     | 1.3              | 224.  | 99.9  | -     | 4.3  | 254. | 99.9  | -       | 69.6    | 69.1 | .7 E .0 E .00     |
| 89              | 9  | 10 | 9  | 3.3              | 255.  | 99.9 | -     | 4.4              | 251.  | 99.9  | -     | 7.5  | 244. | 99.9  | -       | 73.6    | 69.6 | -.5 D -2.4 D .00  |
| 89              | 9  | 10 | 10 | 3.3              | 234.  | 99.9 | -     | 5.0              | 245.  | 99.9  | -     | 6.0  | 249. | 99.9  | -       | 73.7    | 69.1 | -.6 D -2.5 D .00  |
| 89              | 9  | 10 | 11 | 3.6              | 276.  | 99.9 | -     | 4.8              | 268.  | 99.9  | -     | 6.0  | 257. | 99.9  | -       | 74.8    | 69.1 | -.8 D -2.6 D .00  |
| 89              | 9  | 10 | 12 | 4.6              | 257.  | 99.9 | -     | 7.3              | 262.  | 99.9  | -     | 8.6  | 265. | 99.9  | -       | 76.3    | 68.6 | -.9 D -2.8 D .00  |
| 89              | 9  | 10 | 13 | 3.5              | 256.  | 99.9 | -     | 5.1              | 271.  | 99.9  | -     | 6.0  | 271. | 99.9  | -       | 76.7    | 69.1 | -.8 D -2.8 D .00  |
| 89              | 9  | 10 | 14 | 3.8              | 247.  | 99.9 | -     | 5.3              | 252.  | 99.9  | -     | 7.5  | 248. | 99.9  | -       | 77.2    | 69.2 | -.5 D -2.4 D .00  |
| 89              | 9  | 10 | 15 | 3.4              | 270.  | 99.9 | -     | 5.7              | 272.  | 99.9  | -     | 7.7  | 263. | 99.9  | -       | 78.7    | 69.0 | -.7 D -2.6 D .00  |
| 89              | 9  | 10 | 16 | 4.1              | 308.  | 99.9 | -     | 9.1              | 296.  | 99.9  | -     | 10.9 | 295. | 99.9  | -       | 79.2    | 68.6 | -.7 D -2.6 D .00  |
| 89              | 9  | 10 | 17 | 3.8              | 289.  | 99.9 | -     | 5.9              | 301.  | 99.9  | -     | 9.1  | 318. | 99.9  | -       | 76.7    | 69.9 | -.6 D -2.5 D .00  |
| 89              | 9  | 10 | 18 | 2.7              | 141.  | 99.9 | -     | 4.3              | 62.   | 99.9  | -     | 3.7  | 16.  | 99.9  | -       | 72.7    | 67.9 | -.5 D -2.4 D .00  |
| 89              | 9  | 10 | 19 | 3.3              | 333.  | 99.9 | -     | 5.7              | 339.  | 99.9  | -     | 8.3  | 347. | 99.9  | -       | 71.8    | 67.7 | -.5 D -2.4 D .00  |
| 89              | 9  | 10 | 20 | 4.1              | 334.  | 99.9 | -     | 7.5              | 336.  | 99.9  | -     | 9.5  | 354. | 99.9  | -       | 69.7    | 67.0 | -.5 D -2.3 D .00  |
| 89              | 9  | 10 | 21 | 3.7              | 360.  | 99.9 | -     | 7.3              | 357.  | 99.9  | -     | 10.2 | 353. | 99.9  | -       | 68.5    | 66.0 | -.5 D -2.5 D .00  |
| 89              | 9  | 10 | 22 | 4.0              | 348.  | 99.9 | -     | 7.1              | 351.  | 99.9  | -     | 10.5 | 352. | 99.9  | -       | 67.4    | 64.8 | -.5 D -2.5 D .00  |
| 89              | 9  | 10 | 23 | 2.9              | 343.  | 99.9 | -     | 5.2              | 344.  | 99.9  | -     | 8.9  | 347. | 99.9  | -       | 67.3    | 64.2 | -.5 D -2.4 D .00  |
| 89              | 9  | 10 | 24 | 3.1              | 2.    | 99.9 | -     | 5.6              | 3.    | 99.9  | -     | 6.9  | 347. | 99.9  | -       | 66.8    | 64.1 | -.5 D -2.4 D .00  |
| 89              | 9  | 11 | 1  | 2.4              | 306.  | 99.9 | -     | 3.2              | 339.  | 99.9  | -     | 5.3  | 334. | 99.9  | -       | 66.3    | 63.3 | -.5 D -2.4 D .00  |
| 89              | 9  | 11 | 2  | 2.9              | 290.  | 99.9 | -     | 4.7              | 321.  | 99.9  | -     | 5.3  | 336. | 99.9  | -       | 65.8    | 63.1 | -.5 D -2.4 D .00  |
| 89              | 9  | 11 | 3  | 3.2              | 11.   | 99.9 | -     | 5.7              | 360.  | 99.9  | -     | 10.4 | 5.   | 99.9  | -       | 65.7    | 62.2 | -.5 D -2.1 D .00  |
| 89              | 9  | 11 | 4  | 2.6              | 276.  | 99.9 | -     | 3.5              | 340.  | 99.9  | -     | 7.6  | 1.   | 99.9  | -       | 65.5    | 62.3 | -.5 D -2.3 D .00  |
| 89              | 9  | 11 | 5  | 1.6              | 233.  | 99.9 | -     | 2.7              | 345.  | 99.9  | -     | 5.4  | 4.   | 99.9  | -       | 65.3    | 62.4 | -.4 D -2.1 D .00  |
| 89              | 9  | 11 | 6  | 2.0              | 31.   | 99.9 | -     | 3.9              | 27.   | 99.9  | -     | 7.4  | 13.  | 99.9  | -       | 65.2    | 62.5 | -.5 D -2.2 D .00  |
| 89              | 9  | 11 | 7  | 1.1              | 150.  | 99.9 | -     | 1.8              | 96.   | 99.9  | -     | 2.5  | 42.  | 99.9  | -       | 65.2    | 62.4 | -.3 E -2.0 D .00  |
| 89              | 9  | 11 | 8  | 1.1              | 16.   | 99.9 | -     | 1.5              | 331.  | 99.9  | -     | 3.6  | 352. | 99.9  | -       | 65.7    | 62.2 | -.5 D -2.3 D .00  |
| 89              | 9  | 11 | 9  | 2.0              | 41.   | 99.9 | -     | 4.1              | 48.   | 99.9  | -     | 4.9  | 50.  | 99.9  | -       | 67.3    | 62.1 | -.7 D -2.6 D .00  |
| 89              | 9  | 11 | 10 | 1.9              | 21.   | 99.9 | -     | 3.1              | 17.   | 99.9  | -     | 3.7  | 35.  | 99.9  | -       | 68.8    | 61.7 | -.8 D -2.9 D .00  |
| 89              | 9  | 11 | 11 | 1.9              | 252.  | 99.9 | -     | 2.6              | 14.   | 99.9  | -     | 4.5  | 340. | 99.9  | -       | 70.9    | 60.1 | -1.0 C -2.9 D .00 |
| 89              | 9  | 11 | 12 | 4.3              | 347.  | 99.9 | -     | 7.2              | 358.  | 99.9  | -     | 9.1  | 348. | 99.9  | -       | 72.5    | 57.9 | -.7 D -2.8 D .00  |
| 89              | 9  | 11 | 13 | 3.1              | 360.  | 99.9 | -     | 5.0              | 4.    | 99.9  | -     | 6.4  | 358. | 99.9  | -       | 73.9    | 57.9 | -1.0 C -3.1 D .00 |
| 89              | 9  | 11 | 14 | 4.1              | 279.  | 99.9 | -     | 4.4              | 306.  | 99.9  | -     | 4.7  | 349. | 99.9  | -       | 75.4    | 58.3 | -.9 D -3.0 D .00  |
| 89              | 9  | 11 | 15 | 3.7              | 309.  | 99.9 | -     | 5.3              | 312.  | 99.9  | -     | 6.7  | 322. | 99.9  | -       | 75.0    | 58.6 | -.9 D -3.0 D .00  |
| 89              | 9  | 11 | 16 | 3.9              | 298.  | 99.9 | -     | 6.4              | 307.  | 99.9  | -     | 7.3  | 315. | 99.9  | -       | 75.9    | 59.7 | -1.3 A -3.4 D .00 |
| 89              | 9  | 11 | 17 | 3.7              | 323.  | 99.9 | -     | 6.0              | 326.  | 99.9  | -     | 8.4  | 322. | 99.9  | -       | 76.3    | 58.8 | -1.0 C -3.2 D .00 |
| 89              | 9  | 11 | 18 | 2.1              | 299.  | 99.9 | -     | 2.5              | 339.  | 99.9  | -     | 4.8  | 340. | 99.9  | -       | 75.8    | 58.9 | -.7 D -2.8 D .00  |
| 89              | 9  | 11 | 19 | 1.3              | 73.   | 99.9 | -     | 2.4              | 351.  | 99.9  | -     | 7.3  | 5.   | 99.9  | -       | 74.0    | 60.9 | -.2 E -1.3 D .00  |
| 89              | 9  | 11 | 20 | 1.5              | 133.  | 99.9 | -     | 1.8              | 27.   | 99.9  | -     | 8.5  | 355. | 99.9  | -       | 68.0    | 62.1 | 2.6 G 4.0 F .00   |
| 89              | 9  | 11 | 21 | 1.5              | 137.  | 99.9 | -     | .9               | 332.  | 99.9  | -     | 3.3  | 348. | 99.9  | -       | 64.8    | 61.8 | 2.3 F 5.2 F .00   |
| 89              | 9  | 11 | 22 | 1.5              | 168.  | 99.9 | -     | 3.4              | 252.  | 99.9  | -     | 5.6  | 344. | 99.9  | -       | 65.8    | 62.0 | 2.5 F .8 E .00    |
| 89              | 9  | 11 | 23 | 1.4              | 233.  | 99.9 | -     | 2.6              | 315.  | 99.9  | -     | 6.4  | 358. | 99.9  | -       | 66.6    | 62.9 | .0 E -1.2 E .00   |
| 89              | 9  | 11 | 24 | .9               | 112.  | 99.9 | -     | 1.0              | 348.  | 99.9  | -     | 3.2  | 355. | 99.9  | -       | 63.5    | 62.7 | 1.8 F 1.2 E .00   |

PROGRAM: LIST      VERSION: PC-1.0

-----35 FT-----150 FT-----500 FT-----



PROGRAM: LIST      VERSION: PC-1.0

LISTING FOR BEAVER VALLEY HOURLY METEOROLOGICAL DATA 500-FT LEVEL BATCH RELEASES FOR THE THIRD QUARTER 1989

-----35 FT-----150 FT-----500 FT-----

| YR | MO | DY | HR | 35 FT                  |                      |                       | 150 FT                 |                      |                       | 500 FT                 |                      |                       | AMB.<br>TEMP<br>35F | DEW<br>POINT<br>35F | DELTA T<br>150-35<br>(F) | DELTA T<br>500-35<br>(F) | RAIN<br>FALL<br>SC(IN) |
|----|----|----|----|------------------------|----------------------|-----------------------|------------------------|----------------------|-----------------------|------------------------|----------------------|-----------------------|---------------------|---------------------|--------------------------|--------------------------|------------------------|
|    |    |    |    | WIND<br>SPEED<br>(MPH) | WIND<br>DIR<br>(DEG) | STD<br>DEV<br>SC(DEC) | WIND<br>SPEED<br>(MPH) | WIND<br>DIR<br>(DEG) | STD<br>DEV<br>SC(DEC) | WIND<br>SPEED<br>(MPH) | WIND<br>DIR<br>(DEG) | STD<br>DEV<br>SC(DEC) |                     |                     |                          |                          |                        |
| 89 | 9  | 19 | 21 | .7                     | 140.                 | 99.9 -                | 1.1                    | 144.                 | 99.9 -                | 1.3                    | 21.                  | 99.9 -                | 59.3                | 59.1                | 3.4 G                    | 7.0 F                    | .00                    |
| 89 | 9  | 19 | 22 | 1.3                    | 148.                 | 99.9 -                | 3.2                    | 197.                 | 99.9 -                | 4.1                    | 299.                 | 99.9 -                | 58.1                | 58.1                | 3.0 G                    | 4.7 F                    | .00                    |
| 89 | 9  | 19 | 23 | 1.5                    | 138.                 | 99.9 -                | 4.3                    | 202.                 | 99.9 -                | 3.1                    | 306.                 | 99.9 -                | 57.1                | 57.1                | 2.8 G                    | 5.6 F                    | .00                    |
| 89 | 9  | 19 | 24 | 1.0                    | 152.                 | 99.9 -                | 1.4                    | 91.                  | 99.9 -                | 1.6                    | 7.                   | 99.9 -                | 55.7                | 55.7                | 3.0 G                    | 5.7 F                    | .00                    |
| 89 | 9  | 20 | 1  | 1.0                    | 145.                 | 99.9 -                | 2.0                    | 12.                  | 99.9 -                | 1.8                    | 20.                  | 99.9 -                | 54.7                | 54.7                | 2.6 G                    | 4.7 F                    | .00                    |
| 89 | 9  | 20 | 2  | .9                     | 171.                 | 99.9 -                | .9                     | 135.                 | 99.9 -                | 1.7                    | 10.                  | 99.9 -                | 55.9                | 55.9                | 1.0 F                    | 2.1 E                    | .00                    |
| 89 | 9  | 20 | 3  | .9                     | 176.                 | 99.9 -                | 1.8                    | 356.                 | 99.9 -                | 1.4                    | 13.                  | 99.9 -                | 55.5                | 55.5                | .5 E                     | 1.9 E                    | .00                    |
| 89 | 9  | 20 | 13 | 3.8                    | 15.                  | 99.9 -                | 5.4                    | 30.                  | 99.9 -                | 5.4                    | 44.                  | 99.9 -                | 74.2                | 55.4                | -1.1 B                   | -3.4 D                   | .00                    |
| 89 | 9  | 20 | 14 | 4.6                    | 3.                   | 99.9 -                | 7.5                    | 25.                  | 99.9 -                | 8.6                    | 40.                  | 99.9 -                | 76.4                | 55.3                | -1.3 A                   | -3.6 D                   | .00                    |
| 89 | 9  | 20 | 15 | 3.0                    | 100.                 | 99.9 -                | 5.0                    | 76.                  | 99.9 -                | 6.7                    | 66.                  | 99.9 -                | 78.6                | 55.5                | -1.5 A                   | -4.1 C                   | .00                    |
| 89 | 9  | 20 | 16 | 3.4                    | 94.                  | 99.9 -                | 5.9                    | 71.                  | 99.9 -                | 8.0                    | 67.                  | 99.9 -                | 79.2                | 55.8                | -1.3 A                   | -3.7 D                   | .00                    |
| 89 | 9  | 20 | 17 | 3.1                    | 16.                  | 99.9 -                | 6.1                    | 33.                  | 99.9 -                | 7.0                    | 38.                  | 99.9 -                | 79.2                | 57.5                | -1.3 A                   | -3.7 D                   | .00                    |

Table 1  
Beaver Valley Meteorological Data Recovery  
Fourth Quarter 1989

|                            | <u>Continuous<br/>Release</u> | <u>Batch<br/>Release</u> | <u>Comments</u>                                                                    |
|----------------------------|-------------------------------|--------------------------|------------------------------------------------------------------------------------|
| Joint delta-T (150ft-35ft) | 99.9%                         | 100.0%                   | There were only 2 hours of data loss for all parameters due to a computer problem. |
| Joint delta-T (500ft-35ft) | 99.9%                         | 100.0%                   | There were only 2 hours of data loss for all parameters due to a computer problem. |

Beaver Valley  
Joint Frequency Distribution Tables  
for  
Continuous Releases

Delta T (150ft-35ft) and 35-Ft Wind  
and  
Delta T (500ft-35ft) and 500-Ft Wind

Fourth Quarter 1989



PROGRAM: JFD VERSION: PC-1.0

BEAVER VALLEY JFD - GROUND LEVEL CONTINUOUS RELEASE

SITE IDENTIFIER: DLBV2

DATA PERIOD EXAMINED: 10/ 1/89 - 12/31/89

\*\*\* 4TH QTR 1989 \*\*\*

STABILITY CLASS A  
 STABILITY BASED ON: DELTA T BETWEEN 150.0 AND 35.0 FEET  
 WIND MEASURED AT: 35.0 FEET  
 WIND THRESHOLD AT: .75 MPH  
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

| SPEED<br>(MPH) | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | TOTAL |
|----------------|---|-----|----|-----|---|-----|----|-----|---|-----|----|-----|---|-----|----|-----|-------|
| CALM           |   |     |    |     |   |     |    |     |   |     |    |     |   |     |    |     | 0     |
| .76- 3.50      | 0 | 0   | 1  | 2   | 0 | 1   | 0  | 0   | 0 | 0   | 0  | 0   | 1 | 0   | 0  | 0   | 5     |
| 3.51- 7.50     | 0 | 0   | 0  | 0   | 1 | 1   | 1  | 1   | 0 | 0   | 1  | 1   | 2 | 2   | 0  | 0   | 10    |
| 7.51-12.50     | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 1 | 0   | 0  | 9   | 1 | 0   | 0  | 0   | 11    |
| 12.51-18.50    | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 18.51-24.00    | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| >24.00         | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| TOTAL          | 0 | 0   | 1  | 2   | 1 | 2   | 1  | 1   | 1 | 0   | 1  | 10  | 4 | 2   | 0  | 0   | 26    |

STABILITY CLASS B  
 STABILITY BASED ON: DELTA T BETWEEN 150.0 AND 35.0 FEET  
 WIND MEASURED AT: 35.0 FEET  
 WIND THRESHOLD AT: .75 MPH  
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

| SPEED<br>(MPH) | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | TOTAL |
|----------------|---|-----|----|-----|---|-----|----|-----|---|-----|----|-----|---|-----|----|-----|-------|
| CALM           |   |     |    |     |   |     |    |     |   |     |    |     |   |     |    |     | 0     |
| .76- 3.50      | 0 | 0   | 0  | 0   | 1 | 0   | 0  | 1   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 2     |
| 3.51- 7.50     | 0 | 0   | 0  | 0   | 0 | 0   | 1  | 0   | 0 | 0   | 2  | 2   | 4 | 4   | 0  | 0   | 13    |
| 7.51-12.50     | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 1  | 1   | 1 | 0   | 0  | 0   | 3     |
| 12.51-18.50    | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 18.51-24.00    | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| >24.00         | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| TOTAL          | 0 | 0   | 0  | 0   | 1 | 0   | 1  | 1   | 0 | 0   | 3  | 3   | 5 | 4   | 0  | 0   | 18    |

PROGRAM: JFD VERSION: PC-1.0

BEAVER VALLEY JFD - GROUND LEVEL CONTINUOUS RELEASE

SITE IDENTIFIER: DL8V2

DATA PERIOD EXAMINED: 10/ 1/89 - 12/31/89

\*\*\* 4TH QTR 1989 \*\*\*

## STABILITY CLASS C

STABILITY BASED ON: DELTA T BETWEEN 150.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: .75 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

| SPEED<br>(MPH) | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | TOTAL |
|----------------|---|-----|----|-----|---|-----|----|-----|---|-----|----|-----|---|-----|----|-----|-------|
| CALM           | 0 | 1   | 0  | 1   | 1 | 0   | 0  | 0   | 0 | 0   | 0  | 1   | 0 | 0   | 0  | 1   | 0     |
| .76- 3.50      | 1 | 0   | 0  | 0   | 1 | 0   | 0  | 0   | 1 | 2   | 0  | 4   | 6 | 5   | 1  | 2   | 5     |
| 3.51- 7.50     | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 1  | 4   | 2 | 0   | 0  | 0   | 24    |
| 7.51-12.50     | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 2 | 0   | 1  | 4   | 2 | 0   | 0  | 0   | 9     |
| 12.51-18.50    | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 1   | 0 | 0   | 0  | 0   | 1     |
| 18.51-24.00    | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| >24.00         | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| TOTAL          | 1 | 1   | 0  | 1   | 2 | 0   | 0  | 0   | 3 | 2   | 2  | 10  | 8 | 5   | 1  | 3   | 39    |

## STABILITY CLASS D

STABILITY BASED ON: DELTA T BETWEEN 150.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: .75 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

| SPEED<br>(MPH) | N  | NNE | NE | ENE | E  | ESE | SE | SSE | S  | SSW | SW  | WSW | W   | WNW | NW | NNW | TOTAL |
|----------------|----|-----|----|-----|----|-----|----|-----|----|-----|-----|-----|-----|-----|----|-----|-------|
| CALM           | 10 | 11  | 24 | 24  | 11 | 15  | 7  | 4   | 5  | 14  | 9   | 21  | 18  | 15  | 13 | 9   | 210   |
| .76- 3.50      | 17 | 6   | 3  | 11  | 3  | 0   | 1  | 4   | 9  | 20  | 48  | 138 | 88  | 61  | 59 | 26  | 494   |
| 3.51- 7.50     | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 3  | 3   | 41  | 148 | 32  | 17  | 11 | 1   | 256   |
| 7.51-12.50     | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 3   | 16  | 0   | 0   | 0  | 0   | 19    |
| 12.51-18.50    | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0   | 0   | 0   | 0   | 0  | 0   | 0     |
| 18.51-24.00    | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0   | 0   | 0   | 0   | 0  | 0   | 0     |
| >24.00         | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0   | 0   | 0   | 0   | 0  | 0   | 0     |
| TOTAL          | 27 | 17  | 27 | 35  | 14 | 15  | 8  | 8   | 17 | 37  | 101 | 323 | 138 | 93  | 83 | 36  | 981   |

PROGRAM: JFD VERSION: PC-1.0

BEAVER VALLEY JFD - GROUND LEVEL CONTINUOUS RELEASE

SITE IDENTIFIER: DLBV2

DATA PERIOD EXAMINED: 10/ 1/89 - 12/31/89

\*\*\* 4TH QTR 1989 \*\*\*

## STABILITY CLASS E

STABILITY BASED ON: DELTA T BETWEEN 150.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: .75 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

| SPEED<br>(MPH) | N  | NNE | NE | ENE | E  | ESE | SE | SSE | S  | SSW | SW | WSW | W  | WNW | NW | NNW | TOTAL |
|----------------|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|-------|
| CALM           |    |     |    |     |    |     |    |     |    |     |    |     |    |     |    |     | 17    |
| .76- 3.50      | 17 | 20  | 30 | 21  | 27 | 27  | 20 | 19  | 34 | 36  | 17 | 16  | 28 | 12  | 12 | 14  | 350   |
| 3.51- 7.50     | 4  | 0   | 4  | 2   | 2  | 0   | 2  | 9   | 11 | 34  | 51 | 76  | 21 | 7   | 6  | 4   | 233   |
| 7.51-12.50     | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 5   | 13 | 22  | 1  | 0   | 0  | 0   | 41    |
| 12.51-18.50    | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 1  | 0   | 1  | 0   | 1  | 0   | 3     |
| 18.51-24.00    | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0     |
| >24.00         | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0     |
| TOTAL          | 21 | 20  | 34 | 23  | 29 | 27  | 22 | 28  | 45 | 75  | 82 | 114 | 51 | 19  | 19 | 18  | 644   |

## STABILITY CLASS F

STABILITY BASED ON: DELTA T BETWEEN 150.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: .75 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

| SPEED<br>(MPH) | N | NNE | NE | ENE | E  | ESE | SE | SSE | S  | SSW | SW | WSW | W | WNW | NW | NNW | TOTAL |
|----------------|---|-----|----|-----|----|-----|----|-----|----|-----|----|-----|---|-----|----|-----|-------|
| CALM           |   |     |    |     |    |     |    |     |    |     |    |     |   |     |    |     | 22    |
| .76- 3.50      | 4 | 0   | 4  | 7   | 22 | 31  | 30 | 46  | 31 | 17  | 8  | 6   | 4 | 5   | 2  | 4   | 221   |
| 3.51- 7.50     | 0 | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 5  | 8   | 2  | 0   | 0 | 0   | 0  | 0   | 15    |
| 7.51-12.50     | 0 | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 1   | 0  | 0   | 0 | 0   | 0  | 0   | 1     |
| 12.51-18.50    | 0 | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 18.51-24.00    | 0 | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| >24.00         | 0 | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| TOTAL          | 4 | 0   | 4  | 7   | 22 | 31  | 30 | 46  | 36 | 26  | 10 | 6   | 4 | 5   | 2  | 4   | 259   |



PROGRAM: JFD VERSION: PC-1.0

BEAVER VALLEY JFD - GROUND LEVEL CONTINUOUS RELEASE

SITE IDENTIFIER: DIBV2

DATA PERIOD EXAMINED: 10/ 1/89 - 12/31/89

\*\*\* 4TH QTR 1989 \*\*\*

STABILITY CLASS G  
 STABILITY BASED ON: DELTA T BETWEEN 150.0 AND 35.0 FEET  
 WIND MEASURED AT: 35.0 FEET  
 WIND THRESHOLD AT: .75 MPH  
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET  
 SPEED

| (MPH)       | N | NNE | NE | ENE | E  | ESE | SE | SSE | S  | SSW | SW | WSW | W | WNW | NW | NNW | TOTAL |
|-------------|---|-----|----|-----|----|-----|----|-----|----|-----|----|-----|---|-----|----|-----|-------|
| CALM        | 2 | 1   | 3  | 8   | 11 | 16  | 81 | 60  | 20 | 9   | 2  | 0   | 1 | 0   | 1  | 4   | 15    |
| .76- 3.50   | 0 | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 2  | 3   | 0  | 0   | 0 | 0   | 0  | 0   | 219   |
| 3.51- 7.50  | 0 | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 5     |
| 7.51-12.50  | 0 | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 12.51-18.50 | 0 | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 18.51-24.00 | 0 | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| >24.00      | 0 | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| TOTAL       | 2 | 1   | 3  | 8   | 11 | 16  | 81 | 60  | 22 | 12  | 2  | 0   | 1 | 0   | 1  | 4   | 239   |

STABILITY CLASS ALL  
 STABILITY BASED ON: DELTA T BETWEEN 150.0 AND 35.0 FEET  
 WIND MEASURED AT: 35.0 FEET  
 WIND THRESHOLD AT: .75 MPH  
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET  
 SPEED

| (MPH)       | N  | NNE | NE | ENE | E  | ESE | SE  | SSE | S   | SSW | SW  | WSW | W   | WNW | NW  | NNW | TOTAL |
|-------------|----|-----|----|-----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|
| CALM        | 33 | 33  | 62 | 63  | 73 | 90  | 138 | 130 | 90  | 76  | 36  | 44  | 52  | 32  | 28  | 32  | 56    |
| .76- 3.50   | 22 | 6   | 7  | 13  | 7  | 1   | 5   | 14  | 19  | 67  | 105 | 221 | 121 | 79  | 66  | 32  | 1012  |
| 3.51- 7.50  | 0  | 0   | 0  | 0   | 0  | 0   | 0   | 0   | 6   | 9   | 56  | 184 | 37  | 17  | 11  | 1   | 794   |
| 7.51-12.50  | 0  | 0   | 0  | 0   | 0  | 0   | 0   | 0   | 0   | 0   | 4   | 17  | 1   | 0   | 1   | 0   | 321   |
| 12.51-18.50 | 0  | 0   | 0  | 0   | 0  | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 23    |
| 18.51-24.00 | 0  | 0   | 0  | 0   | 0  | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0     |
| >24.00      | 0  | 0   | 0  | 0   | 0  | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0     |
| TOTAL       | 55 | 39  | 69 | 76  | 80 | 91  | 143 | 144 | 124 | 152 | 201 | 466 | 211 | 128 | 106 | 65  | 2206  |

PROGRAM: JFD VERSION: PC-1.0

WEAVER VALLEY JFD - GROUND LEVEL CONTINUOUS RELEASE

SITE IDENTIFIER: DLBV2

DATA PERIOD EXAMINED: 10/ 1/89 - 12/31/89

\*\*\* 4TH QTR 1989 \*\*\*

STABILITY BASED ON: DELTA T BETWEEN 150.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: .75 MPH

TOTAL NUMBER OF OBSERVATIONS: 2208

TOTAL NUMBER OF VALID OBSERVATIONS: 2206

TOTAL NUMBER OF MISSING OBSERVATIONS: 2

PERCENT DATA RECOVERY FOR THIS PERIOD: 99.9 %

MEAN WIND SPEED FOR THIS PERIOD: 4.4 MPH

TOTAL NUMBER OF OBSERVATIONS WITH BACKUP DATA: 0

## PERCENTAGE OCCURRENCE OF STABILITY CLASSES

| A    | B   | C    | D     | E     | F     | G     |
|------|-----|------|-------|-------|-------|-------|
| 1.18 | .82 | 1.77 | 44.47 | 29.19 | 11.74 | 10.83 |

## DISTRIBUTION OF WIND DIRECTION VS STABILITY

|       | N  | NNE | NE | ENE | E  | ESE | SE  | SSE | S   | SSW | SW  | WSW | W   | WNW | NW  | NNW | CALM |
|-------|----|-----|----|-----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|
| A     | 0  | 0   | 1  | 2   | 1  | 2   | 1   | 1   | 1   | 0   | 1   | 10  | 4   | 2   | 0   | 0   | 0    |
| B     | 0  | 0   | 0  | 0   | 1  | 0   | 1   | 1   | 0   | 0   | 3   | 3   | 5   | 4   | 0   | 0   | 0    |
| C     | 1  | 1   | 0  | 1   | 2  | 0   | 0   | 0   | 3   | 2   | 2   | 10  | 8   | 5   | 1   | 3   | 0    |
| D     | 27 | 17  | 27 | 35  | 14 | 15  | 8   | 8   | 17  | 37  | 101 | 323 | 138 | 93  | 83  | 36  | 2    |
| E     | 21 | 20  | 34 | 23  | 29 | 27  | 22  | 28  | 45  | 75  | 82  | 114 | 51  | 19  | 19  | 18  | 17   |
| F     | 4  | 0   | 4  | 7   | 22 | 31  | 30  | 46  | 36  | 26  | 10  | 6   | 4   | 5   | 2   | 4   | 22   |
| G     | 2  | 1   | 3  | 8   | 11 | 16  | 81  | 60  | 22  | 12  | 2   | 0   | 1   | 0   | 1   | 4   | 15   |
| TOTAL | 55 | 39  | 69 | 76  | 80 | 91  | 143 | 144 | 124 | 152 | 201 | 466 | 211 | 128 | 106 | 65  | 56   |

PROGRAM: JFD VERSION: PC-1.0

BEAVER VALLEY JFD - ELEVATED CONTINUOUS RELEASE

SITE IDENTIFIER: DLBVZ

DATA PERIOD EXAMINED: 10/ 1/89 - 12/31/89

\*\*\* 4TH QTR 1989 \*\*\*

## STABILITY CLASS A

STABILITY BASED ON: DELTA T

WIND MEASURED AT: 500.0 FEET

WIND THRESHOLD AT: .75 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 500.00 FEET

| SPEED<br>(MPH) | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | TOTAL |
|----------------|---|-----|----|-----|---|-----|----|-----|---|-----|----|-----|---|-----|----|-----|-------|
| CALM           | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| .76- 3.50      | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 3.51- 7.50     | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 7.51-12.50     | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 12.51-18.50    | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 18.51-24.00    | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| >24.00         | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| TOTAL          | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |

## STABILITY CLASS B

STABILITY BASED ON: DELTA T

WIND MEASURED AT: 500.0 FEET

WIND THRESHOLD AT: .75 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 500.00 FEET

| SPEED<br>(MPH) | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | TOTAL |
|----------------|---|-----|----|-----|---|-----|----|-----|---|-----|----|-----|---|-----|----|-----|-------|
| CALM           | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| .76- 3.50      | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 3.51- 7.50     | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 7.51-12.50     | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 12.51-18.50    | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 18.51-24.00    | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| >24.00         | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 1 | 0   | 0  | 0   | 1     |
| TOTAL          | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 1 | 0   | 0  | 0   | 1     |



PROGRAM: JFD VERSION: PC-1.0

BEAVER VALLEY JFD - ELEVATED CONTINUOUS RELEASE

SITE IDENTIFIER: DLBV2

DATA PERIOD EXAMINED: 10/ 1/89 - 12/31/89

\*\*\* 4TH QTR 1989 \*\*\*

STABILITY CLASS C  
 STABILITY BASED ON: DELTA T BETWEEN 500.0 AND 35.0 FEET  
 WIND MEASURED AT: 500.0 FEET  
 WIND THRESHOLD AT: .75 MPH  
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 500.00 FEET

| SPEED<br>(MPH) | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | TOTAL |
|----------------|---|-----|----|-----|---|-----|----|-----|---|-----|----|-----|---|-----|----|-----|-------|
| CALM           |   |     |    |     |   |     |    |     |   |     |    |     |   |     |    |     | 0     |
| .76- 3.50      | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 3.51- 7.50     | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 7.51-12.50     | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 12.51-18.50    | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 1   | 0  | 0   | 1     |
| 18.51-24.00    | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| >24.00         | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| TOTAL          | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 1   | 0  | 0   | 1     |

STABILITY CLASS D  
 STABILITY BASED ON: DELTA T BETWEEN 500.0 AND 35.0 FEET  
 WIND MEASURED AT: 500.0 FEET  
 WIND THRESHOLD AT: .75 MPH  
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 500.00 FEET

| SPEED<br>(MPH) | N  | NNE | NE | ENE | E  | ESE | SE | SSE | S  | SSW | SW  | WSW | W   | WNW | NW | NNW | TOTAL |
|----------------|----|-----|----|-----|----|-----|----|-----|----|-----|-----|-----|-----|-----|----|-----|-------|
| CALM           |    |     |    |     |    |     |    |     |    |     |     |     |     |     |    |     | 1     |
| .76- 3.50      | 2  | 1   | 0  | 4   | 2  | 0   | 4  | 2   | 0  | 3   | 5   | 4   | 3   | 4   | 2  | 1   | 37    |
| 3.51- 7.50     | 4  | 1   | 4  | 12  | 8  | 15  | 9  | 4   | 8  | 9   | 11  | 15  | 34  | 35  | 12 | 8   | 189   |
| 7.51-12.50     | 16 | 2   | 7  | 22  | 16 | 12  | 8  | 12  | 14 | 23  | 47  | 67  | 91  | 54  | 31 | 52  | 474   |
| 12.51-18.50    | 7  | 3   | 6  | 6   | 3  | 2   | 6  | 6   | 16 | 20  | 84  | 131 | 102 | 61  | 21 | 3   | 478   |
| 18.51-24.00    | 0  | 0   | 1  | 0   | 0  | 0   | 0  | 4   | 5  | 6   | 28  | 45  | 49  | 28  | 5  | 0   | 171   |
| >24.00         | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 1   | 0  | 1   | 1   | 12  | 8   | 14  | 2  | 0   | 39    |
| TOTAL          | 30 | 7   | 18 | 44  | 29 | 29  | 27 | 29  | 43 | 62  | 176 | 274 | 287 | 196 | 73 | 64  | 1389  |

PROGRAM: JFD VERSION: PC-1.0

BEAVER VALLEY JFD - ELEVATED CONTINUOUS RELEASE

SITE IDENTIFIER: DLBV2

DATA PERIOD EXAMINED: 10/ 1/89 - 12/31/89

\*\*\* 4TH QTR 1989 \*\*\*

STABILITY CLASS E  
 STABILITY BASED ON: DELTA T BETWEEN 500.0 AND 35.0 FEET  
 WIND MEASURED AT: 500.0 FEET  
 WIND THRESHOLD AT: .75 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 500.00 FEET

| SPEED<br>(MPH) | N | NNE | NE | ENE | E  | ESE | SE | SSE | S  | SSW | SW | WSW | W  | WNW | NW | NNW | TOTAL |
|----------------|---|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|-------|
| CALM           |   |     |    |     |    |     |    |     |    |     |    |     |    |     |    |     | 1     |
| .76- 3.50      | 3 | 5   | 5  | 5   | 9  | 4   | 2  | 9   | 6  | 7   | 2  | 6   | 3  | 3   | 3  | 1   | 73    |
| 3.51- 7.50     | 0 | 1   | 3  | 5   | 18 | 15  | 16 | 9   | 5  | 13  | 5  | 15  | 25 | 10  | 4  | 1   | 145   |
| 7.51-12.50     | 1 | 0   | 1  | 8   | 7  | 13  | 8  | 7   | 10 | 6   | 19 | 21  | 29 | 6   | 3  | 5   | 144   |
| 12.51-18.50    | 0 | 0   | 1  | 1   | 1  | 1   | 0  | 7   | 13 | 9   | 18 | 13  | 5  | 3   | 4  | 2   | 78    |
| 18.51-24.00    | 0 | 0   | 0  | 0   | 0  | 0   | 0  | 3   | 4  | 7   | 9  | 1   | 0  | 0   | 0  | 0   | 24    |
| >24.00         | 0 | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 1  | 1   | 0  | 0   | 0  | 0   | 0  | 0   | 2     |
| TOTAL          | 4 | 6   | 10 | 19  | 35 | 33  | 26 | 35  | 39 | 43  | 53 | 56  | 62 | 22  | 14 | 9   | 467   |

STABILITY CLASS F  
 STABILITY BASED ON: DELTA T BETWEEN 500.0 AND 35.0 FEET  
 WIND MEASURED AT: 500.0 FEET  
 WIND THRESHOLD AT: .75 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 500.00 FEET

| SPEED<br>(MPH) | N | NNE | NE | ENE | E  | ESE | SE | SSE | S  | SSW | SW | WSW | W  | WNW | NW | NNW | TOTAL |
|----------------|---|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|-------|
| CALM           |   |     |    |     |    |     |    |     |    |     |    |     |    |     |    |     | 12    |
| .76- 3.50      | 1 | 6   | 9  | 13  | 19 | 11  | 5  | 4   | 4  | 4   | 7  | 10  | 3  | 5   | 5  | 1   | 107   |
| 3.51- 7.50     | 1 | 0   | 2  | 7   | 5  | 12  | 8  | 6   | 8  | 6   | 6  | 7   | 8  | 4   | 2  | 0   | 82    |
| 7.51-12.50     | 0 | 0   | 0  | 1   | 5  | 0   | 5  | 4   | 15 | 6   | 12 | 8   | 1  | 1   | 0  | 0   | 58    |
| 12.51-18.50    | 1 | 0   | 0  | 0   | 0  | 1   | 1  | 1   | 6  | 5   | 8  | 1   | 0  | 0   | 0  | 0   | 24    |
| 18.51-24.00    | 0 | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 3  | 0   | 0  | 0   | 0  | 0   | 3     |
| >24.00         | 0 | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0  | 0   | 0     |
| TOTAL          | 3 | 6   | 11 | 21  | 29 | 24  | 19 | 15  | 33 | 21  | 36 | 26  | 12 | 10  | 7  | 1   | 286   |

PROGRAM: JFD VERSION: PC-1.0

BEAVER VALLEY JFD - ELEVATED CONTINUOUS RELEASE

SITE IDENTIFIER: DLBV2

DATA PERIOD EXAMINED: 10/ 1/89 - 12/31/89

\*\*\* 4TH QTR 1989 \*\*\*

## STABILITY CLASS G

STABILITY BASED ON: DELTA T BETWEEN 500.0 AND 35.0 FEET

WIND MEASURED AT: 500.0 FEET

WIND THRESHOLD AT: .75 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 500.00 FEET

| SPEED<br>(MPH) | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | TOTAL |
|----------------|---|-----|----|-----|---|-----|----|-----|---|-----|----|-----|---|-----|----|-----|-------|
| CALM           |   |     |    |     |   |     |    |     |   |     |    |     |   |     |    |     | 3     |
| .76- 3.50      | 1 | 2   | 1  | 3   | 3 | 2   | 1  | 2   | 3 | 4   | 0  | 0   | 1 | 0   | 0  | 2   | 25    |
| 3.51- 7.50     | 0 | 0   | 0  | 0   | 5 | 4   | 2  | 4   | 0 | 4   | 1  | 0   | 0 | 0   | 0  | 0   | 20    |
| 7.51-12.50     | 0 | 0   | 0  | 0   | 0 | 0   | 1  | 1   | 0 | 2   | 2  | 0   | 0 | 0   | 0  | 0   | 6     |
| 12.51-18.50    | 0 | 0   | 0  | 0   | 0 | 0   | 2  | 2   | 0 | 2   | 2  | 0   | 0 | 0   | 0  | 0   | 8     |
| 18.51-24.00    | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| >24.00         | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| TOTAL          | 1 | 2   | 1  | 3   | 8 | 6   | 6  | 9   | 3 | 12  | 5  | 0   | 1 | 0   | 0  | 2   | 62    |

## STABILITY CLASS ALL

STABILITY BASED ON: DELTA T BETWEEN 500.0 AND 35.0 FEET

WIND MEASURED AT: 500.0 FEET

WIND THRESHOLD AT: .75 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 500.00 FEET

| SPEED<br>(MPH) | N  | NNE | NE | ENE | E   | ESE | SE | SSE | S   | SSW | SW  | WSW | W   | WNW | NW | NNW | TOTAL |
|----------------|----|-----|----|-----|-----|-----|----|-----|-----|-----|-----|-----|-----|-----|----|-----|-------|
| CALM           |    |     |    |     |     |     |    |     |     |     |     |     |     |     |    |     | 17    |
| .76- 3.50      | 7  | 14  | 15 | 25  | 33  | 17  | 12 | 17  | 13  | 18  | 14  | 20  | 10  | 12  | 10 | 5   | 242   |
| 3.51- 7.50     | 5  | 2   | 9  | 24  | 36  | 46  | 35 | 23  | 21  | 32  | 23  | 37  | 67  | 49  | 18 | 9   | 436   |
| 7.51-12.50     | 17 | 2   | 8  | 31  | 28  | 25  | 22 | 24  | 39  | 37  | 80  | 96  | 121 | 61  | 34 | 57  | 682   |
| 12.51-18.50    | 9  | 3   | 7  | 7   | 4   | 4   | 9  | 16  | 35  | 36  | 112 | 145 | 107 | 65  | 25 | 5   | 589   |
| 18.51-24.00    | 0  | 0   | 1  | 0   | 0   | 0   | 0  | 7   | 9   | 13  | 40  | 46  | 49  | 28  | 5  | 0   | 198   |
| >24.00         | 0  | 0   | 0  | 0   | 0   | 0   | 0  | 1   | 1   | 2   | 1   | 12  | 9   | 14  | 2  | 0   | 42    |
| TOTAL          | 38 | 21  | 40 | 87  | 101 | 92  | 78 | 88  | 118 | 138 | 270 | 356 | 363 | 229 | 94 | 76  | 2206  |



PROGRAM: JFD VERSION: PC-1.0

BEAVER VALLEY JFD - ELEVATED CONTINUOUS RELEASE

SITE IDENTIFIER: DLBV2

DATA PERIOD EXAMINED: 10/ 1/89 - 12/31/89

\*\*\* 4TH QTR 1989 \*\*\*

STABILITY BASED ON: DELTA T BETWEEN 500.0 AND 35.0 FEET

WIND MEASURED AT: 500.0 FEET

WIND THRESHOLD AT: .75 MPH

TOTAL NUMBER OF OBSERVATIONS: 2208

TOTAL NUMBER OF VALID OBSERVATIONS: 2206

TOTAL NUMBER OF MISSING OBSERVATIONS: 2

PERCENT DATA RECOVERY FOR THIS PERIOD: 99.9 %

MEAN WIND SPEED FOR THIS PERIOD: 10.9 MPH

TOTAL NUMBER OF OBSERVATIONS WITH BACKUP DATA: 0

## PERCENTAGE OCCURRENCE OF STABILITY CLASSES

| A   | B   | C   | D     | E     | F     | G    |
|-----|-----|-----|-------|-------|-------|------|
| .00 | .05 | .05 | 62.96 | 21.17 | 12.96 | 2.81 |

## DISTRIBUTION OF WIND DIRECTION VS STABILITY

|       | N  | NNE | NE | ENE | E   | ESE | SE | SSE | S   | SSW | SW  | WSW | W   | WNW | NW | NNW | CALM |
|-------|----|-----|----|-----|-----|-----|----|-----|-----|-----|-----|-----|-----|-----|----|-----|------|
| A     | 0  | 0   | 0  | 0   | 0   | 0   | 0  | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0  | 0   | 0    |
| B     | 0  | 0   | 0  | 0   | 0   | 0   | 0  | 0   | 0   | 0   | 0   | 0   | 1   | 0   | 0  | 0   | 0    |
| C     | 0  | 0   | 0  | 0   | 0   | 0   | 0  | 0   | 0   | 0   | 0   | 0   | 0   | 1   | 0  | 0   | 0    |
| D     | 30 | 7   | 18 | 44  | 29  | 29  | 27 | 29  | 43  | 62  | 176 | 274 | 287 | 196 | 73 | 64  | 1    |
| E     | 4  | 6   | 10 | 19  | 35  | 33  | 26 | 35  | 39  | 43  | 53  | 56  | 62  | 22  | 14 | 9   | 1    |
| F     | 3  | 6   | 11 | 21  | 29  | 24  | 19 | 15  | 33  | 21  | 36  | 26  | 12  | 10  | 7  | 1   | 12   |
| G     | 1  | 2   | 1  | 3   | 8   | 6   | 6  | 9   | 3   | 12  | 5   | 0   | 1   | 0   | 0  | 2   | 3    |
| TOTAL | 38 | 21  | 40 | 87  | 101 | 92  | 78 | 88  | 118 | 138 | 270 | 356 | 363 | 229 | 94 | 76  | 17   |

Beaver Valley  
Joint Frequency Distribution Tables  
for  
Batch Releases

Delta T (150ft-35ft) and 35-Ft Wind  
and  
Delta T (500ft-35ft) and 500-Ft Wind

Fourth Quarter 1989

PROGRAM: JFD VERSION: PC-1.0

BEAVER VALLEY JFD - GROUND LEVEL BATCH RELEASES

SITE IDENTIFIER: D18V2

DATA PERIOD EXAMINED: 10/ 1/89 - 12/31/89

\*\*\* 4TH QTR 1989 \*\*\*

| STABILITY CLASS             | STABILITY CLASS A           |
|-----------------------------|-----------------------------|
| STABILITY BASED ON: DELTA T | BETWEEN 150.0 AND 35.0 FEET |

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: .75 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

**SPEED**

[illegible]

STABILITY CLASS B  
STABILITY BASED ON: DELTA T BETWEEN 150.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: .75 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

033d

[illegible]



ATMOSPHERIC SCIENCE DEPARTMENT

NUS CORPORATION

PROGRAM: JFD VERSION: PC-1.0

BEAVER VALLEY JFD - GROUND LEVEL BATCH RELEASES

SITE IDENTIFIER: DLBV2

DATA PERIOD EXAMINED: 10/ 1/89 - 12/31/89

\*\*\* 4TH QTR 1989 \*\*\*

STABILITY CLASS C  
STABILITY BASED ON: DELTA T BETWEEN 150.0 AND 35.0 FEET  
WIND MEASURED AT: 35.0 FEET  
WIND THRESHOLD AT: .75 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

| SPEED<br>(MPH) | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NNW | TOTAL |
|----------------|---|-----|----|-----|---|-----|----|-----|---|-----|----|-----|---|-----|-----|-------|
| CALM           | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 1   | 0     |
| .76- 3.50      | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 1   | 1     |
| 3.51- 7.50     | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 2   | 2     |
| 7.51-12.50     | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0   | 0     |
| 12.51-18.50    | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0   | 0     |
| 18.51-24.00    | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0   | 0     |
| >24.00         | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0   | 0     |
| TOTAL          | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 3   | 3     |

STABILITY CLASS D  
STABILITY BASED ON: DELTA T BETWEEN 150.0 AND 35.0 FEET  
WIND MEASURED AT: 35.0 FEET  
WIND THRESHOLD AT: .75 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

| SPEED<br>(MPH) | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NNW | TOTAL |
|----------------|---|-----|----|-----|---|-----|----|-----|---|-----|----|-----|---|-----|-----|-------|
| CALM           | 0 | 0   | 1  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0   | 0     |
| .76- 3.50      | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0   | 1     |
| 3.51- 7.50     | 0 | 0   | 0  | 0   | 2 | 0   | 0  | 0   | 0 | 0   | 0  | 3   | 0 | 0   | 3   | 11    |
| 7.51-12.50     | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0   | 0     |
| 12.51-18.50    | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0   | 0     |
| 18.51-24.00    | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0   | 0     |
| >24.00         | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0   | 0     |
| TOTAL          | 0 | 0   | 1  | 0   | 2 | 0   | 0  | 0   | 0 | 0   | 0  | 3   | 0 | 0   | 3   | 12    |

PROGRAM: JFD VERSION: PC-1.0

BEAVER VALLEY JFD - GROUND LEVEL BATCH RELEASES

SITE IDENTIFIER: DLBV2

DATA PERIOD EXAMINED: 10/ 1/89 - 12/31/89

\*\*\* 4TH QTR 1989 \*\*\*

STABILITY CLASS E  
 STABILITY BASED ON: DELTA T BETWEEN 150.0 AND 35.0 FEET  
 WIND MEASURED AT: 35.0 FEET  
 WIND THRESHOLD AT: .75 MPH  
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

| SPEED<br>(MPH) | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | TOTAL |
|----------------|---|-----|----|-----|---|-----|----|-----|---|-----|----|-----|---|-----|----|-----|-------|
| CALM           |   |     |    |     |   |     |    |     |   |     |    |     |   |     |    |     | 0     |
| .76- 3.50      | 0 | 0   | 0  | 1   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 1     |
| 3.51- 7.50     | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 7.51-12.50     | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 12.51-18.50    | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 18.51-24.00    | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| >24.00         | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| TOTAL          | 0 | 0   | 0  | 1   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 1     |

STABILITY CLASS F  
 STABILITY BASED ON: DELTA T BETWEEN 150.0 AND 35.0 FEET  
 WIND MEASURED AT: 35.0 FEET  
 WIND THRESHOLD AT: .75 MPH  
 JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

| SPEED<br>(MPH) | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | TOTAL |
|----------------|---|-----|----|-----|---|-----|----|-----|---|-----|----|-----|---|-----|----|-----|-------|
| CALM           |   |     |    |     |   |     |    |     |   |     |    |     |   |     |    |     | 0     |
| .76- 3.50      | 0 | 0   | 2  | 2   | 1 | 0   | 0  | 1   | 0 | 1   | 0  | 0   | 0 | 0   | 0  | 0   | 7     |
| 3.51- 7.50     | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 7.51-12.50     | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 12.51-18.50    | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 18.51-24.00    | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| >24.00         | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| TOTAL          | 0 | 0   | 2  | 2   | 1 | 0   | 0  | 1   | 0 | 1   | 0  | 0   | 0 | 0   | 0  | 0   | 7     |

NUS CORPORATION

ATMOSPHERIC SCIENCE DEPARTMENT

PAGE 5

PROGRAM: JFD VERSION: PC-1.0

BEAVER VALLEY JFD - GROUND LEVEL BATCH RELEASES

SITE IDENTIFIER: DL8V2

DATA PERIOD EXAMINED: 10/ 1/89 - 12/31/89

\*\*\* 4TH QTR 1989 \*\*\*

STABILITY CLASS G  
STABILITY BASED ON: DELTA T BETWEEN 150.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: .75 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

| SPEED<br>(MPH) | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | TOTAL |
|----------------|---|-----|----|-----|---|-----|----|-----|---|-----|----|-----|---|-----|----|-----|-------|
| CALM           | 0 | 0   | 0  | 0   | 1 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| .76- 3.50      | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 1     |
| 3.51- 7.50     | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 7.51-12.50     | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 12.51-18.50    | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 18.51-24.00    | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| >24.00         | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| TOTAL          | 0 | 0   | 0  | 0   | 1 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 1     |

STABILITY CLASS ALL  
STABILITY BASED ON: DELTA T BETWEEN 150.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: .75 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 35.00 FEET

| SPEED<br>(MPH) | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | TOTAL |
|----------------|---|-----|----|-----|---|-----|----|-----|---|-----|----|-----|---|-----|----|-----|-------|
| CALM           | 0 | 0   | 3  | 4   | 2 | 0   | 0  | 1   | 0 | 1   | 0  | 0   | 0 | 0   | 0  | 1   | 12    |
| .76- 3.50      | 0 | 0   | 0  | 0   | 3 | 0   | 0  | 0   | 0 | 0   | 0  | 3   | 0 | 0   | 3  | 5   | 14    |
| 3.51- 7.50     | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 7.51-12.50     | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 12.51-18.50    | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 18.51-24.00    | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| >24.00         | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| TOTAL          | 0 | 0   | 3  | 4   | 5 | 0   | 0  | 1   | 0 | 1   | 0  | 3   | 0 | 0   | 3  | 6   | 26    |



PROGRAM: JFD VERSION: PC-1.0

BEAVER VALLEY JFD - GROUND LEVEL BATCH RELEASES

SITE IDENTIFIER: DLBV2

DATA PERIOD EXAMINED: 10/ 1/89 - 12/31/89

\*\*\* 4TH QTR 1989 \*\*\*

STABILITY BASED ON: DELTA T BETWEEN 150.0 AND 35.0 FEET

WIND MEASURED AT: 35.0 FEET

WIND THRESHOLD AT: .75 MPH

TOTAL NUMBER OF OBSERVATIONS: 26

TOTAL NUMBER OF VALID OBSERVATIONS: 26

TOTAL NUMBER OF MISSING OBSERVATIONS: 0

PERCENT DATA RECOVERY FOR THIS PERIOD: 100.0 %

MEAN WIND SPEED FOR THIS PERIOD: 3.7 MPH

TOTAL NUMBER OF OBSERVATIONS WITH BACKUP DATA: 0

## PERCENTAGE OCCURRENCE OF STABILITY CLASSES

| A    | B   | C     | D     | E    | F     | G    |
|------|-----|-------|-------|------|-------|------|
| 7.69 | .00 | 11.54 | 46.15 | 3.85 | 26.92 | 3.85 |

## DISTRIBUTION OF WIND DIRECTION VS STABILITY

|       | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | CALM |
|-------|---|-----|----|-----|---|-----|----|-----|---|-----|----|-----|---|-----|----|-----|------|
| A     | 0 | 0   | 0  | 1   | 1 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0    |
| B     | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0    |
| C     | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 3   | 0    |
| D     | 0 | 0   | 1  | 0   | 2 | 0   | 0  | 0   | 0 | 0   | 0  | 3   | 0 | 0   | 3  | 3   | 0    |
| E     | 0 | 0   | 0  | 1   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0    |
| F     | 0 | 0   | 2  | 2   | 1 | 0   | 0  | 1   | 0 | 1   | 0  | 0   | 0 | 0   | 0  | 0   | 0    |
| G     | 0 | 0   | 0  | 0   | 1 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0    |
| TOTAL | 0 | 0   | 3  | 4   | 5 | 0   | 0  | 1   | 0 | 1   | 0  | 3   | 0 | 0   | 3  | 6   | 0    |



VERSION: PC-1.0

SITE IDENTIFIER: DL8V2

\*\*\* 6861 QTP 1989 \*\*\*

WIND MEASURED AT: 500.0 FEET

T: 300.0 FEET  
T: .75 MPH

JOINT FREQUENCY DISTRIBUTION OF  
SPEED

WIND MEASURED AT: 500.0 FEET

WIND THRESHOLD AT: .75 MPH  
JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 500.00 FEET

| SPEED<br>(MPH) | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W  | WNW | NNW | TOTAL |
|----------------|---|-----|----|-----|---|-----|----|-----|---|-----|----|-----|----|-----|-----|-------|
| CALM           | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0  | 0   | 0   | 0     |
| .76- 3.50      | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0  | 0   | 0   | 0     |
| 3.51- 7.50     | 0 | 0   | 0  | 0   | 0 | 0   | 2  | 0   | 1 | 0   | 1  | 0   | 2  | 1   | 1   | 10    |
| 7.51-12.50     | 2 | 0   | 0  | 0   | 0 | 0   | 4  | 2   | 1 | 0   | 1  | 4   | 4  | 7   | 8   | 36    |
| 12.51-17.50    | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 4 | 2   | 8  | 18  | 6  | 4   | 2   | 44    |
| 17.51-22.50    | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 1   | 0 | 0   | 3  | 4   | 2  | 5   | 0   | 16    |
| 22.51-27.50    | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 1   | 0  | 0   | 2  | 0   | 0   | 4     |
| >27.50         | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0  | 0   | 0   | 0     |
| TOTAL          | 2 | 0   | 0  | 0   | 0 | 0   | 6  | 3   | 6 | 3   | 13 | 26  | 16 | 11  | 9   | 110   |



ATMOSPHERIC SCIENCES DEPARTMENT

PAGE 4

NUS CORPORATION

PROGRAM: JFD VERSION: PC-1.0

BEAVER VALLEY JFD - ELEVATED BATCH RELEASES

SITE IDENTIFIER: DLBV2

DATA PERIOD EXAMINED: 10/ 1/89 - 12/31/89

\*\*\* 4TH QTR 1989 \*\*\*

| STABILITY CLASS E                                                               |   |     |    |     |   |     |    |     |   |     |    |     |   |     |    |     |       |
|---------------------------------------------------------------------------------|---|-----|----|-----|---|-----|----|-----|---|-----|----|-----|---|-----|----|-----|-------|
| STABILITY BASED ON: DELTA T BETWEEN 500.0 AND 35.0 FEET                         |   |     |    |     |   |     |    |     |   |     |    |     |   |     |    |     |       |
| WIND MEASURED AT: 500.0 FEET                                                    |   |     |    |     |   |     |    |     |   |     |    |     |   |     |    |     |       |
| WIND THRESHOLD AT: .75 MPH                                                      |   |     |    |     |   |     |    |     |   |     |    |     |   |     |    |     |       |
| JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT500.00 FEET |   |     |    |     |   |     |    |     |   |     |    |     |   |     |    |     |       |
| SPEED<br>(MPH)                                                                  | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | TOTAL |
| CALM                                                                            | 0 | 0   | 1  | 1   | 0 | 0   | 0  | 2   | 0 | 1   | 1  | 0   | 0 | 0   | 0  | 0   | 0     |
| .76- 3.50                                                                       | 0 | 0   | 0  | 0   | 3 | 2   | 0  | 0   | 0 | 0   | 0  | 0   | 2 | 1   | 0  | 1   | 9     |
| 3.51- 7.50                                                                      | 0 | 0   | 0  | 0   | 0 | 1   | 1  | 0   | 0 | 0   | 2  | 0   | 0 | 0   | 1  | 1   | 6     |
| 7.51-12.50                                                                      | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 1   | 1 | 1   | 0  | 0   | 0 | 0   | 0  | 0   | 3     |
| 12.51-18.50                                                                     | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 2 | 1   | 2  | 0   | 0 | 0   | 0  | 0   | 6     |
| 18.51-24.00                                                                     | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 1   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| >24.00                                                                          | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| TOTAL                                                                           | 0 | 0   | 1  | 1   | 3 | 3   | 1  | 4   | 3 | 3   | 5  | 0   | 2 | 1   | 1  | 2   | 30    |

| STABILITY CLASS F                                                               |   |     |    |     |   |     |    |     |   |     |    |     |   |     |    |     |       |
|---------------------------------------------------------------------------------|---|-----|----|-----|---|-----|----|-----|---|-----|----|-----|---|-----|----|-----|-------|
| STABILITY BASED ON: DELTA T BETWEEN 500.0 AND 35.0 FEET                         |   |     |    |     |   |     |    |     |   |     |    |     |   |     |    |     |       |
| WIND MEASURED AT: 500.0 FEET                                                    |   |     |    |     |   |     |    |     |   |     |    |     |   |     |    |     |       |
| WIND THRESHOLD AT: .75 MPH                                                      |   |     |    |     |   |     |    |     |   |     |    |     |   |     |    |     |       |
| JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT500.00 FEET |   |     |    |     |   |     |    |     |   |     |    |     |   |     |    |     |       |
| SPEED<br>(MPH)                                                                  | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | TOTAL |
| CALM                                                                            | 0 | 0   | 1  | 0   | 0 | 0   | 0  | 1   | 3 | 0   | 2  | 2   | 0 | 0   | 0  | 0   | 0     |
| .76- 3.50                                                                       | 0 | 0   | 1  | 1   | 0 | 1   | 0  | 0   | 0 | 1   | 0  | 0   | 1 | 0   | 0  | 0   | 9     |
| 3.51- 7.50                                                                      | 0 | 0   | 0  | 0   | 4 | 0   | 0  | 0   | 0 | 0   | 2  | 0   | 0 | 0   | 0  | 0   | 5     |
| 7.51-12.50                                                                      | 0 | 0   | 0  | 1   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 7     |
| 12.51-18.50                                                                     | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 18.51-24.00                                                                     | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 2  | 0   | 0 | 0   | 0  | 0   | 2     |
| >24.00                                                                          | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| TOTAL                                                                           | 0 | 0   | 2  | 2   | 4 | 1   | 0  | 1   | 3 | 1   | 6  | 2   | 1 | 0   | 0  | 0   | 23    |

PROGRAM: JFD VERSION: PC-1.0

BEAVER VALLEY JFD - ELEVATED BATCH RELEASES

SITE IDENTIFIER: DLBV2

DATA PERIOD EXAMINED: 10/ 1/89 - 12/31/89

\*\*\* 4TH QTR 1989 \*\*\*

## STABILITY CLASS G

STABILITY BASED ON: DELTA T BETWEEN 500.0 AND 35.0 FEET

WIND MEASURED AT: 500.0 FEET

WIND THRESHOLD AT: .75 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 500.00 FEET

| SPEED<br>(MPH) | N | NNE | NE | ENE | E | ESE | SE | SSE | S | SSW | SW | WSW | W | WNW | NW | NNW | TOTAL |
|----------------|---|-----|----|-----|---|-----|----|-----|---|-----|----|-----|---|-----|----|-----|-------|
| CALM           |   |     |    |     |   |     |    |     |   |     |    |     |   |     |    |     | 0     |
| .76- 3.50      | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 3.51- 7.50     | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| 7.51-12.50     | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 1   | 0  | 0   | 0 | 0   | 0  | 0   | 1     |
| 12.51-18.50    | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 2   | 0  | 0   | 0 | 0   | 0  | 0   | 2     |
| 18.51-24.00    | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| >24.00         | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0     |
| TOTAL          | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0 | 3   | 0  | 0   | 0 | 0   | 0  | 0   | 3     |

## STABILITY CLASS ALL

STABILITY BASED ON: DELTA T BETWEEN 500.0 AND 35.0 FEET

WIND MEASURED AT: 500.0 FEET

WIND THRESHOLD AT: .75 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS AT 500.00 FEET

| SPEED<br>(MPH) | N | NNE | NE | ENE | E | ESE | SE | SSE | S  | SSW | SW | WSW | W  | WNW | NW | NNW | TOTAL |
|----------------|---|-----|----|-----|---|-----|----|-----|----|-----|----|-----|----|-----|----|-----|-------|
| CALM           |   |     |    |     |   |     |    |     |    |     |    |     |    |     |    |     | 0     |
| .76- 3.50      | 0 | 0   | 2  | 1   | 0 | 0   | 0  | 3   | 3  | 1   | 3  | 2   | 0  | 0   | 0  | 0   | 15    |
| 3.51- 7.50     | 0 | 0   | 1  | 1   | 3 | 3   | 2  | 0   | 1  | 1   | 1  | 0   | 5  | 2   | 2  | 2   | 24    |
| 7.51-12.50     | 2 | 0   | 0  | 1   | 4 | 1   | 5  | 2   | 1  | 1   | 5  | 4   | 4  | 7   | 4  | 9   | 50    |
| 12.51-18.50    | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 1   | 5  | 5   | 8  | 18  | 6  | 4   | 2  | 0   | 49    |
| 18.51-24.00    | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 2   | 2  | 1   | 7  | 4   | 2  | 5   | 1  | 0   | 24    |
| >24.00         | 0 | 0   | 0  | 0   | 0 | 0   | 0  | 0   | 0  | 1   | 0  | 0   | 2  | 0   | 1  | 0   | 4     |
| TOTAL          | 2 | 0   | 3  | 3   | 7 | 4   | 7  | 8   | 12 | 10  | 24 | 28  | 19 | 18  | 10 | 11  | 166   |





Beaver Valley  
Listings of Meteorological Data  
for  
Periods of Elevated Gaseous Effluent Releases

Fourth Quarter 1989

## LISTING FOR BEAVER VALLEY HOURLY METEOROLOGICAL DATA 500-FT LEVEL BATCH RELEASES FOR THE FOURTH QUARTER 1939

-----35 FT-----150 FT-----500 FT-----

| YR MO DY HR | WIND  | WIND | STD | WIND  | WIND | STD | WIND  | WIND | STD | AMB. | DEW   | DELTA T | DELTA T | RAIN |
|-------------|-------|------|-----|-------|------|-----|-------|------|-----|------|-------|---------|---------|------|
|             | SPEED | DIR  | DEV | SPEED | DIR  | DEV | SPEED | DIR  | DEV | TEMP | POINT |         |         |      |
|             |       |      |     |       |      |     |       |      |     |      |       |         |         |      |
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PROGRAM: LIST VERSION: PC-1.0

LISTING FOR BEAVER VALLEY HOURLY METEOROLOGICAL DATA 500-FT LEVEL BATCH RELEASES FOR THE FOURTH QUARTER 1989

| -----35 FT----- |    |    | -----150 FT----- |       |       | -----500 FT----- |       |       |      |       |       |      |      |       |         |         |      |
|-----------------|----|----|------------------|-------|-------|------------------|-------|-------|------|-------|-------|------|------|-------|---------|---------|------|
| YR              | MO | DY | HR               | WIND  | WIND  | STD              | WIND  | WIND  | STD  | WIND  | WIND  | STD  | AMB. | DEW   | DELTA T | DELTA T | RAIN |
|                 |    |    |                  | SPEED | DIR   | DEV              | SPEED | DIR   | DEV  | SPEED | DIR   | DEV  | TEMP | POINT | 150-35  | 500-35  | FALL |
|                 |    |    |                  | (MPH) | (DEG) | (SC)             | (MPH) | (DEG) | (SC) | (MPH) | (DEG) | (SC) | (F)  | (F)   | (F)     | (F)     | (IN) |
| 89              | 11 | 2  | 16               | 3.6   | 267.  | 99.9             | 6.0   | 280.  | 99.9 | 7.4   | 285.  | 99.9 | 53.3 | 31.4  | -5.5 D  | -2.3 D  | .00  |
| 89              | 11 | 2  | 17               | 3.8   | 307.  | 99.9             | 6.8   | 309.  | 99.9 | 11.3  | 322.  | 99.9 | 52.0 | 33.5  | -4.4 D  | -2.3 D  | .00  |
| 89              | 11 | 2  | 18               | 2.0   | 314.  | 99.9             | 2.6   | 308.  | 99.9 | 8.6   | 337.  | 99.9 | 49.6 | 34.1  | .0 E    | -1.2 E  | .00  |
| 89              | 11 | 2  | 19               | 3.9   | 341.  | 99.9             | 5.8   | 336.  | 99.9 | 10.5  | 342.  | 99.9 | 47.8 | 36.1  | -4.4 D  | -2.4 D  | .00  |
| 89              | 11 | 2  | 20               | 1.8   | 140.  | 99.9             | 3.2   | 310.  | 99.9 | 6.8   | 324.  | 99.9 | 45.9 | 39.9  | -5.5 D  | -2.4 D  | .00  |
| 89              | 11 | 2  | 21               | 2.6   | 351.  | 99.9             | 4.2   | 347.  | 99.9 | 7.8   | 353.  | 99.9 | 44.5 | 39.5  | -3.3 E  | -2.2 D  | .00  |
| 89              | 11 | 2  | 22               | 3.9   | 335.  | 99.9             | 6.6   | 340.  | 99.9 | 10.7  | 345.  | 99.9 | 43.5 | 38.1  | -5.5 D  | -2.5 D  | .00  |
| 89              | 11 | 2  | 23               | 2.7   | 8.    | 99.9             | 5.2   | 5.    | 99.9 | 8.2   | 347.  | 99.9 | 42.4 | 37.3  | -5.5 D  | -2.4 D  | .00  |
| 89              | 11 | 2  | 24               | 2.8   | 333.  | 99.9             | 5.2   | 352.  | 99.9 | 8.9   | 351.  | 99.9 | 41.1 | 37.5  | -4.4 D  | -2.2 D  | .02  |
| 89              | 11 | 3  | 1                | 4.5   | 317.  | 99.9             | 6.1   | 332.  | 99.9 | 9.0   | 344.  | 99.9 | 39.6 | 36.2  | -5.5 D  | -2.4 D  | .00  |
| 89              | 11 | 3  | 2                | 3.8   | 306.  | 99.9             | 6.1   | 310.  | 99.9 | 8.6   | 330.  | 99.9 | 38.5 | 36.5  | -5.5 D  | -2.4 D  | .01  |
| 89              | 11 | 3  | 3                | 5.0   | 319.  | 99.9             | 7.7   | 315.  | 99.9 | 11.7  | 330.  | 99.9 | 37.0 | 35.0  | -5.5 D  | -2.4 D  | .03  |
| 89              | 11 | 3  | 4                | 3.6   | 308.  | 99.9             | 5.2   | 318.  | 99.9 | 8.7   | 338.  | 99.9 | 35.9 | 34.1  | -5.5 D  | -2.4 D  | .01  |
| 89              | 11 | 3  | 5                | 3.2   | 314.  | 99.9             | 4.7   | 329.  | 99.9 | 8.7   | 346.  | 99.9 | 35.5 | 33.9  | -5.5 D  | -2.3 D  | .00  |
| 89              | 11 | 3  | 6                | 2.9   | 284.  | 99.9             | 4.1   | 296.  | 99.9 | 7.3   | 333.  | 99.9 | 35.2 | 33.9  | -5.5 D  | -2.3 D  | .01  |
| 89              | 11 | 3  | 7                | 4.3   | 285.  | 99.9             | 6.3   | 290.  | 99.9 | 8.2   | 311.  | 99.9 | 35.2 | 34.1  | -5.5 D  | -2.1 D  | .00  |
| 89              | 11 | 3  | 8                | 4.4   | 309.  | 99.9             | 7.2   | 298.  | 99.9 | 11.6  | 292.  | 99.9 | 35.7 | 34.6  | -5.5 D  | -2.3 D  | .00  |
| 89              | 11 | 3  | 9                | 4.0   | 295.  | 99.9             | 7.5   | 292.  | 99.9 | 9.7   | 302.  | 99.9 | 35.5 | 34.5  | -7.7 D  | -2.6 D  | .02  |
| 89              | 11 | 3  | 10               | 4.0   | 314.  | 99.9             | 6.9   | 311.  | 99.9 | 9.5   | 312.  | 99.9 | 35.3 | 34.1  | -6.6 D  | -2.4 D  | .02  |
| 89              | 11 | 3  | 11               | 4.4   | 280.  | 99.9             | 8.1   | 292.  | 99.9 | 10.9  | 292.  | 99.9 | 36.2 | 33.0  | -7.7 D  | -2.7 D  | .00  |
| 89              | 11 | 3  | 12               | 5.0   | 278.  | 99.9             | 9.6   | 284.  | 99.9 | 11.0  | 288.  | 99.9 | 37.4 | 31.6  | -8.8 D  | -2.9 D  | .00  |
| 89              | 11 | 3  | 13               | 5.4   | 261.  | 99.9             | 8.0   | 273.  | 99.9 | 10.2  | 280.  | 99.9 | 38.7 | 28.6  | -9.9 D  | -3.1 D  | .00  |
| 89              | 11 | 3  | 14               | 7.7   | 320.  | 99.9             | 10.6  | 305.  | 99.9 | 16.1  | 320.  | 99.9 | 37.3 | 25.5  | -6.6 D  | -2.7 D  | .00  |
| 89              | 11 | 3  | 15               | 8.0   | 269.  | 99.9             | 12.7  | 279.  | 99.9 | 14.9  | 285.  | 99.9 | 39.0 | 24.8  | -9.9 D  | -3.1 D  | .00  |
| 89              | 11 | 3  | 16               | 5.8   | 262.  | 99.9             | 9.5   | 276.  | 99.9 | 11.4  | 286.  | 99.9 | 39.1 | 23.4  | -7.7 D  | -2.8 D  | .01  |
| 89              | 11 | 3  | 17               | 5.5   | 310.  | 99.9             | 10.4  | 296.  | 99.9 | 13.8  | 294.  | 99.9 | 38.3 | 21.8  | -4.4 D  | -2.4 D  | .00  |
| 89              | 11 | 3  | 18               | 4.3   | 311.  | 99.9             | 7.2   | 295.  | 99.9 | 11.3  | 295.  | 99.9 | 37.0 | 21.2  | -4.4 D  | -2.2 D  | .00  |
| 89              | 11 | 3  | 19               | 1.7   | 277.  | 99.9             | 3.7   | 285.  | 99.9 | 7.5   | 320.  | 99.9 | 35.3 | 23.2  | -1.1 E  | -1.5 D  | .00  |
| 89              | 11 | 3  | 20               | 1.4   | 171.  | 99.9             | 3.1   | 242.  | 99.9 | 8.4   | 306.  | 99.9 | 30.8 | 24.2  | 1.9 F   | 2.1 E   | .00  |
| 89              | 11 | 3  | 21               | 1.5   | 126.  | 99.9             | 1.4   | 117.  | 99.9 | 6.8   | 327.  | 99.9 | 29.2 | 25.3  | 2.5 F   | 3.0 E   | .00  |
| 89              | 11 | 3  | 22               | 1.6   | 147.  | 99.9             | 3.4   | 197.  | 99.9 | 4.6   | 272.  | 99.9 | 28.0 | 25.0  | 3.0 G   | 3.0 E   | .00  |
| 89              | 11 | 3  | 23               | 1.7   | 135.  | 99.9             | 2.6   | 207.  | 99.9 | 3.9   | 285.  | 99.9 | 27.9 | 24.8  | 2.8 G   | 2.9 E   | .00  |
| 89              | 11 | 3  | 24               | 1.1   | 154.  | 99.9             | 2.3   | 15.   | 99.9 | 1.4   | 150.  | 99.9 | 26.8 | 25.3  | 2.3 F   | 3.5 E   | .00  |
| 89              | 11 | 4  | 1                | 2.1   | 167.  | 99.9             | 1.2   | 360.  | 99.9 | 2.1   | 153.  | 99.9 | 26.1 | 24.8  | 1.9 F   | 3.7 E   | .00  |
| 89              | 11 | 4  | 2                | 1.2   | 155.  | 99.9             | .6    | 117.  | 99.9 | 2.9   | 221.  | 99.9 | 25.3 | 24.4  | 2.4 F   | 3.0 E   | .00  |
| 89              | 11 | 4  | 3                | 1.8   | 150.  | 99.9             | 2.5   | 190.  | 99.9 | 3.3   | 208.  | 99.9 | 24.6 | 23.7  | 2.6 G   | 3.4 E   | .00  |
| 89              | 11 | 4  | 4                | 1.1   | 159.  | 99.9             | 1.9   | 24.   | 99.9 | 2.1   | 172.  | 99.9 | 23.7 | 23.2  | 2.7 G   | 5.1 F   | .00  |
| 89              | 11 | 4  | 5                | 1.7   | 107.  | 99.9             | 3.8   | 44.   | 99.9 | 3.1   | 72.   | 99.9 | 24.0 | 23.6  | 1.7 F   | 2.2 E   | .00  |
| 89              | 11 | 4  | 6                | 2.2   | 82.   | 99.9             | 3.9   | 74.   | 99.9 | 4.7   | 105.  | 99.9 | 25.1 | 23.8  | .5 E    | .8 E    | .00  |
| 89              | 11 | 4  | 7                | 2.0   | 103.  | 99.9             | 4.0   | 81.   | 99.9 | 4.0   | 85.   | 99.9 | 25.2 | 23.7  | .3 E    | .0 E    | .00  |
| 89              | 11 | 4  | 8                | 2.1   | 79.   | 99.9             | 4.9   | 64.   | 99.9 | 9.1   | 136.  | 99.9 | 27.1 | 25.5  | .0 E    | .0 E    | .00  |
| 89              | 11 | 4  | 9                | 3.1   | 30.   | 99.9             | 4.6   | 46.   | 99.9 | 7.1   | 128.  | 99.9 | 31.1 | 27.5  | -4.4 D  | -1.7 D  | .00  |
| 89              | 11 | 4  | 10               | 2.3   | 117.  | 99.9             | 5.4   | 119.  | 99.9 | 9.1   | 139.  | 99.9 | 37.7 | 24.4  | -1.2 A  | -3.6 D  | .00  |
| 89              | 11 | 4  | 11               | 5.0   | 127.  | 99.9             | 9.0   | 127.  | 99.9 | 11.3  | 131.  | 99.9 | 40.8 | 22.4  | -1.4 A  | -3.7 D  | .00  |
| 89              | 11 | 4  | 12               | 4.3   | 157.  | 99.9             | 9.0   | 140.  | 99.9 | 8.4   | 129.  | 99.9 | 41.7 | 23.9  | -1.2 A  | -3.2 D  | .00  |
| 89              | 11 | 4  | 13               | 3.7   | 131.  | 99.9             | 7.1   | 129.  | 99.9 | 8.7   | 133.  | 99.9 | 43.0 | 24.5  | -1.1 B  | -3.3 D  | .00  |
| 89              | 11 | 4  | 14               | 3.5   | 151.  | 99.9             | 7.2   | 144.  | 99.9 | 8.3   | 151.  | 99.9 | 44.8 | 26.1  | -1.1 B  | -3.2 D  | .00  |
| 89              | 11 | 4  | 15               | 3.8   | 141.  | 99.9             | 9.2   | 138.  | 99.9 | 11.1  | 154.  | 99.9 | 45.8 | 26.9  | -9.9 D  | -3.0 D  | .00  |



PROGRAM: LIST

VERSION: PC-1.0

## LISTING FOR BEAVER VALLEY HOURLY METEOROLOGICAL DATA 500-FT LEVEL BATCH RELEASES FOR THE FOURTH QUARTER 1989

| -----35 FT----- |    |     |    | -----150 FT----- |             |            |               | -----500 FT----- |            |               |             | AMB.       | DEW         | DELTA T      |                   | RAIN              |         |
|-----------------|----|-----|----|------------------|-------------|------------|---------------|------------------|------------|---------------|-------------|------------|-------------|--------------|-------------------|-------------------|---------|
| YR              | MO | DAY | HR | WIND<br>SPEED    | WIND<br>DIR | STD<br>DEV | WIND<br>SPEED | WIND<br>DIR      | STD<br>DEV | WIND<br>SPEED | WIND<br>DIR | STD<br>DEV | TEMP<br>35F | POINT<br>35F | DELTA T<br>150-35 | DELTA T<br>500-35 | FALL    |
|                 |    |     |    | (MPH)            | (DEG)       | SC (DEG)   | SC (MPH)      | (DEG)            | SC (DEG)   | SC (MPH)      | (DEG)       | SC (DEG)   | (F)         | (F)          | (F)               | SC (")            | SC (IN) |
| 89              | 11 | 4   | 16 | 2.1              | 153.        | 99.9 -     | 5.9           | 153.             | 99.9 -     | 8.7           | 174.        | 99.9 -     | 46.4        | 28.6         | -5.5 D            | -2.4 D            | .00     |
| 89              | 11 | 5   | 19 | 2.4              | 141.        | 99.9 -     | 5.6           | 148.             | 99.9 -     | 17.7          | 161.        | 99.9 -     | 61.1        | 29.9         | .3 E              | -6.6 E            | .00     |
| 89              | 11 | 5   | 20 | 3.2              | 146.        | 99.9 -     | 8.1           | 145.             | 99.9 -     | 19.6          | 163.        | 99.9 -     | 62.1        | 28.3         | .1 E              | -7.7 E            | .00     |
| 89              | 11 | 5   | 21 | 2.9              | 135.        | 99.9 -     | 6.0           | 163.             | 99.9 -     | 17.1          | 172.        | 99.9 -     | 61.9        | 31.4         | .0 E              | -9.9 E            | .00     |
| 89              | 11 | 5   | 22 | 4.0              | 167.        | 99.9 -     | 8.5           | 162.             | 99.9 -     | 20.4          | 172.        | 99.9 -     | 61.6        | 31.2         | .1 E              | -9.9 E            | .00     |
| 89              | 11 | 5   | 23 | 4.4              | 176.        | 99.9 -     | 8.1           | 167.             | 99.9 -     | 18.7          | 185.        | 99.9 -     | 61.4        | 32.3         | .0 E              | -6.6 E            | .00     |
| 89              | 11 | 5   | 24 | 6.7              | 193.        | 99.9 -     | 12.1          | 190.             | 99.9 -     | 22.0          | 200.        | 99.9 -     | 64.1        | 33.5         | .0 E              | -8.8 E            | .00     |
| 89              | 11 | 6   | 1  | 11.1             | 207.        | 99.9 -     | 14.4          | 202.             | 99.9 -     | 24.4          | 204.        | 99.9 -     | 65.3        | 36.2         | .0 E              | -1.3 D            | .00     |
| 89              | 11 | 6   | 2  | 8.7              | 246.        | 99.9 -     | 13.7          | 258.             | 99.9 -     | 18.8          | 243.        | 99.9 -     | 64.9        | 37.8         | .0 E              | -1.5 D            | .00     |
| 89              | 11 | 6   | 3  | 3.6              | 218.        | 99.9 -     | 6.0           | 224.             | 99.9 -     | 10.1          | 215.        | 99.9 -     | 56.7        | 47.0         | -1.1 E            | -1.6 D            | .00     |
| 89              | 11 | 12  | 19 | 1.2              | 141.        | 99.9 -     | 2.8           | 31.              | 99.9 -     | 5.6           | 48.         | 99.9 -     | 36.2        | 27.4         | 3.3 G             | 6.2 F             | .00     |
| 89              | 11 | 12  | 20 | 1.5              | 137.        | 99.9 -     | 3.7           | 27.              | 99.9 -     | 6.2           | 57.         | 99.9 -     | 34.6        | 27.8         | 3.2 G             | 6.0 F             | .00     |
| 89              | 11 | 12  | 21 | 1.5              | 141.        | 99.9 -     | 2.2           | 44.              | 99.9 -     | 8.1           | 66.         | 99.9 -     | 32.5        | 27.4         | 3.7 G             | 7.2 F             | .00     |
| 89              | 11 | 12  | 22 | 1.8              | 126.        | 99.9 -     | 4.6           | 23.              | 99.9 -     | 9.1           | 83.         | 99.9 -     | 31.5        | 27.1         | 4.4 G             | 6.8 F             | .00     |
| 89              | 11 | 12  | 23 | 2.3              | 93.         | 99.9 -     | 4.1           | 27.              | 99.9 -     | 9.5           | 93.         | 99.9 -     | 32.1        | 26.3         | 4.0 G             | 5.2 F             | .00     |
| 89              | 11 | 12  | 24 | 3.1              | 74.         | 99.9 -     | 4.1           | 34.              | 99.9 -     | 8.4           | 105.        | 99.9 -     | 32.7        | 27.4         | 3.6 G             | 3.7 E             | .00     |
| 89              | 11 | 13  | 1  | 3.0              | 91.         | 99.9 -     | 5.0           | 29.              | 99.9 -     | 7.8           | 98.         | 99.9 -     | 32.5        | 27.4         | 3.3 G             | 4.0 F             | .00     |
| 89              | 11 | 13  | 2  | 2.6              | 93.         | 99.9 -     | 3.8           | 38.              | 99.9 -     | 8.7           | 97.         | 99.9 -     | 31.9        | 27.6         | 3.1 G             | 4.0 F             | .00     |
| 89              | 11 | 13  | 18 | 2.2              | 157.        | 99.9 -     | 4.0           | 215.             | 99.9 -     | 9.4           | 219.        | 99.9 -     | 63.5        | 42.9         | 4.4 G             | 3.6 E             | .00     |
| 89              | 11 | 13  | 19 | 1.7              | 179.        | 99.9 -     | 3.9           | 238.             | 99.9 -     | 11.9          | 223.        | 99.9 -     | 63.2        | 42.6         | 3.3 G             | 3.3 E             | .00     |
| 89              | 11 | 13  | 20 | 2.1              | 178.        | 99.9 -     | 4.3           | 220.             | 99.9 -     | 10.3          | 215.        | 99.9 -     | 61.4        | 42.3         | 4.5 G             | 4.0 F             | .00     |
| 89              | 11 | 13  | 21 | 2.2              | 173.        | 99.9 -     | 4.2           | 220.             | 99.9 -     | 10.2          | 218.        | 99.9 -     | 59.9        | 42.5         | 5.1 G             | 4.8 F             | .00     |
| 89              | 11 | 13  | 22 | 3.1              | 208.        | 99.9 -     | 8.9           | 253.             | 99.9 -     | 20.5          | 230.        | 99.9 -     | 60.8        | 42.6         | 4.3 G             | 4.6 F             | .00     |
| 89              | 11 | 13  | 23 | 4.9              | 214.        | 99.9 -     | 9.8           | 238.             | 99.9 -     | 21.8          | 228.        | 99.9 -     | 61.8        | 42.2         | 2.4 F             | 2.5 E             | .00     |
| 89              | 11 | 13  | 24 | 7.6              | 201.        | 99.9 -     | 10.6          | 224.             | 99.9 -     | 22.2          | 232.        | 99.9 -     | 61.0        | 41.7         | 1.9 F             | 1.6 E             | .00     |
| 89              | 11 | 14  | 1  | 5.9              | 202.        | 99.9 -     | 10.0          | 228.             | 99.9 -     | 23.4          | 228.        | 99.9 -     | 57.2        | 42.0         | 3.9 G             | 4.9 F             | .00     |
| 89              | 11 | 14  | 6  | .9               | 189.        | 99.9 -     | 1.9           | 327.             | 99.9 -     | 8.1           | 205.        | 99.9 -     | 44.3        | 42.6         | 7.7 G             | 11.9 G            | .00     |
| 89              | 11 | 14  | 7  | 1.2              | 107.        | 99.9 -     | 2.2           | 315.             | 99.9 -     | 14.4          | 200.        | 99.9 -     | 44.7        | 42.7         | 7.8 G             | 11.9 G            | .00     |
| 89              | 11 | 14  | 8  | 1.0              | 164.        | 99.9 -     | 3.6           | 242.             | 99.9 -     | 15.8          | 200.        | 99.9 -     | 46.2        | 43.0         | 8.2 G             | 11.9 G            | .00     |
| 89              | 11 | 14  | 9  | 5.1              | 221.        | 99.9 -     | 8.6           | 215.             | 99.9 -     | 16.1          | 210.        | 99.9 -     | 61.3        | 43.3         | 1.2 F             | .4 E              | .00     |
| 89              | 11 | 14  | 10 | 7.5              | 227.        | 99.9 -     | 9.6           | 220.             | 99.9 -     | 13.8          | 219.        | 99.9 -     | 66.6        | 44.9         | -4.4 D            | -2.1 D            | .00     |
| 89              | 11 | 14  | 11 | 10.7             | 233.        | 99.9 -     | 13.7          | 232.             | 99.9 -     | 17.6          | 228.        | 99.9 -     | 68.9        | 46.5         | -5.5 D            | -2.3 D            | .00     |
| 89              | 11 | 15  | 6  | 3.7              | 192.        | 99.9 -     | 6.4           | 187.             | 99.9 -     | 13.5          | 195.        | 99.9 -     | 58.8        | 55.8         | -2.2 E            | -1.7 D            | .00     |
| 89              | 11 | 15  | 7  | 3.7              | 174.        | 99.9 -     | 7.7           | 170.             | 99.9 -     | 14.4          | 187.        | 99.9 -     | 59.0        | 56.1         | -2.2 E            | -1.8 D            | .00     |
| 89              | 11 | 15  | 8  | 4.1              | 175.        | 99.9 -     | 6.8           | 177.             | 99.9 -     | 13.3          | 182.        | 99.9 -     | 58.9        | 56.5         | -4.4 D            | -2.1 D            | .00     |
| 89              | 11 | 15  | 9  | 3.6              | 192.        | 99.9 -     | 5.5           | 176.             | 99.9 -     | 14.2          | 177.        | 99.9 -     | 59.6        | 56.7         | -4.4 D            | -2.2 D            | .02     |
| 89              | 11 | 15  | 10 | 5.6              | 186.        | 99.9 -     | 9.5           | 185.             | 99.9 -     | 15.9          | 186.        | 99.9 -     | 62.3        | 56.8         | -6.6 D            | -2.4 D            | .00     |
| 89              | 11 | 15  | 11 | 7.0              | 194.        | 99.9 -     | 11.1          | 187.             | 99.9 -     | 15.6          | 195.        | 99.9 -     | 64.9        | 57.3         | -7.7 D            | -2.7 D            | .00     |
| 89              | 11 | 16  | 3  | 5.9              | 164.        | 99.9 -     | 11.7          | 155.             | 99.9 -     | 21.9          | 165.        | 99.9 -     | 55.8        | 53.9         | -1.1 E            | -2.0 D            | .05     |
| 89              | 11 | 16  | 4  | 11.8             | 224.        | 99.9 -     | 16.4          | 225.             | 99.9 -     | 22.6          | 228.        | 99.9 -     | 55.2        | 52.6         | -4.4 D            | -2.6 D            | .05     |
| 89              | 11 | 16  | 5  | 11.6             | 254.        | 99.9 -     | 19.0          | 263.             | 99.9 -     | 25.0          | 260.        | 99.9 -     | 44.8        | 42.9         | -1.2 A            | -2.7 D            | .07     |
| 89              | 11 | 16  | 6  | 11.0             | 250.        | 99.9 -     | 16.8          | 260.             | 99.9 -     | 22.5          | 262.        | 99.9 -     | 39.3        | 36.8         | -1.4 A            | -3.1 D            | .06     |
| 89              | 11 | 16  | 7  | 10.8             | 255.        | 99.9 -     | 17.4          | 262.             | 99.9 -     | 24.2          | 260.        | 99.9 -     | 37.6        | 35.2         | -1.3 A            | -3.2 D            | .05     |
| 89              | 11 | 16  | 8  | 9.1              | 246.        | 99.9 -     | 12.1          | 252.             | 99.9 -     | 15.0          | 243.        | 99.9 -     | 36.0        | 33.9         | -1.2 A            | -2.8 D            | .00     |
| 89              | 11 | 16  | 9  | 8.6              | 245.        | 99.9 -     | 12.8          | 253.             | 99.9 -     | 17.3          | 244.        | 99.9 -     | 36.0        | 33.6         | -1.2 A            | -3.0 D            | .01     |
| 89              | 11 | 17  | 4  | 11.3             | 247.        | 99.9 -     | 15.9          | 255.             | 99.9 -     | 21.3          | 255.        | 99.9 -     | 29.2        | 20.2         | -5.5 D            | -2.6 D            | .00     |
| 89              | 11 | 17  | 5  | 10.2             | 248.        | 99.9 -     | 15.2          | 251.             | 99.9 -     | 18.2          | 245.        | 99.9 -     | 28.4        | 19.7         | -5.5 D            | -2.5 D            | .00     |
| 89              | 11 | 17  | 6  | 11.3             | 237.        | 99.9 -     | 14.2          | 244.             | 99.9 -     | 17.7          | 245.        | 99.9 -     | 27.9        | 17.3         | -5.5 D            | -2.6 D            | .00     |

PROGRAM: LIST VERSION: PC-1.0

LISTING FOR BEAVER VALLEY HOURLY METEOROLOGICAL DATA 500-FT LEVEL BATCH RELEASES FOR THE FOURTH QUARTER 1989

-----35 FT-----150 FT-----500 FT-----

| YR | MO | DAY | HR | WIND<br>SPEED<br>(MPH) | WIND<br>DIR<br>(DEG) | STD<br>DEV<br>SC (DEG) | WIND<br>SPEED<br>(MPH) | WIND<br>DIR<br>(DEG) | STD<br>DEV<br>SC (DEG) | WIND<br>SPEED<br>(MPH) | WIND<br>DIR<br>(DEG) | STD<br>DEV<br>SC (DEG) | AMB.<br>TEMP<br>35F<br>(F) | DEW<br>POINT<br>35F<br>(F) | DELTA T<br>150-35<br>(F) | DELTA T<br>500-35<br>(F) | RAIN<br>FALL<br>SC (IN) |
|----|----|-----|----|------------------------|----------------------|------------------------|------------------------|----------------------|------------------------|------------------------|----------------------|------------------------|----------------------------|----------------------------|--------------------------|--------------------------|-------------------------|
| 89 | 11 | 17  | 7  | 10.0                   | 251.                 | 99.9 -                 | 14.2                   | 258.                 | 99.9 -                 | 17.7                   | 254.                 | 99.9 -                 | 26.9                       | 15.6                       | -5.0                     | -2.6                     | .00                     |
| 89 | 11 | 17  | 8  | 10.3                   | 241.                 | 99.9 -                 | 12.8                   | 240.                 | 99.9 -                 | 18.5                   | 237.                 | 99.9 -                 | 26.9                       | 18.5                       | -6.0                     | -2.5                     | .00                     |
| 89 | 11 | 17  | 9  | 11.3                   | 236.                 | 99.9 -                 | 15.2                   | 238.                 | 99.9 -                 | 20.3                   | 237.                 | 99.9 -                 | 26.4                       | 13.7                       | -8.0                     | -3.0                     | .00                     |
| 89 | 11 | 17  | 10 | 10.7                   | 238.                 | 99.9 -                 | 14.2                   | 245.                 | 99.9 -                 | 17.7                   | 245.                 | 99.9 -                 | 27.1                       | 14.4                       | -8.0                     | -3.0                     | .00                     |
| 89 | 12 | 25  | 19 | 7.0                    | 226.                 | 99.9 -                 | 9.2                    | 225.                 | 99.9 -                 | 13.7                   | 220.                 | 99.9 -                 | 19.6                       | 14.2                       | -4.0                     | -2.3                     | .00                     |
| 89 | 12 | 25  | 20 | 7.0                    | 225.                 | 99.9 -                 | 8.5                    | 225.                 | 99.9 -                 | 12.7                   | 224.                 | 99.9 -                 | 20.3                       | 14.1                       | -4.0                     | -2.2                     | .00                     |
| 89 | 12 | 25  | 21 | 8.0                    | 249.                 | 99.9 -                 | 11.5                   | 249.                 | 99.9 -                 | 15.9                   | 234.                 | 99.9 -                 | 20.8                       | 14.7                       | -4.0                     | -1.9                     | .00                     |
| 89 | 12 | 25  | 22 | 7.8                    | 249.                 | 99.9 -                 | 11.1                   | 249.                 | 99.9 -                 | 18.3                   | 239.                 | 99.9 -                 | 21.2                       | 15.5                       | -4.0                     | -2.1                     | .00                     |
| 89 | 12 | 25  | 23 | 9.3                    | 243.                 | 99.9 -                 | 11.8                   | 243.                 | 99.9 -                 | 18.6                   | 239.                 | 99.9 -                 | 21.2                       | 16.6                       | -4.0                     | -1.9                     | .00                     |
| 89 | 12 | 25  | 24 | 7.1                    | 255.                 | 99.9 -                 | 10.2                   | 251.                 | 99.9 -                 | 17.4                   | 243.                 | 99.9 -                 | 21.7                       | 18.1                       | -4.0                     | -1.9                     | .00                     |
| 89 | 12 | 26  | 1  | 8.4                    | 266.                 | 99.9 -                 | 12.3                   | 268.                 | 99.9 -                 | 15.8                   | 247.                 | 99.9 -                 | 22.3                       | 18.3                       | -4.0                     | -2.1                     | .00                     |
| 89 | 12 | 26  | 2  | 9.2                    | 250.                 | 99.9 -                 | 12.4                   | 248.                 | 99.9 -                 | 19.3                   | 236.                 | 99.9 -                 | 22.7                       | 18.8                       | -4.0                     | -1.7                     | .00                     |
| 89 | 12 | 26  | 3  | 8.9                    | 246.                 | 99.9 -                 | 12.3                   | 241.                 | 99.9 -                 | 17.9                   | 229.                 | 99.9 -                 | 23.1                       | 19.3                       | -4.0                     | -1.6                     | .00                     |
| 89 | 12 | 26  | 4  | 8.8                    | 245.                 | 99.9 -                 | 12.0                   | 244.                 | 99.9 -                 | 19.1                   | 235.                 | 99.9 -                 | 24.1                       | 19.7                       | -4.0                     | -1.9                     | .00                     |
| 89 | 12 | 26  | 5  | 5.8                    | 248.                 | 99.9 -                 | 9.1                    | 250.                 | 99.9 -                 | 16.8                   | 243.                 | 99.9 -                 | 23.9                       | 22.0                       | -3.0                     | -1.7                     | .00                     |
| 89 | 12 | 26  | 6  | 6.9                    | 248.                 | 99.9 -                 | 10.6                   | 255.                 | 99.9 -                 | 15.0                   | 256.                 | 99.9 -                 | 24.9                       | 22.3                       | -3.0                     | -1.9                     | .00                     |
| 89 | 12 | 26  | 7  | 7.4                    | 318.                 | 99.9 -                 | 12.0                   | 312.                 | 99.9 -                 | 19.2                   | 324.                 | 99.9 -                 | 22.6                       | 15.9                       | -3.0                     | -2.4                     | .00                     |
| 89 | 12 | 26  | 8  | 10.4                   | 303.                 | 99.9 -                 | 20.5                   | 298.                 | 99.9 -                 | 24.9                   | 308.                 | 99.9 -                 | 18.5                       | 11.0                       | -5.0                     | -2.6                     | .00                     |
| 89 | 12 | 26  | 9  | 6.3                    | 320.                 | 99.9 -                 | 12.4                   | 304.                 | 99.9 -                 | 17.1                   | 311.                 | 99.9 -                 | 15.5                       | 5.0                        | -5.0                     | -2.5                     | .00                     |
| 89 | 12 | 26  | 10 | 6.4                    | 287.                 | 99.9 -                 | 11.7                   | 291.                 | 99.9 -                 | 16.7                   | 300.                 | 99.9 -                 | 15.4                       | 6.8                        | -6.0                     | -2.7                     | .00                     |
| 89 | 12 | 26  | 11 | 9.2                    | 276.                 | 99.9 -                 | 17.2                   | 280.                 | 99.9 -                 | 23.3                   | 289.                 | 99.9 -                 | 15.2                       | 2.6                        | -7.0                     | -2.9                     | .00                     |
| 89 | 12 | 26  | 12 | 7.6                    | 297.                 | 99.9 -                 | 14.8                   | 291.                 | 99.9 -                 | 20.3                   | 296.                 | 99.9 -                 | 14.4                       | 5.3                        | -7.0                     | -2.9                     | .00                     |

Beaver Valley  
Listings of Meteorological Data  
for  
Periods of Ground-Level Gaseous Effluent Releases

Fourth Quarter 1989



PROGRAM: LIST VERSION: PC-1.0

LISTING FOR BEAVER VALLEY HOURLY METEOROLOGICAL DATA 150-FT LEVEL BATCH RELEASES FOR THE FOURTH QUARTER 1989

|             |     |      |        | -----35 FT----- |             |            |               | -----150 FT----- |            |               |             | -----500 FT----- |               |             |            |              |              |         |         |        |
|-------------|-----|------|--------|-----------------|-------------|------------|---------------|------------------|------------|---------------|-------------|------------------|---------------|-------------|------------|--------------|--------------|---------|---------|--------|
| YR MO DY HR |     |      |        | WIND<br>SPEED   | WIND<br>DIR | STD<br>DEV | WIND<br>SPEED | WIND<br>DIR      | STD<br>DEV | WIND<br>SPEED | WIND<br>DIR | STD<br>DEV       | WIND<br>SPEED | WIND<br>DIR | STD<br>DEV | AMP.<br>TEMP | DEW<br>POINT | DELTA T | DELTA T | RAIN   |
|             |     |      |        | (MPH)           | (DEG)       | SC         | (MPH)         | (DEG)            | SC         | (MPH)         | (DEG)       | SC               | (MPH)         | (DEG)       | SC         | (F)          | (F)          | 150-35  | 500-35  | FALL   |
|             |     |      |        |                 |             |            |               |                  |            |               |             |                  |               |             |            |              | (F)          | SC      | (F)     | SC(IN) |
| 89 11 22 14 | 4.1 | 84.  | 99.9 - | 7.1             | 81.         | 99.9 -     | 9.2           | 84.              | 99.9 -     | 28.4          | 18.2        | -7.7 D           | -2.8 D        | .00         |            |              |              |         |         |        |
| 89 11 22 15 | 3.1 | 54.  | 99.9 - | 7.8             | 69.         | 99.9 -     | 9.5           | 71.              | 99.9 -     | 28.1          | 19.2        | -7.7 D           | -2.7 D        | .00         |            |              |              |         |         |        |
| 89 12 1 19  | 1.5 | 01.  | 99.9 - | 3.6             | 57.         | 99.9 -     | 7.4           | 87.              | 99.9 -     | 32.9          | 27.4        | .4 E             | -8.8 E        | .00         |            |              |              |         |         |        |
| 89 12 1 20  | 1.1 | 68.  | 99.9 - | 3.0             | 92.         | 99.9 -     | 10.0          | 105.             | 99.9 -     | 30.3          | 26.3        | 1.1 F            | 1.3 E         | .00         |            |              |              |         |         |        |
| 89 12 1 21  | 1.0 | 198. | 99.9 - | 2.1             | 16.         | 99.9 -     | 10.8          | 133.             | 99.9 -     | 28.8          | 25.5        | 1.5 F            | 1.8 E         | .00         |            |              |              |         |         |        |
| 89 12 1 22  | 2.0 | 91.  | 99.9 - | 3.8             | 50.         | 99.9 -     | 8.1           | 144.             | 99.9 -     | 26.9          | 24.6        | 3.6 G            | 3.1 E         | .00         |            |              |              |         |         |        |
| 89 12 1 23  | 2.3 | 36.  | 99.9 - | 4.7             | 45.         | 99.9 -     | 6.2           | 139.             | 99.9 -     | 28.1          | 25.8        | 1.4 F            | .6 E          | .00         |            |              |              |         |         |        |
| 89 12 1 24  | 1.7 | 61.  | 99.9 - | 4.3             | 42.         | 99.9 -     | 6.0           | 141.             | 99.9 -     | 27.2          | 25.6        | 2.0 F            | 1.0 E         | .00         |            |              |              |         |         |        |
| 89 12 2 1   | 2.9 | 56.  | 99.9 - | 4.6             | 46.         | 99.9 -     | 8.5           | 142.             | 99.9 -     | 27.1          | 25.6        | 1.7 F            | 1.4 E         | .00         |            |              |              |         |         |        |
| 89 12 2 2   | 1.3 | 85.  | 99.9 - | 4.9             | 54.         | 99.9 -     | 5.7           | 132.             | 99.9 -     | 26.1          | 24.5        | 2.4 F            | 2.3 E         | .00         |            |              |              |         |         |        |
| 89 12 2 3   | 1.3 | 150. | 99.9 - | 4.0             | 29.         | 99.9 -     | 11.2          | 173.             | 99.9 -     | 26.4          | 24.8        | 1.8 F            | 3.2 E         | .00         |            |              |              |         |         |        |
| 89 12 7 2   | 5.2 | 340. | 99.9 - | 7.7             | 348.        | 99.9 -     | 9.8           | 332.             | 99.9 -     | 28.0          | 19.3        | -1.0 C           | -3.4 D        | .00         |            |              |              |         |         |        |
| 89 12 7 3   | 5.0 | 337. | 99.9 - | 8.0             | 342.        | 99.9 -     | 12.1          | 337.             | 99.9 -     | 26.7          | 16.5        | -1.0 C           | -3.1 D        | .01         |            |              |              |         |         |        |
| 89 12 7 4   | 2.9 | 346. | 99.9 - | 4.5             | 346.        | 99.9 -     | 6.8           | 331.             | 99.9 -     | 25.9          | 15.8        | -1.0 C           | -3.0 D        | .00         |            |              |              |         |         |        |
| 89 12 7 5   | 3.6 | 336. | 99.9 - | 5.4             | 342.        | 99.9 -     | 6.7           | 335.             | 99.9 -     | 25.0          | 14.4        | -9.9 D           | -3.0 D        | .00         |            |              |              |         |         |        |
| 89 12 7 6   | 3.7 | 341. | 99.9 - | 5.2             | 337.        | 99.9 -     | 7.9           | 344.             | 99.9 -     | 24.2          | 13.9        | -8.8 D           | -2.9 D        | .00         |            |              |              |         |         |        |
| 89 12 7 7   | 4.3 | 321. | 99.9 - | 5.7             | 313.        | 99.9 -     | 7.3           | 310.             | 99.9 -     | 23.7          | 13.7        | -5.5 D           | -2.8 D        | .00         |            |              |              |         |         |        |
| 89 12 7 8   | 4.7 | 318. | 99.9 - | 7.0             | 305.        | 99.9 -     | 10.2          | 308.             | 99.9 -     | 23.4          | 10.7        | -5.5 D           | -2.9 D        | .00         |            |              |              |         |         |        |
| 89 12 7 9   | 5.8 | 325. | 99.9 - | 7.8             | 319.        | 99.9 -     | 12.1          | 335.             | 99.9 -     | 22.8          | 10.8        | -5.5 D           | -3.2 D        | .00         |            |              |              |         |         |        |
| 89 12 7 10  | 7.2 | 348. | 99.9 - | 10.2            | 352.        | 99.9 -     | 12.0          | 345.             | 99.9 -     | 22.2          | 11.2        | -7.7 D           | -3.2 D        | .00         |            |              |              |         |         |        |
| 89 12 9 13  | 3.5 | 77.  | 99.9 - | 6.7             | 79.         | 99.9 -     | 7.6           | 90.              | 99.9 -     | 28.5          | 11.8        | -1.4 A           | -3.5 D        | .00         |            |              |              |         |         |        |
| 89 12 9 14  | 3.6 | 93.  | 99.9 - | 5.4             | 100.        | 99.9 -     | 7.2           | 108.             | 99.9 -     | 29.9          | 11.1        | -1.3 A           | -3.6 D        | .00         |            |              |              |         |         |        |
| 89 12 9 15  | 4.0 | 88.  | 99.9 - | 6.9             | 100.        | 99.9 -     | 8.2           | 111.             | 99.9 -     | 30.3          | 11.4        | -9.9 D           | -3.0 D        | .00         |            |              |              |         |         |        |
| 89 12 10 11 | 7.4 | 253. | 99.9 - | 9.9             | 250.        | 99.9 -     | 12.5          | 244.             | 99.9 -     | 26.6          | 20.9        | -5.5 D           | -2.4 D        | .00         |            |              |              |         |         |        |
| 89 12 10 12 | 6.3 | 249. | 99.9 - | 8.7             | 265.        | 99.9 -     | 10.9          | 256.             | 99.9 -     | 27.8          | 22.3        | -5.5 D           | -2.5 D        | .00         |            |              |              |         |         |        |
| 89 12 10 13 | 6.3 | 251. | 99.9 - | 9.0             | 257.        | 99.9 -     | 11.3          | 246.             | 99.9 -     | 28.8          | 22.7        | -6.6 D           | -2.7 D        | .00         |            |              |              |         |         |        |