

Omaha Public Power District  
444 South 16th Street Mall  
Omaha, Nebraska 68102-2247  
402/636-2000

February 21, 1992  
LIC-92-075R

U. S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Mail Station P1-137  
Washington, DC 20555

Reference: Docket No. 50-285

Gentlemen:

SUBJECT: Semi-Annual Radioactive Effluent Release Report and Annual  
Occupational Exposure Report

The enclosed report contains the Semi-Annual "Radioactive Effluent Release Report" for the period of July 1, 1991 through December 31, 1991 as required by Technical Specification 5.9.4.a and 10 CFR 50.36a. Also contained in the enclosed report is the 1991 "Annual Occupational Exposure Report" for January 1, 1991 through December 31, 1991 as required by Technical Specification 5.9.1.b.

If you should have any questions, please contact me.

Sincerely



W. G. Gates  
Division Manager  
Nuclear Operations

WGG/sel

Enclosure

c: LeBoeuf, Lamb, Leiby & MacRae  
D. L. Wigginton, NRC Senior Project Manager  
S. D. Bloom, NRC Project Engineer  
R. D. Martin, NRC Regional Administrator, Region IV  
R. P. Mullikin, NRC Senior Resident Inspector

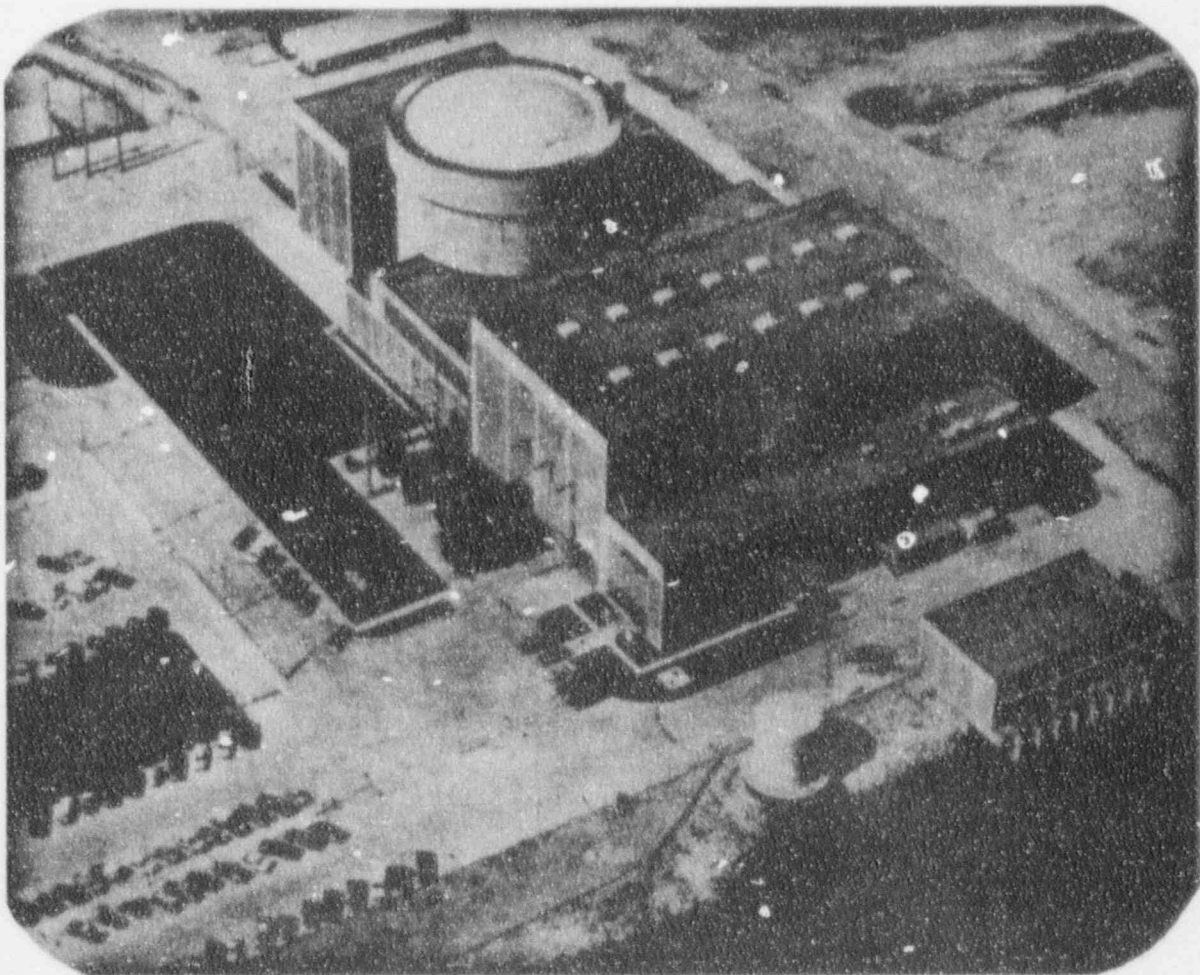
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# Omaha Public Power District Fort Calhoun Station Unit No. 1

Annual Report  
for  
Technical Specification  
Section 5.9.1.b.  
and Appendix B  
January 1, 1991 to  
December 31, 1991

Semi Annual Report  
for  
Technical Specification  
Section 5.9.4.a.  
July 1, 1991 to  
December 31, 1991 inclusive



Docket No. 50-285

Operating License No. DPR-40

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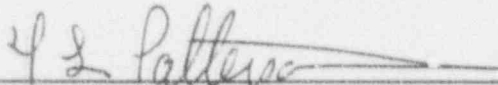
## INTRODUCTION

This report is submitted in accordance with Sections 5.9.1.b and 5.9.4.a of the Technical Specifications of Fort Calhoun Station Unit No. 1, Facility Operating License DPR-40.

This document contains the Annual Report for Technical Specification Section 5.9.1.b for the period January 1, 1991 through December 31, 1991 and the Semi-Annual Effluent Report for Technical Specification 5.9.4.a for the period July 1, 1991 through December 31, 1991. The Effluent Report is presented in the format outlined in Regulatory Guide 1.21, Revision 1.

In addition, this report provides the results of quarterly dose calculations performed in accordance with Technical Specification Sections 2.9.1(1)b and 2.9.1(2)b. Results are presented by quarter for the period July 1, 1991 thru December 31, 1991.

Further description of any changes made during the preceding six months to the Offsite Dose Calculation Manual and/or the Process Control Program for the Fort Calhoun Station are presented.

  
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T. L. Patterson  
Manager - Fort Calhoun Station

SECTION I

QUARTERLY DOSES FROM EFFLUENTS

Technical Specifications 2.9.1(1)b and 2.9.1(2)b

July 1, 1991 - December 31, 1991

## Quarterly Dose Calculation Results

July 1, 1991 thru December 31, 1991

With the implementation of the Fort Calhoun Station Radiological Effluent Technical Specifications (RETS) on October 1, 1985, radiation doses in the unrestricted area from liquid and gaseous effluents must be calculated on a quarterly basis in accordance with Sections 2.9.1(1)b and 2.9.1(2)b. These calculations are performed to ensure the annual dose limits delineated in Appendix I of 10 CFR Part 50 and implemented by the RETS are not exceeded. If the results of the quarterly calculations exceed fifty percent (50%) of the annual limits of Appendix I, actions are taken to reduce effluents so that resultant doses do not exceed the annual limits during the remainder of the year and a special report is submitted to the NRC.

This section presents the results of the quarterly dose calculations performed since July 1, 1991. Details are shown in Tables on Pages I-3 through I-4 as to the types, sources and resultant doses from the effluents, annual limits and a comparison to the annual limits.

As can be seen by review of the quarterly calculational results, OPPD is in compliance with the referenced Technical Specifications. The quarterly totals are well below the 50% annual dose acceptance criteria. In addition, the summation of the quarterly totals shows OPPD to be less than the annual limits and in compliance with the regulations and Technical Specifications.

QUARTERLY CUMULATIVE DOSE CONTRIBUTIONS FROM RADIOACTIVE EFFLUENTS

THIRD QUARTER, 1991

| <u>I. LIQUID EFFLUENTS:</u>            | <u>TOTAL BODY DOSE<br/>(mREM)</u> | <u>CRITICAL ORGAN DOSE<br/>(mREM)</u> |
|--|-----------------------------------|---------------------------------------|
| Monitor/Hotel Tank:                    | 2.47E-01                          | 3.42E-01                              |
| Steam Generator:                       | <u>1.27E-04</u>                   | <u>7.23E-07</u>                       |
| Totals:                                | 2.47E-01                          | 3.42E-01                              |
| T.S. 2.9.1 A. Annual Objective:        | 3.00E+00                          | 1.00E+01                              |
| <u>Percent of TS Annual Objective:</u> |                                   |                                       |
| This Quarter:                          | 8.23%                             | 3.42%                                 |
| Year to Date:                          | 16.80%                            | 7.03%                                 |

| <u>II. GASEOUS EFFLUENTS:</u>          | <u>TOTAL BODY GAMMA<br/>DOSE (mREM)</u> | <u>TOTAL BODY BETA<br/>DOSE (mREM)</u> |
|--|---|--|
| A. Noble Gas Air Dose:                 | 1.59E-02                                | 4.61E-02                               |
| T.S. 2.9.1 B. Annual Objective:        | 1.00E+01                                | 2.00E+01                               |
| <u>Percent of TS Annual Objective:</u> |   |  |
| This Quarter:                          | 0.16%                                   | 0.23%                                  |
| Year to Date:                          | 0.20%                                   | 0.27%                                  |

| <u>B. I-131, H-3, and Particulates<br/>with Half-Lives &gt; 8 Days</u> | <u>TOTAL BODY DOSE<br/>(mREM)</u> | <u>CRITICAL ORGAN DOSE<br/>(Thyroid, mREM)</u> |
|--|-----------------------------------|--|
| *Inhalation:   | 5.69E-06                          | 6.53E-05                                       |
| *Ground and Food:  | <u>5.70E-05</u>                   | <u>1.27E-02</u>                                |
| Totals:  | 6.26E-05                          | 1.28E-02                                       |
| T.S. 2.9.1.B. Annual Objective:  | 1.50E+01                          | 1.50E+01                                       |
| <u>Percent of TS Annual Objective:</u>                                 |                                   |  |
| This Quarter:  | 0.00%                             | 0.09%  |
| Year to Date:  | 0.00%                             | 0.35%  |

\* Using Highest of Infant or Child Dose Factors

QUARTERLY CUMULATIVE DOSE CONTRIBUTIONS FROM RADIOACTIVE EFFLUENTS\*\*

FOURTH QUARTER, 1991

| <u>I. LIQUID EFFLUENTS:</u>  | <u>TOTAL BODY DOSE<br/>(mREM)</u>       | <u>CRITICAL ORGAN DOSE<br/>(mREM)</u>          |
|--|---|--|
| Monitor/Hotel Tank:  | 3.68E-02                                | 5.01E-02                                       |
| Steam Generator:   | <u>1.29E-06</u>                         | <u>1.18E-06</u>                                |
| Totals:  | 3.68E-02                                | 5.01E-02                                       |
| T.S. 2.9.1.A. Annual Objective:  | 3.00E+00                                | 1.00E+01                                       |
| <u>Percent of TS Annual Objective:</u>                                 |   |  |
| This Quarter:  | 1.23%                                   | 0.50%  |
| Year to Date:  | 18.03%                                  | 7.53%  |
| <u>II. GASEOUS EFFLUENTS:</u>  | <u>TOTAL BODY GAMMA<br/>DOSE (mREM)</u> | <u>TOTAL BODY BETA<br/>DOSE (mREM)</u>         |
| A. Noble Gas Air Dose:   | 2.97E-03                                | 6.73E-03                                       |
| T.S. 2.9.1.B. Annual Objective:  | 1.00E+01                                | 2.00E+01                                       |
| <u>Percent of TS Annual Objective:</u>                                 |   |  |
| This Quarter:  | 0.03%                                   | 0.03%  |
| Year to Date:  | 0.23%                                   | 0.30%  |
| B. <u>I-131, H-3, and Particulates<br/>with Half-Lives &gt; 8 Days</u> | <u>TOTAL BODY DOSE<br/>(mREM)</u>       | <u>CRITICAL ORGAN DOSE<br/>(Thyroid, mREM)</u> |
| *Inhalation:   | 9.17E-07                                | 1.42E-05                                       |
| *Ground and Food:  | <u>1.89E-05</u>                         | <u>2.82E-03</u>                                |
| Totals:  | 1.98E-05                                | 2.83E-03                                       |
| T.S. 2.9.1.B. Annual Objective:  | 1.50E+01                                | 1.50E+01                                       |
| <u>Percent of TS Annual Objective:</u>                                 |   |  |
| This Quarter:  | 0.00%                                   | 0.02%  |
| Year to Date:  | 0.00%                                   | 0.37%  |

\* Highest of Infant or Child Dose Factors.

\*\* Strontium 89 and Strontium 90 dose contributions not included because results were not available at the time of this report. Values will be updated when results are received from the vendor.



SECTION II  
ANNUAL OCCUPATIONAL EXPOSURE REPORT

Technical Specification 5.9.1.b

January 1, 1991 through December 31, 1991

USNRC ANNUAL  
 REG GUIDE 16 REPORT  
 OMAHA PUBLIC POWER DISTRICT - NRC LICENSE: DPR-40  
 P.O. Box 399  
 Ft. Calhoun, NE 68023-0399

| WORK & JOB FUNCTION                          | NUMBER OF PERSONNEL (100.0 MREM) |                      |                              |                      | TOTAL MAN-REM        |                              |
|--|----------------------------------|----------------------|------------------------------|----------------------|----------------------|------------------------------|
|  | STATION<br>EMPLOYEES             | UTILITY<br>EMPLOYEES | CONTRACT WORKERS<br>& OTHERS | STATION<br>EMPLOYEES | UTILITY<br>EMPLOYEES | CONTRACT WORKERS<br>& OTHERS |
| <b>REACTOR OPERATIONS &amp; SURVEILLANCE</b> |                                  |                      |                              |                      |                      |                              |
| MAINTENANCE PERSONNEL                        | 1.003                            | 0.036                | 0.070                        | 0.220                | 0.010                | 0.020                        |
| OPERATING PERSONNEL                          | 8.369                            | 0.000                | 0.048                        | 3.191                | 0.000                | 0.005                        |
| HEALTH PHYSICS PERSONNEL                     | 16.515                           | 0.000                | 0.973                        | 4.906                | 0.000                | 0.145                        |
| SUPERVISORY PERSONNEL                        | 0.952                            | 0.000                | 0.000                        | 0.100                | 0.000                | 0.000                        |
| ENGINEERING PERSONNEL                        | 3.431                            | 0.000                | 0.000                        | 0.858                | 0.000                | 0.000                        |
| <b>ROUTINE MAINTENANCE</b>                   |                                  |                      |                              |                      |                      |                              |
| MAINTENANCE PERSONNEL                        | 8.591                            | 0.073                | 0.594                        | 1.535                | 0.020                | 0.160                        |
| OPERATING PERSONNEL                          | 0.203                            | 0.000                | 0.000                        | 0.765                | 0.000                | 0.000                        |
| HEALTH PHYSICS PERSONNEL                     | 3.730                            | 0.000                | 5.339                        | 1.254                | 0.000                | 1.807                        |
| SUPERVISORY PERSONNEL                        | 0.000                            | 0.000                | 0.000                        | 0.000                | 0.000                | 0.000                        |
| ENGINEERING PERSONNEL                        | 1.279                            | 0.000                | 2.337                        | 0.246                | 0.000                | 0.682                        |
| <b>INSERVICE INSPECTION</b>                  |                                  |                      |                              |                      |                      |                              |
| MAINTENANCE PERSONNEL                        | 0.076                            | 0.000                | 0.000                        | 0.010                | 0.000                | 0.000                        |
| OPERATING PERSONNEL                          | 0.000                            | 0.000                | 0.000                        | 0.000                | 0.000                | 0.000                        |
| HEALTH PHYSICS PERSONNEL                     | 0.049                            | 0.000                | 0.000                        | 0.020                | 0.000                | 0.000                        |
| SUPERVISORY PERSONNEL                        | 0.000                            | 0.000                | 0.000                        | 0.000                | 0.000                | 0.000                        |
| ENGINEERING PERSONNEL                        | 0.019                            | 0.000                | 0.000                        | 0.010                | 0.000                | 0.000                        |
| <b>SPECIAL MAINTENANCE</b>                   |                                  |                      |                              |                      |                      |                              |
| MAINTENANCE PERSONNEL                        | 16.453                           | 0.891                | 5.468                        | 3.374                | 0.245                | 3.511                        |
| OPERATING PERSONNEL                          | 0.428                            | 0.000                | 0.000                        | 0.085                | 0.000                | 0.000                        |
| HEALTH PHYSICS PERSONNEL                     | 6.776                            | 0.000                | 1.673                        | 3.157                | 0.000                | 0.445                        |
| SUPERVISORY PERSONNEL                        | 0.000                            | 0.000                | 0.000                        | 0.000                | 0.000                | 0.000                        |
| ENGINEERING PERSONNEL                        | 3.271                            | 0.000                | 21.500                       | 0.000                | 0.000                | 10.251                       |
| <b>WASTE PROCESSING</b>                      |                                  |                      |                              |                      |                      |                              |
| MAINTENANCE PERSONNEL                        | 0.172                            | 0.000                | 0.000                        | 0.020                | 0.000                | 0.000                        |
| OPERATING PERSONNEL                          | 0.000                            | 0.000                | 0.000                        | 0.000                | 0.000                | 0.000                        |
| HEALTH PHYSICS PERSONNEL                     | 2.930                            | 0.000                | 2.316                        | 1.470                | 0.000                | 0.475                        |
| SUPERVISORY PERSONNEL                        | 0.000                            | 0.000                | 0.000                        | 0.000                | 0.000                | 0.000                        |
| ENGINEERING PERSONNEL                        | 0.000                            | 0.000                | 0.000                        | 0.000                | 0.000                | 0.000                        |
| <b>REFUELING</b>                             |                                  |                      |                              |                      |                      |                              |
| MAINTENANCE PERSONNEL                        | 0.107                            | 0.000                | 0.000                        | 0.015                | 0.000                | 0.000                        |
| OPERATING PERSONNEL                          | 0.000                            | 0.000                | 0.000                        | 0.000                | 0.000                | 0.000                        |
| HEALTH PHYSICS PERSONNEL                     | 0.000                            | 0.000                | 0.000                        | 0.000                | 0.000                | 0.000                        |
| SUPERVISORY PERSONNEL                        | 0.000                            | 0.000                | 0.000                        | 0.000                | 0.000                | 0.000                        |
| ENGINEERING PERSONNEL                        | 0.000                            | 0.000                | 0.000                        | 0.000                | 0.000                | 0.000                        |
| <b>TOTALS</b>                                |                                  |                      |                              |                      |                      |                              |
| MAINTENANCE PERSONNEL                        | 26.403                           | 1.000                | 6.132                        | 5.174                | 0.275                | 3.691                        |
| OPERATING PERSONNEL                          | 9.000                            | 0.000                | 0.048                        | 3.341                | 0.000                | 0.005                        |
| HEALTH PHYSICS PERSONNEL                     | 24.000                           | 0.000                | 10.000                       | 10.807               | 0.000                | 2.672                        |
| SUPERVISORY PERSONNEL                        | 0.952                            | 0.000                | 0.000                        | 0.100                | 0.000                | 0.000                        |
| ENGINEERING PERSONNEL                        | 8.000                            | 0.000                | 23.837                       | 1.924                | 0.000                | 10.933                       |
| <b>GRAND TOTALS</b>                          | <b>68</b>                        | <b>1</b>             | <b>40</b>                    | <b>21.346</b>        | <b>0.275</b>         | <b>17.501</b>                |

NOTE: THIS DATA IS COMPILED THROUGH SELF READING DOSIMETER MEASUREMENTS. THE OFFICIAL STATION TOTAL EXPOSURE FOR 1991 RECORDED BY TL. MEASUREMENTS IS 51.896 PERSON REMS.

ANNUAL OCCUPATIONAL RADIATION EXPOSURE 10CFR20 REPORT  
PERSONNEL WHOLE BODY EXPOSURE FOR CALENDAR YEAR 1991  
P.O. Box 399

Ft. Calhoun, NE 68023-0399

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OMAHA PUBLIC POWER DISTRICT - NRC LICENSE: DPR-40  
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| ANNUAL DOSE RANGES *<br>(REM) | NUMBER OF INDIVIDUALS<br>IN EACH RANGE |
|-------------------------------|--|
| NO MEASURABLE EXPOSURE        | 766                                    |
| MEASURABLE EXPOSURE < 0.100   | 162                                    |
| 0.10 - 0.25                   | 52                                     |
| 0.25 - 0.50                   | 42                                     |
| 0.50 - 0.75                   | 13                                     |
| 0.75 - 1.00                   | 10                                     |
| 1.00 - 2.00                   | 5                                      |
| 2.00 - 3.00                   | 0                                      |
| 3.00 - 4.00                   | 0                                      |
| 4.00 - 5.00                   | 0                                      |
| 5.00 - 6.00                   | 0                                      |
| 6.00 - 7.00                   | 0                                      |
| 7.00 - 8.00                   | 0                                      |
| 8.00 - 9.00                   | 0                                      |
| 9.00 -10.00                   | 0                                      |
| 10.00-11.00                   | 0                                      |
| 11.00-12.00                   | 0                                      |
| 12 +                          | 0                                      |

-----  
TOTAL NUMBER OF INDIVIDUALS REPORTED: 1050  
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The above information is submitted for:

- (1) - The total number of individuals for whom personnel monitoring was required under 10CFR 20.202(a) or 10CFR 34.33(a) during the calendar year,
- OR (2) - The total number of individuals for whom personnel monitoring was provided during the calendar year including (1) above.

\* Individual values exactly equal to the values separating exposure ranges are reported in the higher range.

SECTION III

RADIOACTIVE EFFLUENT RELEASES - GASEOUS EFFLUENTS

Technical Specification 5.9.4.a

|          |   |
|----------|---|
| Table 1A | Gaseous Effluents - Summation of All Releases |
| Table 1B | Not Applicable                                |
| Table 1C | Gaseous Effluents - Summation of All Releases |

July 1, 1991 - December 31, 1991

## Radioactive Effluent Releases - Third and Fourth Quarters

### GASEOUS EFFLUENTS

Radioactive gaseous releases for the reporting period totaled  $3.16E+02$  Curies of inert gases. Over the third and fourth quarters of the reporting period, the gross gaseous activity release rates were  $3.49E+01$   $\mu\text{Ci}/\text{sec}$  and  $4.84E+00$   $\mu\text{Ci}/\text{Sec}$ , respectively.

Radioactive halogens and particulates with half-lives greater than eight days released during the reporting period totaled  $9.79E-05$  Curies. Over the third and fourth quarters of the reporting period, the halogen release rates were  $5.93E-06$   $\mu\text{Ci}/\text{sec}$  and  $1.30E-06$   $\mu\text{Ci}/\text{sec}$ , respectively. The release rate for particulates with half lives greater than 8 days during the third and fourth quarters were  $4.95E-06$   $\mu\text{Ci}/\text{sec}$  and  $1.51E-07$   $\mu\text{Ci}/\text{sec}$ , respectively.

Total radioactive tritium released during the reporting period totaled  $2.89E-01$  Curies. Gross alpha radioactivity released during the reporting period totaled  $4.74E-06$  curies.

## EFFLUENT AND WASTE DISPOSAL REPORT

## GASEOUS EFFLUENTS-SUMMATION OF ALL RELEASES

SEMIANNUAL FOR JULY THRU DEC 91

| NUCLIDES IN CURIES                       | 3 QUARTER |          |          | 4 QUARTER |          |          | TOTAL    |          |          |          |
|--|-----------|----------|----------|-----------|----------|----------|----------|----------|----------|----------|
|  | CONT      | DECAY    | RMD60    | RMD41     | CONT     | DECAY    |          | RMD60    | RMD41    | TOTAL    |
| <b>A. FISSION&amp;ACTIVATION GASES</b>   |           |          |          |           |          |          |          |          |          |          |
| TOTAL RELEASE                            | CI        | 2.77E+02 | 3.17E-01 | 0.00E+00  | 0.00E+00 | 2.77E+02 | 3.73E+01 | 1.19E+00 | 0.00E+00 | 3.85E+01 |
| AVG RELEASE RATE FOR PERIOD              | UCI/SEC   | 3.48E+01 | 3.99E-02 | 0.00E+00  | 0.00E+00 | 3.49E+01 | 4.69E+00 | 1.50E-01 | 0.00E+00 | 4.84E+00 |
| PERCENT OF LIMIT TECH SPEC = NONE        | %         |          |          |           |          |          |          |          |          |          |
| <b>B. IODINES</b>                        |           |          |          |           |          |          |          |          |          |          |
| TOTAL RELEASE                            | CI        | 0.00E+00 | 0.00E+00 | 3.97E-05  | 7.42E-06 | 4.71E-05 | 0.00E+00 | 0.00E+00 | 7.20E-06 | 1.03E-05 |
| AVG RELEASE RATE FOR PERIOD              | UCI/SEC   | 0.00E+00 | 0.00E+00 | 5.00E-06  | 9.33E-07 | 5.93E-06 | 0.00E+00 | 0.00E+00 | 9.06E-07 | 1.30E-06 |
| PERCENT OF LIMIT TECH SPEC = NONE        | %         |          |          |           |          |          |          |          |          |          |
| <b>C. PARTICULATES</b>                   |           |          |          |           |          |          |          |          |          |          |
| PARTICULATES WITH HALF LIVES .GT. 8 DAYS | CI        | 0.00E+00 | 0.00E+00 | 1.32E-05  | 2.61E-05 | 3.93E-05 | 0.00E+00 | 0.00E+00 | 1.20E-06 | 1.20E-06 |
| AVG RELEASE RATE FOR PERIOD              | UCI/SEC   | 0.00E+00 | 0.00E+00 | 1.66E-06  | 3.29E-06 | 4.95E-06 | 0.00E+00 | 0.00E+00 | 1.51E-07 | 1.51E-07 |
| PERCENT OF LIMIT TECH SPEC = NONE        | %         |          |          |           |          |          |          |          |          |          |
| GROSS ALPHA RADIOACTIVITY                | CI        | 0.00E+00 | 0.00E+00 | 2.98E-06  | 2.24E-07 | 3.20E-06 | 0.00E+00 | 0.00E+00 | 1.24E-06 | 1.54E-06 |
| <b>D. TRITIUM</b>                        |           |          |          |           |          |          |          |          |          |          |
| TOTAL RELEASE                            | CI        | 2.49E-01 | 0.00E+00 | 0.00E+00  | 0.00E+00 | 2.49E-01 | 3.95E-02 | 0.00E+00 | 0.00E+00 | 3.95E-02 |
| AVG RELEASE RATE FOR PERIOD              | UCI/SEC   | 3.13E-02 | 0.00E+00 | 0.00E+00  | 0.00E+00 | 3.13E-02 | 4.97E-03 | 0.00E+00 | 0.00E+00 | 4.97E-03 |
| PERCENT OF LIMIT TECH SPEC = NONE        | %         |          |          |           |          |          |          |          |          |          |

Note: Lower Limit of Detection (LLD) is reported as "0.00E+00".

EFFLUENT AND WASTE DISPOSAL REPORT

GASEOUS EFFLUENTS-SUMMATION OF ALL RELEASES

SEMIANNUAL FOR JULY THRU DEC 81

| NUCLIDES IN CURIES                             | 3 QUARTER |          |          | 4 QUARTER |          |          | TOTAL    |
|--|-----------|----------|----------|-----------|----------|----------|----------|
|  | CONT      | DECAY    | RM060    | CONT      | DECAY    | RM060    |          |
| <b>F I S I O N G A S E S</b>                   |           |          |          |           |          |          |          |
| XENON-133                                      | 2.73E+02  | 2.34E-01 | 0.00E+00 | 0.00E+00  | 2.74E+02 | 0.00E+00 | 3.66E+01 |
| KRYPTON-85M                                    | 1.51E-02  | 0.00E+00 | 0.00E+00 | 0.00E+00  | 1.51E-02 | 0.00E+00 | 2.07E-02 |
| XENON-131M                                     | 1.12E+00  | 1.01E-02 | 0.00E+00 | 0.00E+00  | 1.13E+00 | 0.00E+00 | 1.10E-01 |
| KRYPTON-86                                     | 0.00E+00  | 0.00E+00 | 0.00E+00 | 0.00E+00  | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| XENON-133M                                     | 1.58E+00  | 0.00E+00 | 0.00E+00 | 0.00E+00  | 1.58E+00 | 0.00E+00 | 2.87E-01 |
| XENON-135                                      | 4.84E-01  | 0.00E+00 | 0.00E+00 | 0.00E+00  | 4.84E-01 | 0.00E+00 | 5.73E-01 |
| KRYPTON-87                                     | 0.00E+00  | 0.00E+00 | 0.00E+00 | 0.00E+00  | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| XENON-138                                      | 0.00E+00  | 0.00E+00 | 0.00E+00 | 0.00E+00  | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| KRYPTON-85                                     | 0.00E+00  | 7.27E-02 | 0.00E+00 | 0.00E+00  | 7.27E-02 | 0.00E+00 | 3.39E-01 |
| XENON-135M                                     | 0.00E+00  | 0.00E+00 | 0.00E+00 | 0.00E+00  | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| ARGON-41                                       | 3.97E-01  | 0.00E+00 | 0.00E+00 | 0.00E+00  | 3.97E-01 | 0.00E+00 | 5.22E-01 |
| TOTAL FOR PERIOD                               | 2.77E+02  | 3.17E-01 | 0.00E+00 | 0.00E+00  | 2.77E+02 | 0.00E+00 | 3.85E+01 |
| <b>I O D I N E S</b>                           |           |          |          |           |          |          |          |
| IODINE-131 CTD.                                | 0.00E+00  | 0.00E+00 | 3.07E-05 | 7.42E-06  | 4.71E-05 | 0.00E+00 | 1.03E-05 |
| IODINE-133 CTD.                                | 0.00E+00  | 0.00E+00 | 0.00E+00 | 0.00E+00  | 0.00E+00 | 0.00E+00 | 6.03E-06 |
| IODINE-135 CTD.                                | 0.00E+00  | 0.00E+00 | 0.00E+00 | 0.00E+00  | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| TOTAL FOR PERIOD                               | 0.00E+00  | 0.00E+00 | 3.07E-05 | 7.42E-06  | 4.71E-05 | 0.00E+00 | 1.83E-05 |
| <b>P A R T I C U L A T E S</b>                 |           |          |          |           |          |          |          |
| STRONTIUM-89                                   | 0.00E+00  | 0.00E+00 | 0.00E+00 | 0.00E+00  | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| STRONTIUM-90                                   | 0.00E+00  | 0.00E+00 | 5.95E-08 | 0.00E+00  | 5.95E-08 | 0.00E+00 | 0.00E+00 |
| CARBON-14                                      | 0.00E+00  | 0.00E+00 | 0.00E+00 | 0.00E+00  | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| IRON-55  | 0.00E+00  | 0.00E+00 | 1.31E-05 | 2.61E-05  | 3.93E-05 | 0.00E+00 | 0.00E+00 |
| IODINE-129                                     | 0.00E+00  | 0.00E+00 | 0.00E+00 | 0.00E+00  | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| NICKEL-63                                      | 0.00E+00  | 0.00E+00 | 0.00E+00 | 0.00E+00  | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| PHOSPHORUS-32                                  | 0.00E+00  | 0.00E+00 | 0.00E+00 | 0.00E+00  | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| IODINE-131 PRF.                                | 0.00E+00  | 0.00E+00 | 0.00E+00 | 0.00E+00  | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| IODINE-132 PRF.                                | 0.00E+00  | 0.00E+00 | 0.00E+00 | 0.00E+00  | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| BARIUM-140                                     | 0.00E+00  | 0.00E+00 | 0.00E+00 | 0.00E+00  | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| CESIUM-137                                     | 0.00E+00  | 0.00E+00 | 0.00E+00 | 0.00E+00  | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| CESIUM-134                                     | 0.00E+00  | 0.00E+00 | 0.00E+00 | 0.00E+00  | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| COBALT-58                                      | 0.00E+00  | 0.00E+00 | 0.00E+00 | 0.00E+00  | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| MANGANESE-54                                   | 0.00E+00  | 0.00E+00 | 0.00E+00 | 0.00E+00  | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| COBALT-60                                      | 0.00E+00  | 0.00E+00 | 0.00E+00 | 0.00E+00  | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| IODINE-135 PRF.                                | 0.00E+00  | 0.00E+00 | 0.00E+00 | 0.00E+00  | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| LANTHANUM-140                                  | 0.00E+00  | 0.00E+00 | 0.00E+00 | 0.00E+00  | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| CERIUM-144                                     | 0.00E+00  | 0.00E+00 | 0.00E+00 | 0.00E+00  | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| CERIUM-141                                     | 0.00E+00  | 0.00E+00 | 0.00E+00 | 0.00E+00  | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| MOLYBDENUM-99                                  | 0.00E+00  | 0.00E+00 | 0.00E+00 | 0.00E+00  | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| IRON-59  | 0.00E+00  | 0.00E+00 | 0.00E+00 | 0.00E+00  | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| ZINC-65  | 0.00E+00  | 0.00E+00 | 0.00E+00 | 0.00E+00  | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| TOTAL FOR PERIOD                               | 0.00E+00  | 0.00E+00 | 1.32E-05 | 2.61E-05  | 3.93E-05 | 0.00E+00 | 1.20E-06 |
| <b>T R I T I U M &amp; G R O S S A L P H A</b> |           |          |          |           |          |          |          |
| TRITIUM  | 2.49E-01  | 0.00E+00 | 0.00E+00 | 0.00E+00  | 2.49E-01 | 0.00E+00 | 3.95E-02 |
| GROSS ALPHA                                    | 0.00E+00  | 0.00E+00 | 2.98E-06 | 2.24E-07  | 3.20E-06 | 0.00E+00 | 1.54E-06 |

Note: Lower Limit of Detection (LLD) is reported as "0.00E+00". \*Strontium-89 and Strontium-90 dose contributions for the fourth quarter were not available for this report. These values will be updated when results are received from the vendor. Yttrium-90 activity is equal to Strontium-90 (Sr-90/Y-90 secular equilibrium) for the third and fourth quarters. Yttrium-90 quantities are not shown on this table, but are included in GASPAR Dose Calculations.

SECTION IV

RADIOACTIVE EFFLUENT RELEASES - LIQUID EFFLUENTS

Technical Specification (5.9.4.a)

Table 2A Liquid Effluents - Summation of All Releases

Table 2B Liquid Effluents - Summation of All Releases

July 1, 1991 - December 31, 1991



## Radioactive Effluent Releases - Third and Fourth Quarters

### LIQUID EFFLUENTS

During the reporting period, a total of  $9.89\text{E-}01$  Curies of radioactive liquid materials less tritium, dissolved noble gases, and alpha were released to the Missouri River at an average concentration of  $3.00\text{E-}09$   $\mu\text{Ci/ml}$ . This represents 3.0% of the limits specified in Appendix B to 10 CFR Part 20 ( $1.0\text{E-}07$   $\mu\text{Ci/ml}$ ) for unrestricted areas.  $1.055\text{E+}02$  Curies of tritium were discharged at an average diluted concentration  $3.07\text{E-}07$   $\mu\text{Ci/ml}$  or  $1.02\text{E-}02\%$  of MPC ( $3.0\text{E-}03$   $\mu\text{Ci/ml}$ ). Gross alpha radioactivity released during the reporting period totaled  $1.15\text{E-}03$  Curies.

Dilution water during the period amounted to  $3.48\text{E+}11$  liters, while radioactive liquid waste volume was  $6.22\text{E+}07$  liters.

## EFFLUENT AND WASTE DISPOSAL REPORT

## LIQUID EFFLUENTS-SUMMATION OF ALL RELEASES

SEMIANNUAL FOR JULY THRU DEC 91

|  | 3 QUARTER | 4 QUARTER |
|--|-----------|-----------|
| A. FISSION&ACTIVATION PRODUCTS                 |           |           |
| TOTAL RELEASE (NO TRITIUM,GAS,ALPHA) CI        | 9.47E-01  | 4.17E-02  |
| AVG DILUTED CONCENTRATION UCI/ML               | 5.77E-09  | 2.27E-10  |
| PERCENT OF LIMIT 10 CFR 20, APP. B = 1.0E-07 % | 5.77E+00  | 2.27E-01  |
| B. TRITIUM                                     |           |           |
| TOTAL RELEASE CI                               | 6.02E+01  | 4.53E+01  |
| AVG DILUTED CONCENTRATION UCI/ML               | 3.67E-07  | 2.47E-07  |
| PERCENT OF LIMIT 10 CFR 20, APP. B = 3.0E-03 % | 1.22E-02  | 8.23E-03  |
| C. DISSOLVED&ENTRAINED GASES                   |           |           |
| TOTAL RELEASE CI                               | 4.89E-02  | 3.12E-01  |
| AVG DILUTED CONCENTRATION UCI/ML               | 2.98E-10  | 1.70E-09  |
| PERCENT OF LIMIT TECH SPEC = 2.0E-04 UCI/ML %  | 1.49E-04  | 8.49E-04  |
| D. GROSS ALPHA RADIOACTIVITY                   |           |           |
| TOTAL RELEASE CI                               | 5.77E-04  | 5.76E-04  |
| E. VOLUME OF WASTE RELEASE                     |           |           |
| PRIOR TO DIL. LITERS                           | 3.16E+07  | 3.06E+07  |
| F. VOLUME OF DILUTION WATER                    |           |           |
| THIS PERIOD LITERS                             | 1.64E+11  | 1.84E+11  |

## EFFLUENT AND WASTE DISPOSAL REPORT

## LIQUID EFFLUENTS-SUMMATION OF ALL RELEASES

SEMIANNUAL FOR JULY THRU DEC 91

| NUCLIDES IN CURIES     | 3 QUARTER |          | 4 QUARTER |          |
|------------------------|-----------|----------|-----------|----------|
|                        | CONT      | BATCH    | CONT      | BATCH    |
| STRONTIUM-89           | 0.00E+00  | 7.98E-06 | 0.00E+00  | 0.00E+00 |
| STRONTIUM-90           | 7.35E-05  | 5.23E-05 | 0.00E+00  | 0.00E+00 |
| CARBON-14              | 0.00E+00  | 8.55E-01 | 0.00E+00  | 0.00E+00 |
| IRON-55                | 0.00E+00  | 2.80E-02 | 0.00E+00  | 0.00E+00 |
| IODINE-129             | 0.00E+00  | 0.00E+00 | 0.00E+00  | 0.00E+00 |
| NICKEL-63              | 0.00E+00  | 0.00E+00 | 0.00E+00  | 0.00E+00 |
| PHOSPHORUS-32          | 0.00E+00  | 0.00E+00 | 0.00E+00  | 0.00E+00 |
| COBALT-57              | 0.00E+00  | 0.00E+00 | 0.00E+00  | 0.00E+00 |
| MOLYBDENUM-99          | 0.00E+00  | 0.00E+00 | 0.00E+00  | 1.11E-04 |
| TECHNETIUM-99M         | 0.00E+00  | 0.00E+00 | 0.00E+00  | 9.43E-05 |
| CERIUM-141             | 0.00E+00  | 0.00E+00 | 0.00E+00  | 0.00E+00 |
| TIN-117M               | 0.00E+00  | 0.00E+00 | 0.00E+00  | 0.00E+00 |
| CHROMIUM-51            | 0.00E+00  | 0.00E+00 | 0.00E+00  | 0.00E+00 |
| IODINE-131             | 0.00E+00  | 6.01E-05 | 0.00E+00  | 2.26E-02 |
| IODINE-133             | 0.00E+00  | 0.00E+00 | 0.00E+00  | 1.75E-03 |
| BARIUM-140             | 0.00E+00  | 0.00E+00 | 0.00E+00  | 2.74E-04 |
| RUTHENIUM-103          | 0.00E+00  | 0.00E+00 | 0.00E+00  | 0.00E+00 |
| CESIUM-137             | 0.00E+00  | 2.88E-02 | 0.00E+00  | 3.94E-03 |
| ZIRCONIUM-95           | 0.00E+00  | 0.00E+00 | 0.00E+00  | 0.00E+00 |
| NIObIUM-95             | 0.00E+00  | 1.50E-05 | 0.00E+00  | 0.00E+00 |
| CESIUM-134             | 0.00E+00  | 1.48E-02 | 0.00E+00  | 2.72E-03 |
| COBALT-58              | 0.00E+00  | 5.48E-03 | 0.00E+00  | 5.68E-03 |
| MANGANESE-54           | 0.00E+00  | 1.75E-05 | 0.00E+00  | 2.33E-04 |
| CESIUM-136             | 0.00E+00  | 7.57E-05 | 0.00E+00  | 0.00E+00 |
| IRON-59                | 0.00E+00  | 0.00E+00 | 0.00E+00  | 0.00E+00 |
| ZINC-65                | 0.00E+00  | 0.00E+00 | 0.00E+00  | 0.00E+00 |
| COBALT-60              | 0.00E+00  | 9.40E-03 | 2.34E-05  | 1.45E-03 |
| LANTHANUM-140          | 0.00E+00  | 0.00E+00 | 0.00E+00  | 2.54E-04 |
| ANTIMONY-124           | 0.00E+00  | 0.00E+00 | 0.00E+00  | 0.00E+00 |
| CERIUM-144             | 0.00E+00  | 0.00E+00 | 0.00E+00  | 0.00E+00 |
| ANTIMONY-125           | 0.00E+00  | 5.27E-03 | 0.00E+00  | 2.63E-03 |
| SILVER-110M            | 0.00E+00  | 5.42E-04 | 0.00E+00  | 1.63E-05 |
| RUTHENIUM-106          | 0.00E+00  | 0.00E+00 | 0.00E+00  | 0.00E+00 |
| SELENIUM-75            | 0.00E+00  | 0.00E+00 | 0.00E+00  | 0.00E+00 |
| ANTIMONY-126           | 0.00E+00  | 0.00E+00 | 0.00E+00  | 0.00E+00 |
| TOTAL FOR PERIOD       | 7.35E-05  | 9.47E-01 | 2.34E-05  | 4.17E-02 |
| DISSOLVED GASES        |           |          |           |          |
| ENTRAINED GASES        |           |          |           |          |
| XENON-133              | 1.52E-03  | 4.69E-02 | 0.00E+00  | 3.09E-01 |
| XENON-135              | 4.68E-04  | 0.00E+00 | 0.00E+00  | 5.01E-04 |
| XENON-131M             | 0.00E+00  | 0.00E+00 | 0.00E+00  | 6.29E-04 |
| XENON-133M             | 0.00E+00  | 0.00E+00 | 0.00E+00  | 2.14E-03 |
| TOTAL FOR PERIOD       | 1.99E-03  | 4.69E-02 | 0.00E+00  | 3.12E-01 |
| OTHER, ALPHA & TRITIUM |           |          |           |          |
| ALPHA                  | 4.26E-04  | 1.51E-04 | 5.47E-04  | 2.87E-05 |
| TRITIUM                | 1.18E-01  | 6.01E+01 | 1.50E-01  | 4.52E+01 |
| GROSS BETA/GAMMA       | 0.00E+00  | 0.00E+00 | 0.00E+00  | 0.00E+00 |
| TOTAL FOR PERIOD       | 1.18E-01  | 6.01E+01 | 1.50E-01  | 4.52E+01 |
| AVG. CONC. IN UCI/ML   |           |          |           |          |
| ALPHA                  | 1.19E-11  | 5.03E-11 | 9.11E-12  | 1.12E-11 |
| TRITIUM                | 3.26E-09  | 2.73E-05 | 3.00E-09  | 2.04E-05 |

Yttrium-90 activity is equal to Strontium-90 (Sr-90/Y-90 secular equilibrium) for the third and fourth quarters. Yttrium-90 quantities are not shown on this table, but are included in LADTAP Dose Calculations.

Strontium-89 and Strontium-90 dose contributions for the fourth quarter were not available for this report. These values will be updated when results are received from the vendor.

Note: Lower Limit of Detection (LLD) is reported as "0.00E+00".

SECTION V

RADIOACTIVE EFFLUENT RELEASES - SOLID RADIOACTIVE WASTE

Technical Specification (5.9.4.a)

July 1, 1991 - December 31, 1991

RADIOACTIVE EFFLUENT RELEASES - SOLID RADIOACTIVE  
WASTE EFFLUENT AND WASTE DISPOSAL REPORT

July 1, 1991 thru December 31, 1991

SOLID WASTE AND IRRADIATED FUEL SHIPMENTS

A. SOLID WASTE SHIPPED OFFSITE FOR BURIAL (NOT IRRADIATED)

| 1. <u>Type of Waste</u>  | <u>Month Shipped</u> | <u>Number of Shipments</u> | <u>Volume Cu. Meter</u> | <u>Curie Content</u> | <u>Est. Total % Error</u> |
|--|----------------------|----------------------------|-------------------------|----------------------|---------------------------|
| a. Spent resins,<br>filter sludges,<br>evaporator<br>bottoms, etc. | Jul.                 | 0                          | 0                       | 0                    | N/A                       |
|  | Aug.                 | 0                          | 0                       | 0                    | N/A                       |
|  | Sept.                | 0                          | 0                       | 0                    | N/A                       |
|  | Oct.                 | 0                          | 0                       | 0                    | N/A                       |
|  | Nov.                 | 0                          | 0                       | 0                    | N/A                       |
|  | Dec.                 | 1                          | 3.40                    | 11.566               | 20                        |
| <i>Six-month Total (Type A)</i>                                    |                      | <u>1</u>                   | <u>3.40</u>             | <u>11.566</u>        |                           |
| b. Dry compressible,<br>contaminated<br>equipment, etc.            | Jul.                 | 3                          | 3.65                    | 0.065                | 20                        |
|  | Aug.                 | 8                          | 3.57                    | 0.053                | 20                        |
|  | Sept.                | 11                         | 5.31                    | 0.045                | 20                        |
|  | Oct.                 | 5                          | 0.91                    | 0.010                | 20                        |
|  | Nov.                 | 2                          | 0.22                    | 0.001                | 20                        |
|  | Dec.                 | 14                         | 6.0 <sup>5</sup>        | 0.069                | 20                        |
| <i>Six-month Total (Type B)</i>                                    |                      | <u>43</u>                  | <u>19.71</u>            | <u>0.243</u>         |                           |
| c. Irradiated compo-<br>nents and other<br>categories              | Jul.                 | 0                          | 0                       | 0                    | N/A                       |
|  | Aug.                 | 0                          | 0                       | 0                    | N/A                       |
|  | Sept.                | 0                          | 0                       | 0                    | N/A                       |
|  | Oct.                 | 0                          | 0                       | 0                    | N/A                       |
|  | Nov.                 | 0                          | 0                       | 0                    | N/A                       |
|  | Dec.                 | 0                          | 0                       | 0                    | N/A                       |
| <i>Six-month Total (Type C)</i>                                    |                      | <u>0</u>                   | <u>0</u>                | <u>0</u>             | N/A                       |
| d. Other   | Jul.                 | 0                          | 0                       | 0                    | N/A                       |
|  | Aug.                 | 0                          | 0                       | 0                    | N/A                       |
|  | Sept.                | 0                          | 0                       | 0                    | N/A                       |
|  | Oct.                 | 0                          | 0                       | 0                    | N/A                       |
|  | Nov.                 | 0                          | 0                       | 0                    | N/A                       |
|  | Dec.                 | 0                          | 0                       | 0                    | N/A                       |
| <i>Six-month Total (Type D)</i>                                    |                      | <u>0</u>                   | <u>0</u>                | <u>0</u>             | N/A                       |

RADIOACTIVE EFFLUENT RELEASES - SOLID RADIOACTIVE  
WASTE EFFLUENT AND WASTE DISPOSAL REPORT  
(Continued)

B. ESTIMATE OF MAJOR NUCLIDE COMPOSITION (By Type of Waste)

1. Percentage of Curies from Represented Isotopes

| <u>Isotope</u> | <u>Percent</u> | <u>Curies</u> |  |
|----------------|----------------|---------------|--|
| a. Cs-137      | 53.4           | 6.180         | All other nuclides<br>are <1% of waste |
| C-14           | 17.8           | 2.060         |  |
| Cs-134         | 8.8            | 1.010         |  |
| H-3            | 7.6            | 0.881         |  |
| Fe-55          | 5.4            | 0.626         |  |
| Co-60          | 3.4            | 0.389         |  |
| Co-58          | 1.6            | 0.190         |  |
| b. Cs-137      | 65.0           | 0.158         |  |
| Tc-99          | 11.9           | 0.029         |  |
| Cs-134         | 6.8            | 0.017         |  |
| Mo-99          | 6.2            | 0.015         |  |
| Ag-110m        | 4.6            | 0.011         |  |
| Co-60          | 2.0            | 0.005         |  |
| Be-7           | 1.3            | 0.003         |  |
| Co-58          | 1.1            | 0.003         |  |
| c. N/A         | N/A            | N/A           |  |
| d. N/A         | N/A            | N/A           |  |

C. SOLID WASTE (DISPOSITION)

| <u>Number of Shipments</u> | <u>Transportation Mode</u> | <u>Destination</u>       |
|----------------------------|----------------------------|--------------------------|
| 9                          | Closed Sole Use Vehicle    | Barnwell, South Carolina |
| 35                         | Closed Sole Use Vehicle    | Beatty, Nevada           |

D. IRRADIATED FUEL SHIPMENTS (DISPOSITION)

| <u>Number of Shipments</u> | <u>Transportation Mode</u> | <u>Destination</u> |
|----------------------------|----------------------------|--------------------|
| N/A                        | N/A                        | N/A                |

RADIOACTIVE EFFLUENT RELEASES - SOLID RADIOACTIVE  
WASTE EFFLUENT AND WASTE DISPOSAL REPORT  
(Continued)

- E. PCP and ODCM Revisions for the Period July 1, 1991 - December 31, 1991  
In accordance with Technical Specification 5.9.4.a, the radioactive effluent release report shall include any revisions to the Offsite Dose Calculation Manual (ODCM) and the Process Control Program (PCP).

No revisions were made to the ODCM.

One revision to the Process Control Program (PCP) was made on 11/27/91. This revision reflects the change in vendor for liquid radwaste processing.

SECTION VI

JOINT FREQUENCY DISTRIBUTION WIND DIRECTION VS. WIND  
SPEED BY STABILITY CLASS AND METEOROLOGICAL DATA  
PER BATCH RELEASE

(Regulatory Guide 1.21)

July 1, 1991 - December 31, 1991



VI. JOINT FREQUENCY DISTRIBUTION WIND DIRECTION VS. WIND SPEED BY STABILITY CLASS AND METEOROLOGY DATA PER BATCH RELEASE

A. Meteorology data per batch tables will have -99 values signifying either invalid data or no data available.

B. Meteorological Data Recovery

Data recovery from the old SIA weather tower for the period July thru December 1991 was less than the previous six months due to a scheduled tower outage for system upgrades. The regulatory recovery guide was met with a cumulative recovery rate of 50.5% from the tower and the remaining 49.5% provided by the National Weather Service. The following table is a summary of the parameters and their respective recovery rates for the period:

| <u>Parameter</u> | <u>Actual Recovery Rate</u> | <u>Recovered Parameter Hrs/ Total Parameter Hrs</u> |
|------------------|-----------------------------|---|
| WD10             | 0.5378                      | 2375/4416   |
| WD45             | 0.0000                      | 0 /4416   |
| WD10             | 0.5385                      | 2378/4416   |
| WS110            | 0.5740                      | 2535/4416   |
| WS45             | 0.5926                      | 2617/4416   |
| WS10             | 0.5981                      | 2641/4416   |
| Delta-T 100M     | 0.5976                      | 2639/4416   |
| T10M             | 0.6017                      | 2657/4416   |

Total Possible Hours: 35,328

Actual Tower Recovery: 17,842

Recovery Rate: 0.5050

B. Meteorological Data Recovery (Continued)

Hourly meteorological data used to replace missing tower data for the months of July 1991 thru December 1991 originated from the North Omaha National Weather Service and NOAA Daily Synoptic Weather Maps. This raw data was used in formulating synthetic hourly data in accordance with monthly correction factors and a proceduralized Pasquill-Turner transformation which utilizes solar angle, time of day, cloud cover, and wind speed to determine the Pasquill Class.

The tabulations of the Weather Tower Data for July 1, 1991 thru December 31, 1991 look appropriate for the season as indicated. The Pasquill Classes observed for the six month period are detailed below. The first three months of the second half of 1991 (July-September) were:

| Pasquill |     |      |     |      |      |      |     |         |
|----------|-----|------|-----|------|------|------|-----|---------|
| Class    | A   | B    | C   | D    | E    | F    | G   | Total   |
| % Obs.   | 7.0 | 11.7 | 9.1 | 31.3 | 24.3 | 14.7 | 1.9 | = 100.0 |

and for October thru December were:

| Pasquill |     |     |     |      |      |      |     |         |
|----------|-----|-----|-----|------|------|------|-----|---------|
| Class    | A   | B   | C   | D    | E    | F    | G   | Total   |
| % Obs.   | 0.5 | 5.2 | 7.6 | 47.9 | 15.2 | 18.5 | 5.1 | = 100.0 |

The data, when corrected and/or supplemented by the synthetic data, derived from NWS NOAA data brought the recovery rate up above that required for maintaining adequate recovery as specified by the Nuclear Regulatory Commission. Recovery of synthetic and actual data requires a minimum recovery rate of 90 percent for the period.

On the basis of the data and its cross-checks, the weather data as amended is completely valid for use in tabulating reactor vent releases.

TABLE 158 - A

DATA PERIOD 07/01/1991 THROUGH 09/30/1991 RUN FROM TAPE SERIES TRI-EX

OMAHA PUBLIC POWER DISTRICT  
 FOR CALHOUN NUCLEAR STATION

JOINT FREQUENCY DISTRIBUTION WIND DIRECTION VS. WIND SPEED IN METERS/SEC FOR

DT100 = -2.0 TO -INF IN FREQUENCY DATA USED -- WD10 .WS10 .DT100

SECTOR IS WIND DIRECTION NOT AFFECTED DIRECTION

| SECTOR | 0.0 TO 0.4 | 0.5 TO 0.9 | 1.0 TO 1.4 | 1.5 TO 1.9 | 2.0 TO 2.4 | 2.5 TO 2.9 | 3.0 TO 3.4 | 3.5 TO 3.9 | 4.0 TO 4.4 | 4.5 TO 4.9 | 5.0 TO 5.9 | 6.0 TO 6.9 | 7.0 TO 7.9 | 8.0 TO 8.9 | 9.0 TO INF | TOTAL | USAR |
|--------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|-------|------|
| NNE    | 0.         | 2.         | 1.         | 4.         | 2.         | 0.         | 1.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 10.   | 2.1  |
| NE     | 0.         | 0.         | 0.         | 2.         | 1.         | 1.         | 1.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 4.    | 2.4  |
| ENE    | 0.         | 0.         | 0.         | 0.         | 1.         | 1.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 2.    | 2.3  |
| E      | 0.         | 0.         | 0.         | 0.         | 0.         | 2.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 2.    | 2.7  |
| ESE    | 0.         | 0.         | 0.         | 0.         | 0.         | 1.         | 2.         | 1.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 4.    | 3.2  |
| SE     | 0.         | 0.         | 0.         | 2.         | 1.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 3.         | 1.8   |      |
| SSE    | 0.         | 0.         | 1.         | 1.         | 1.         | 0.         | 2.         | 0.         | 0.         | 2.         | 3.         | 1.         | 0.         | 0.         | 11.        | 3.9   |      |
| S      | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 1.         | 1.         | 1.         | 0.         | 0.         | 0.         | 0.         | 0.         | 3.         | 3.7   |      |
| SSW    | 0.         | 0.         | 0.         | 0.         | 0.         | 1.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 1.         | 2.5   |      |
| SW     | 0.         | 0.         | 1.         | 0.         | 1.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 2.         | 1.7   |      |
| WSW    | 0.         | 0.         | 0.         | 1.         | 0.         | 1.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 2.         | 2.3   |      |
| W      | 0.         | 0.         | 2.         | 3.         | 4.         | 1.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 10.        | 1.8   |      |
| WNW    | 0.         | 0.         | 2.         | 2.         | 8.         | 3.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 15.        | 2.1   |      |
| NW     | 0.         | 0.         | 1.         | 5.         | 7.         | 9.         | 3.         | 3.         | 1.         | 0.         | 1.         | 0.         | 0.         | 0.         | 30.        | 2.5   |      |
| NNW    | 0.         | 0.         | 1.         | 9.         | 10.        | 6.         | 2.         | 0.         | 5.         | 9.         | 2.         | 2.         | 0.         | 0.         | 46.        | 3.1   |      |
| N      | 0.         | 0.         | 2.         | 3.         | 2.         | 0.         | 2.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 9.         | 2.0   |      |
| TOTAL  | 0.         | 12.        | 27.        | 41.        | 28.        | 13.        | 6.         | 7.         | 11.        | 6.         | 3.         | 3.         | 0.         | 0.         | 154.       | 2.7   |      |

NUMBER OF INVALID OBSERVATIONS= 0.

PERCENT OF VALID OBSERVATIONS= 7.0

TABLE 158 - B

DATA PERIOD 07/01/1991 THROUGH 09/30/1991 RUN FROM TAPE SERIES TRI-EX

YAMAHA PUBLIC POWER DISTRICT  
 EAST CALHOUN NUCLEAR STATION

JOINT FREQUENCY DISTRIBUTION WIND DIRECTION VS WIND SPEED IN METERS/SEC FOR

DT100 = -1.7 TO -1.9 IN FREQUENCY DATA USED -- WD10 , WS10 , DT100

SECTOR IS WIND DIRECTION NOT AFFECTED DIRECTION

| SECTOR | 0.0 |    | 0.5 |     | 1.0 |     | 1.5 |     | 2.0 |     | 2.5 |     | 3.0 |    | 3.5 |    | 4.0 |    | 4.5 |    | 5.0 |    | 6.0 |    | 7.0 |    | 8.0 |      | 9.0 |     | TOTAL | UBAR |
|--------|-----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|------|-----|-----|-------|------|
|        | TO  | TO | TO  | TO  | TO  | TO  | TO  | TO  | TO  | TO  | TO  | TO  | TO  | TO | TO  | TO | TO  | TO | TO  | TO | TO  | TO | TO  | TO | TO  | TO | TO  | TO   | TO  | TO  |       |      |
| MNE    | 0.  | 0. | 3.  | 4.  | 5.  | 2.  | 0.  | 0.  | 0.  | 0.  | 0.  | 0.  | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0.   | 1.  | 15. | 2.5   |      |
| NE     | 0.  | 0. | 1.  | 3.  | 3.  | 1.  | 0.  | 0.  | 0.  | 0.  | 0.  | 0.  | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0.   | 0.  | 8.  | 1.9   |      |
| ENE    | 0.  | 0. | 1.  | 2.  | 0.  | 0.  | 1.  | 0.  | 0.  | 0.  | 0.  | 0.  | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0.   | 0.  | 5.  | 3.4   |      |
| E      | 0.  | 0. | 0.  | 0.  | 3.  | 1.  | 1.  | 0.  | 0.  | 0.  | 0.  | 0.  | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0.   | 0.  | 5.  | 2.5   |      |
| ESE    | 0.  | 0. | 0.  | 2.  | 1.  | 2.  | 1.  | 1.  | 3.  | 3.  | 1.  | 1.  | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0.   | 0.  | 14. | 3.4   |      |
| SE     | 0.  | 0. | 0.  | 1.  | 1.  | 2.  | 2.  | 0.  | 4.  | 2.  | 2.  | 0.  | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0.   | 14. | 3.8 |       |      |
| SSE    | 0.  | 0. | 0.  | 0.  | 0.  | 0.  | 0.  | 0.  | 6.  | 6.  | 0.  | 0.  | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0.   | 47. | 5.2 |       |      |
| S      | 0.  | 1. | 1.  | 1.  | 1.  | 2.  | 4.  | 1.  | 1.  | 5.  | 7.  | 7.  | 9.  | 2. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0.   | 41. | 4.7 |       |      |
| SSW    | 0.  | 1. | 1.  | 0.  | 1.  | 0.  | 3.  | 1.  | 5.  | 0.  | 1.  | 0.  | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 13.  | 3.4 |     |       |      |
| SW     | 0.  | 0. | 1.  | 0.  | 1.  | 1.  | 0.  | 0.  | 0.  | 0.  | 0.  | 0.  | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 1.   | 4.  | 4.3 |       |      |
| WSW    | 0.  | 0. | 1.  | 0.  | 2.  | 0.  | 0.  | 1.  | 1.  | 0.  | 0.  | 0.  | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0.   | 5.  | 2.2 |       |      |
| W      | 0.  | 0. | 0.  | 0.  | 2.  | 0.  | 0.  | 0.  | 0.  | 0.  | 0.  | 0.  | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0.   | 4.  | 1.7 |       |      |
| WNW    | 0.  | 0. | 0.  | 2.  | 2.  | 0.  | 0.  | 0.  | 0.  | 0.  | 0.  | 0.  | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0.   | 6.  | 2.7 |       |      |
| NW     | 0.  | 0. | 2.  | 2.  | 1.  | 2.  | 1.  | 0.  | 0.  | 0.  | 0.  | 0.  | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0.   | 8.  | 2.1 |       |      |
| NNW    | 0.  | 0. | 0.  | 9.  | 4.  | 10. | 4.  | 5.  | 2.  | 0.  | 2.  | 1.  | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0.   | 42. | 2.6 |       |      |
| N      | 0.  | 0. | 4.  | 10. | 4.  | 5.  | 1.  | 2.  | 1.  | 0.  | 1.  | 0.  | 1.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0.   | 28. | 2.2 |       |      |
| TOTAL  | 0.  | 3. | 27. | 33. | 35. | 22. | 22. | 19. | 26. | 18. | 25. | 13. | 6.  | 6. | 6.  | 6. | 6.  | 6. | 6.  | 6. | 6.  | 6. | 6.  | 6. | 6.  | 6. | 6.  | 259. | 3.5 |     |       |      |

NUMBER OF INVALID OBSERVATIONS= 0.

PERCENT OF VALID OBSERVATIONS= 11.7

TABLE 15B - C

DATA PERIOD 07/01/1991 THROUGH 09/30/1991 RUN FROM TAPE SERIES TRI-EX

OMAHA PUBLIC POWER DISTRICT  
 FOR CALHOUN NUCLEAR STATION

JOINT FREQUENCY DISTRIBUTION WIND DIRECTION VS. WIND SPEED IN METERS/SEC FOR

DT100 = -1.5 TO -1.6 IN FREQUENCY DATA USED -- WD10 .WS10 .DT100

SECTOR IS WIND DIRECTION NOT AFFECTED DIRECTION

| SECTOR | 0.0 TO 0.4 | 0.5 TO 0.9 | 1.0 TO 1.4 | 1.5 TO 1.9 | 2.0 TO 2.4 | 2.5 TO 2.9 | 3.0 TO 3.4 | 3.5 TO 3.9 | 4.0 TO 4.4 | 4.5 TO 4.9 | 5.0 TO 5.9 | 6.0 TO 6.9 | 7.0 TO 7.9 | 8.0 TO 8.9 | 9.0 TO INF | TOTAL | UBAR |
|--------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|-------|------|
| NNE    | 0          | 0          | 2          | 1          | 0          | 1          | 1          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 5     | 2.0  |
| NE     | 0          | 1          | 0          | 1          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 2     | 1.3  |
| ENE    | 0          | 1          | 0          | 0          | 2          | 2          | 1          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 6     | 2.2  |
| E      | 0          | 0          | 0          | 1          | 2          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 3     | 2.1  |
| ESE    | 0          | 0          | 1          | 2          | 1          | 1          | 3          | 1          | 3          | 0          | 0          | 0          | 0          | 0          | 0          | 15    | 3.4  |
| SE     | 0          | 0          | 1          | 0          | 2          | 0          | 4          | 2          | 5          | 12         | 0          | 0          | 0          | 0          | 0          | 28    | 4.3  |
| SSE    | 0          | 0          | 1          | 0          | 0          | 1          | 2          | 6          | 3          | 12         | 0          | 0          | 0          | 0          | 0          | 35    | 4.7  |
| S      | 0          | 0          | 1          | 0          | 1          | 1          | 2          | 4          | 4          | 6          | 2          | 1          | 1          | 0          | 0          | 25    | 4.4  |
| SSW    | 0          | 0          | 0          | 1          | 0          | 2          | 2          | 0          | 2          | 1          | 1          | 0          | 0          | 0          | 0          | 9     | 3.5  |
| SW     | 0          | 1          | 2          | 2          | 2          | 2          | 2          | 1          | 2          | 2          | 0          | 0          | 0          | 0          | 0          | 14    | 2.7  |
| WSW    | 0          | 1          | 0          | 1          | 1          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 3     | 1.5  |
| W      | 0          | 1          | 2          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 3     | 1.0  |
| WNW    | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 1     | 1.1  |
| NW     | 0          | 1          | 0          | 4          | 0          | 1          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 6     | 1.6  |
| NNW    | 0          | 0          | 3          | 4          | 5          | 4          | 8          | 7          | 1          | 2          | 2          | 0          | 0          | 0          | 0          | 36    | 3.0  |
| N      | 0          | 0          | 3          | 2          | 3          | 0          | 1          | 0          | 1          | 0          | 0          | 0          | 0          | 0          | 0          | 10    | 2.1  |
| TOTAL  | 0          | 6          | 17         | 19         | 19         | 15         | 24         | 21         | 18         | 22         | 33         | 5          | 2          | 0          | 0          | 201   | 3.4  |

NUMBER OF INVALID OBSERVATIONS= 0

PERCENT OF VALID OBSERVATIONS= 9.1

TABLE 158 - D

DATA PERIOD 07/01/1991 THROUGH 09/30/1991 RUN FROM TAPE SERIES TRI-EX

OMAHA PUBLIC POWER DISTRICT  
FOR CALHOUN NUCLEAR STATION

JOINT FREQUENCY DISTRIBUTION WIND DIRECTION VS. WIND SPEED IN METERS/SEC FOR

DT100 = -0.5 TO -1.4 IN FREQUENCY DATA USED --- WD10 , WS10 , DT100

SECTOR IS WIND DIRECTION -DT AFFECTED DIRECTION

| SECTOR | 0.0 |      | 1.0 |      | 1.5 |      | 2.0 |      | 2.5 |      | 3.0 |      | 3.5 |      | 4.0 |      | 4.5 |      | 5.0 |      | 6.0 |      | 7.0 |      | 8.0 |      | 9.0 |      | TOTAL | UBAR |
|--------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-------|------|
|        | TO  | FROM | TO  | FROM | TO  | FROM | TO  | FROM | TO  | FROM | TO  | FROM | TO  | FROM | TO  | FROM | TO  | FROM | TO  | FROM | TO  | FROM | TO  | FROM | TO  | FROM | TO  | FROM |       |      |
| NNE    | 0.  | 1.   | 3.  | 0.   | 0.  | 2.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 6.    | 1.5  |
| NE     | 0.  | 2.   | 5.  | 0.   | 1.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 8.   | 1.2   |      |
| ENE    | 0.  | 2.   | 9.  | 11.  | 2.  | 2.   | 18. | 14.  | 3.  | 0.   | 1.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 1.  | 28.  | 2.0   |      |
| E      | 0.  | 1.   | 3.  | 16.  | 3.  | 16.  | 18. | 14.  | 3.  | 0.   | 1.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 2.  | 59.  | 2.5   |      |
| ESE    | 0.  | 0.   | 2.  | 6.   | 4.  | 8.   | 4.  | 8.   | 6.  | 4.   | 6.  | 1.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 39.  | 2.8   |      |
| SE     | 0.  | 1.   | 2.  | 8.   | 7.  | 5.   | 11. | 12.  | 12. | 16.  | 16. | 12.  | 12. | 12.  | 16. | 16.  | 16. | 16.  | 16. | 16.  | 16. | 16.  | 16. | 16.  | 16. | 16.  | 16. | 0.   | 93.   | 3.6  |
| SSE    | 0.  | 1.   | 0.  | 2.   | 3.  | 7.   | 3.  | 7.   | 9.  | 14.  | 23. | 24.  | 17. | 7.   | 5.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 112. | 4.3   |      |
| S      | 0.  | 0.   | 3.  | 3.   | 4.  | 4.   | 11. | 11.  | 11. | 13.  | 17. | 16.  | 16. | 16.  | 16. | 16.  | 16. | 16.  | 16. | 16.  | 16. | 16.  | 16. | 16.  | 16. | 16.  | 16. | 92.  | 4.2   |      |
| SSW    | 0.  | 1.   | 3.  | 1.   | 1.  | 3.   | 5.  | 3.   | 5.  | 3.   | 5.  | 4.   | 3.  | 6.   | 4.  | 3.   | 6.  | 4.   | 3.  | 6.   | 4.  | 3.   | 6.  | 4.   | 3.  | 6.   | 1.  | 35.  | 3.7   |      |
| SW     | 0.  | 1.   | 1.  | 3.   | 1.  | 3.   | 1.  | 3.   | 4.  | 1.   | 0.  | 1.   | 1.  | 1.   | 1.  | 1.   | 1.  | 1.   | 1.  | 1.   | 1.  | 1.   | 1.  | 1.   | 1.  | 1.   | 0.  | 17.  | 2.0   |      |
| WSW    | 0.  | 0.   | 0.  | 4.   | 4.  | 3.   | 0.  | 4.   | 1.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 12.  | 1.7   |      |
| W      | 0.  | 2.   | 5.  | 2.   | 1.  | 0.   | 1.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 10.  | 1.3   |      |
| WNW    | 0.  | 0.   | 4.  | 2.   | 2.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 8.   | 1.1   |      |
| NW     | 0.  | 4.   | 9.  | 6.   | 5.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 26.  | 1.8   |      |
| NNW    | 2.  | 8.   | 11. | 15.  | 31. | 21.  | 14. | 5.   | 4.  | 1.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 115. | 2.3   |      |
| N      | 0.  | 1.   | 6.  | 9.   | 9.  | 2.   | 3.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 30.  | 1.9   |      |
| TOTAL  | 2.  | 29.  | 68. | 88.  | 92. | 69.  | 69. | 52.  | 52. | 66.  | 74. | 66.  | 50. | 17.  | 9.  | 9.   | 9.  | 9.   | 9.  | 9.   | 9.  | 9.   | 9.  | 9.   | 9.  | 9.   | 9.  | 690. | 3.1   |      |

NUMBER OF INVALID OBSERVATIONS= 0.

PERCENT OF VALID OBSERVATIONS= 31.3

TABLE 15B - E

DATA PERIOD 07/01/1991 THROUGH 03/30/1991 RUN FROM TAPE SERIES TRI-EX

OMAHA PUBLIC POWER DISTRICT  
FOR CALHOUN NUCLEAR STATION

JOINT FREQUENCY DISTRIBUTION WIND DIRECTION VS. WIND SPEED IN METERS/SEC FOR

DT100 = -0.4 TO +1.5 IN FREQUENCY DATA USED --- WD10 .WS10 .DT100

SECTOR IS WIND DIRECTION NOT AFFECTED DIRECTION

| SECTOR | 0.0 |      | 0.5 |     | 1.0 |     | 1.5 |     | 2.0 |     | 2.5 |    | 3.0 |    | 3.5 |    | 4.0 |    | 4.5 |    | 5.0 |    | 6.0 |    | 7.0 |    | 8.0 |      | 9.0  |     | TOTAL | UBAR |
|--------|-----|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|------|------|-----|-------|------|
|        | TO  | TO   | TO  | TO  | TO  | TO  | TO  | TO  | TO  | TO  | TO  | TO | TO  | TO | TO  | TO | TO  | TO | TO  | TO | TO  | TO | TO  | TO | TO  | TO | TO  | TO   | TO   | TO  |       |      |
| NNE    | 0.  | 0.   | 0.  | 0.  | 0.  | 0.  | 0.  | 0.  | 0.  | 0.  | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0.   | 0.   | 0.  | 0.0   |      |
| NE     | 0.  | 3.   | 1.  | 1.  | 1.  | 0.  | 0.  | 0.  | 0.  | 0.  | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0.   | 0.   | 5.  | 1.0   |      |
| ENE    | 0.  | 2.   | 4.  | 0.  | 0.  | 0.  | 0.  | 0.  | 0.  | 0.  | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0.   | 6.   | 1.1 |       |      |
| E      | 0.  | 1.   | 7.  | 3.  | 0.  | 0.  | 0.  | 0.  | 0.  | 0.  | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0.   | 12.  | 1.4 |       |      |
| ESE    | 0.  | 2.   | 7.  | 5.  | 13. | 5.  | 4.  | 0.  | 0.  | 0.  | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0.   | 36.  | 2.0 |       |      |
| SE     | 0.  | 4.   | 6.  | 10. | 19. | 19. | 20. | 10. | 10. | 10. | 2.  | 1. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0.   | 101. | 2.7 |       |      |
| SSE    | 0.  | 1.   | 1.  | 1.  | 2.  | 8.  | 13. | 19. | 15. | 6.  | 2.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0.   | 69.  | 2.6 |       |      |
| S      | 0.  | 4.   | 0.  | 1.  | 1.  | 2.  | 10. | 10. | 10. | 9.  | 4.  | 6. | 1.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0.   | 48.  | 3.6 |       |      |
| SSW    | 0.  | 1.   | 2.  | 5.  | 2.  | 6.  | 3.  | 3.  | 2.  | 2.  | 4.  | 0. | 1.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0.   | 31.  | 3.1 |       |      |
| SW     | 1.  | 4.   | 1.  | 3.  | 1.  | 4.  | 1.  | 3.  | 1.  | 2.  | 1.  | 0. | 1.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0.   | 17.  | 2.8 |       |      |
| WSW    | 2.  | 11.  | 3.  | 1.  | 1.  | 1.  | 1.  | 1.  | 0.  | 1.  | 0.  | 1. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0.   | 22.  | 1.4 |       |      |
| W      | 1.  | 24.  | 11. | 4.  | 2.  | 2.  | 2.  | 0.  | 0.  | 0.  | 0.  | 1. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0.   | 45.  | 1.1 |       |      |
| WNW    | 0.  | 31.  | 19. | 7.  | 1.  | 1.  | 1.  | 0.  | 1.  | 1.  | 0.  | 1. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0.   | 61.  | 1.1 |       |      |
| NW     | 0.  | 20.  | 10. | 14. | 2.  | 0.  | 1.  | 0.  | 0.  | 0.  | 1.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0.   | 48.  | 1.2 |       |      |
| NNW    | 0.  | 4.   | 10. | 10. | 3.  | 3.  | 0.  | 0.  | 0.  | 0.  | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0.   | 30.  | 1.5 |       |      |
| N      | 0.  | 5.   | 0.  | 1.  | 1.  | 0.  | 0.  | 0.  | 0.  | 0.  | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0.   | 7.   | 1.0 |       |      |
| TOTAL  | 4.  | 117. | 82. | 66. | 48. | 47. | 54. | 46. | 39. | 15. | 14. | 2. | 2.  | 2. | 2.  | 2. | 2.  | 2. | 2.  | 2. | 2.  | 2. | 2.  | 2. | 2.  | 2. | 2.  | 538. | 2.2  |     |       |      |

NUMBER OF INVALID OBSERVATIONS= 0.

PERCENT OF VALID OBSERVATIONS= 24.3

TABLE 158 - F

DATA PERIOD 07/01/99 THROUGH 09/30/1991 RUN FROM TAPE SERIES TRI-EX

OMAHA PUBLIC POWER DISTRICT  
FORT CALHOUN NUCLEAR STATION

JOINT FREQUENCY DISTRIBUTION WIND DIRECTION VS. WIND SPEED IN METERS/SEC FOR

DT100 = +1.6 TO +4.0 IN FREQUENCY DATA USED --- WD10 , WS10 , DT100

SECTOR IS WIND DIRECTION NOT AFFECTED DIRECTION

| SECTOR | 0.0 |      | 0.5 |     | 1.0 |     | 1.5 |     | 2.0 |     | 2.5 |    | 3.0 |    | 3.5 |    | 4.0 |    | 4.5 |    | 5.0 |    | 6.0 |    | 7.0 |    | 8.0 |    | 9.0  |     | TOTAL | UBAR |
|--------|-----|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|------|-----|-------|------|
|        | TO  | TO   | TO  | TO  | TO  | TO  | TO  | TO  | TO  | TO  | TO  | TO | TO  | TO | TO  | TO | TO  | TO | TO  | TO | TO  | TO | TO  | TO | TO  | TO | TO  | TO | TO   | TO  |       |      |
| NNE    | 0.  | 0.   | 1.  | 0.  | 0.  | 0.  | 0.  | 0.  | 0.  | 0.  | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.   | 0.  | 1.    | 0.7  |
| NE     | 0.  | 0.   | 2.  | 0.  | 0.  | 0.  | 0.  | 0.  | 0.  | 0.  | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.   | 2.  | 0.6   |      |
| ENE    | 0.  | 0.   | 0.  | 0.  | 2.  | 0.  | 0.  | 0.  | 0.  | 0.  | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.   | 2.  | 1.0   |      |
| E      | 0.  | 0.   | 0.  | 0.  | 0.  | 0.  | 0.  | 0.  | 0.  | 0.  | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.   | 2.  | 1.2   |      |
| ESE    | 0.  | 0.   | 3.  | 4.  | 2.  | 4.  | 2.  | 10. | 2.  | 10. | 2.  | 1. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.   | 22. | 1.8   |      |
| SE     | 2.  | 2.   | 2.  | 3.  | 3.  | 3.  | 11. | 3.  | 11. | 3.  | 5.  | 2. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.   | 28. | 2.0   |      |
| SSE    | 0.  | 0.   | 6.  | 2.  | 2.  | 1.  | 0.  | 6.  | 1.  | 0.  | 6.  | 1. | 1.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.   | 17. | 1.8   |      |
| S      | 0.  | 0.   | 8.  | 3.  | 3.  | 2.  | 1.  | 1.  | 1.  | 6.  | 1.  | 6. | 3.  | 2. | 4.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.   | 36. | 2.8   |      |
| SSW    | 2.  | 2.   | 9.  | 2.  | 2.  | 2.  | 3.  | 1.  | 2.  | 1.  | 2.  | 1. | 1.  | 1. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.   | 23. | 1.5   |      |
| SW     | 2.  | 13.  | 0.  | 0.  | 1.  | 0.  | 1.  | 0.  | 1.  | 0.  | 1.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.   | 21. | 1.4   |      |
| WSW    | 5.  | 16.  | 1.  | 0.  | 1.  | 0.  | 1.  | 0.  | 1.  | 0.  | 1.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.   | 24. | 0.7   |      |
| W      | 1.  | 40.  | 7.  | 0.  | 1.  | 0.  | 1.  | 0.  | 1.  | 0.  | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.   | 49. | 0.7   |      |
| WNW    | 1.  | 38.  | 17. | 0.  | 1.  | 1.  | 1.  | 0.  | 1.  | 0.  | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.   | 58. | 0.9   |      |
| NW     | 0.  | 18.  | 4.  | 3.  | 2.  | 0.  | 0.  | 0.  | 0.  | 0.  | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.   | 28. | 1.2   |      |
| MNW    | 0.  | 6.   | 2.  | 0.  | 0.  | 0.  | 0.  | 0.  | 0.  | 0.  | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.   | 8.  | 0.8   |      |
| N      | 0.  | 4.   | 0.  | 0.  | 0.  | 0.  | 0.  | 0.  | 0.  | 0.  | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.   | 4.  | 0.7   |      |
| TOTAL  | 13. | 166. | 49. | 14. | 30. | 18. | 13. | 8.  | 4.  | 5.  | 4.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 325. | 1.4 |       |      |

NUMBER OF INVALID OBSERVATIONS= 0.

PERCENT OF VALID OBSERVATIONS= 14.7



TABLE 158 - G

DATA PERIOD 07/01/1991 THROUGH 09/30/1991 RUN FROM TAPE SERIES TRI-EX

OMAHA PUBLIC POWER DISTRICT  
FOF CALHOUN NUCLEAR STATION

JOINT FREQUENCY DISTRIBUTION WIND DIRECTION VS. WIND SPEED IN METERS/SEC FOR

DT100 = +4.1 TO +INF IN FREQUENCY DATA USED -- WD10 .WS10 .DT100

SECTOR IS WIND DIRECTION NOT AFFECTED DIRECTION

| SECTOR | 0.0 |     | 0.5  |     | 1.0 |     | 1.5 |     | 2.0 |     | 2.5 |     | 3.0 |     | 3.5 |     | 4.0 |     | 4.5 |     | 5.0 |     | 6.0 |     | 7.0 |     | 8.0 |     | 9.0 |     | TOTAL | UBAR |
|--------|-----|-----|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|------|
|        | TO  | TO  | TO   | TO  | TO  | TO  | TO  | TO  | TO  | TO  | TO  | TO  | TO  | TO  | TO  | TO  | TO  | TO  | TO  | TO  | TO  | TO  | TO  | TO  | TO  | TO  | TO  | TO  | TO  | TO  |       |      |
| MNE    | 0.0 | 0.0 | 1.0  | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0   | 0.5  |
| NE     | 0.0 | 0.0 | 3.0  | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.0   | 0.7  |
| ENE    | 0.0 | 0.0 | 2.0  | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.0   | 0.6  |
| E      | 0.0 | 0.0 | 0.0  | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   | 0.0  |
| ESE    | 0.0 | 0.0 | 1.0  | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0   | 0.7  |
| SE     | 0.0 | 0.0 | 7.0  | 4.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 11.0  | 0.8  |
| SSE    | 0.0 | 0.0 | 0.0  | 1.0 | 2.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.0   | 1.4  |
| S      | 0.0 | 0.0 | 1.0  | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0   | 0.4  |
| SSW    | 0.0 | 0.0 | 3.0  | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 4.0   | 0.7  |
| SW     | 0.0 | 0.0 | 1.0  | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.0   | 2.2  |
| WSW    | 0.0 | 0.0 | 3.0  | 0.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 5.0   | 1.4  |
| W      | 1.0 | 1.0 | 0.0  | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0   | 0.4  |
| WNW    | 0.0 | 0.0 | 1.0  | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.0   | 1.0  |
| NW     | 0.0 | 0.0 | 2.0  | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.0   | 0.6  |
| NNW    | 0.0 | 0.0 | 0.0  | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   | 0.0  |
| N      | 0.0 | 0.0 | 1.0  | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.0   | 1.1  |
| TOTAL  | 1.0 | 1.0 | 26.0 | 8.0 | 4.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 41.0  | 1.0  |

NUMBER OF INVALID OBSERVATIONS= 0.

PERCENT OF VALID OBSERVATIONS= 1.9

TABLE 158 - ALL

DATA PERIOD 07/01/1991 THROUGH 09/30/1991 RUN FROM TAPE SERIES TRI-EX

OMAHA PUBLIC POWER DISTRICT  
FORT CALHOUN NUCLEAR STATION

JOINT FREQUENCY DISTRIBUTION WIND DIRECTION VS. WIND SPEED IN METERS/SEC FOR

DT100 = -INF TO +INF IN FREQUENCY DATA USED -- WD10 .WS10 .DT100

SECTOR IS WIND DIRECTION NOT AFFECTED DIRECTION

| SECTOR | 0.0 TO 0.4 | 0.5 TO 0.9 | 1.0 TO 1.4 | 1.5 TO 1.9 | 2.0 TO 2.4 | 2.5 TO 2.9 | 3.0 TO 3.4 | 3.5 TO 3.9 | 4.0 TO 4.4 | 4.5 TO 4.9 | 5.0 TO 5.9 | 6.0 TO 6.9 | 7.0 TO 7.9 | 8.0 TO 8.9 | 9.0 TO INF | TOTAL | UBAR |
|--------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|-------|------|
| NNE    | 0          | 3          | 10         | 6          | 11         | 5          | 1          | 1          | 0          | 0          | 0          | 0          | 0          | 0          | 1          | 38    | 2.1  |
| NE     | 0          | 11         | 7          | 5          | 6          | 2          | 1          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 0          | 32    | 1.4  |
| ENE    | 0          | 7          | 16         | 13         | 5          | 5          | 2          | 1          | 0          | 0          | 0          | 0          | 0          | 1          | 1          | 51    | 1.9  |
| E      | 0          | 2          | 12         | 20         | 23         | 17         | 5          | 0          | 1          | 0          | 0          | 0          | 1          | 0          | 2          | 83    | 2.3  |
| ESE    | 0          | 6          | 14         | 17         | 29         | 19         | 19         | 9          | 12         | 5          | 1          | 0          | 0          | 0          | 0          | 131   | 2.5  |
| SE     | 2          | 14         | 16         | 24         | 41         | 31         | 39         | 24         | 38         | 25         | 24         | 0          | 0          | 0          | 0          | 278   | 3.1  |
| SSE    | 0          | 8          | 6          | 7          | 6          | 22         | 29         | 46         | 49         | 46         | 45         | 14         | 11         | 5          | 0          | 294   | 4.1  |
| S      | 0          | 14         | 8          | 7          | 8          | 10         | 34         | 33         | 35         | 33         | 39         | 18         | 6          | 0          | 1          | 246   | 4.0  |
| SSW    | 2          | 15         | 9          | 9          | 7          | 13         | 15         | 8          | 15         | 9          | 10         | 3          | 1          | 0          | 0          | 116   | 3.0  |
| SW     | 3          | 20         | 6          | 9          | 6          | 7          | 6          | 4          | 4          | 6          | 2          | 1          | 0          | 2          | 1          | 77    | 2.4  |
| WSW    | 7          | 32         | 8          | 10         | 6          | 3          | 4          | 1          | 1          | 0          | 0          | 1          | 0          | 0          | 0          | 73    | 1.3  |
| W      | 3          | 67         | 29         | 9          | 10         | 3          | 0          | 0          | 0          | 1          | 0          | 0          | 0          | 0          | 0          | 122   | 1.0  |
| WNW    | 1          | 74         | 44         | 14         | 12         | 5          | 0          | 1          | 1          | 0          | 0          | 0          | 0          | 0          | 0          | 152   | 1.1  |
| NW     | 0          | 45         | 26         | 34         | 17         | 12         | 5          | 5          | 1          | 0          | 1          | 0          | 0          | 1          | 1          | 148   | 1.7  |
| NNW    | 2          | 18         | 36         | 42         | 59         | 38         | 29         | 17         | 12         | 12         | 9          | 3          | 0          | 0          | 0          | 277   | 2.4  |
| N      | 0          | 11         | 16         | 25         | 19         | 7          | 7          | 2          | 2          | 0          | 1          | 0          | 0          | 0          | 0          | 90    | 1.9  |
| TOTAL  | 20         | 347        | 263        | 251        | 265        | 199        | 196        | 152        | 171        | 137        | 132        | 40         | 19         | 9          | 7          | 2208  | 2.6  |

NUMBER OF INVALID OBSERVATIONS= 0

PERCENT OF VALID OBSERVATIONS= 100.0

TABLE 159 - A

DATA PERIOD 07/01/1991 THROUGH 09/30/1991 POM TAPE SERIES TRI-EX

OMAHA PUBLIC POWER DISTRICT  
 FUR CALHOUN NUCLEAR STATION

JOINT FREQUENCY DISTRIBUTION WIND DIRECTION VS. WIND SPEED IN METERS/SEC FOR

DT100 = -2.0 TO -INF IN PERCENT DATA USED --- WD10 ,WS10 ,DT100

SECTOR 15 WIND DIRECTION NOT AFFECTED DIRECTION

| SECTOR | 0.0 TO 0.4 | 0.5 TO 0.9 | 1.0 TO 1.4 | 1.5 TO 1.9 | 2.0 TO 2.4 | 2.5 TO 2.9 | 3.0 TO 3.4 | 3.5 TO 3.9 | 4.0 TO 4.4 | 4.5 TO 4.9 | 5.0 TO 5.9 | 6.0 TO 6.9 | 7.0 TO 7.9 | 8.0 TO 8.9 | 9.0 TO INF | TOTAL | UBAR |
|--------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|-------|------|
| NNE    | 0.00       | 0.00       | 0.09       | 0.05       | 0.18       | 0.09       | 0.00       | 0.04       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.45  | 2.1  |
| NE     | 0.00       | 0.00       | 0.00       | 0.00       | 0.09       | 0.05       | 0.04       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.18  | 2.4  |
| ENE    | 0.00       | 0.00       | 0.00       | 0.00       | 0.05       | 0.04       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.09  | 2.3  |
| E      | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.09       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.09  | 2.7  |
| ESE    | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.05       | 0.09       | 0.04       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.18  | 3.2  |
| SE     | 0.00       | 0.00       | 0.00       | 0.09       | 0.05       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.14  | 1.8  |
| SSE    | 0.00       | 0.00       | 0.05       | 0.05       | 0.04       | 0.00       | 0.09       | 0.00       | 0.04       | 0.00       | 0.14       | 0.04       | 0.00       | 0.00       | 0.00       | 0.50  | 3.9  |
| S      | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.05       | 0.04       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.14  | 3.7  |
| SSW    | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.04       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.04  | 2.5  |
| SW     | 0.00       | 0.00       | 0.05       | 0.00       | 0.04       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.09  | 1.7  |
| WSW    | 0.00       | 0.00       | 0.00       | 0.05       | 0.00       | 0.04       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.09  | 2.3  |
| W      | 0.00       | 0.00       | 0.09       | 0.14       | 0.18       | 0.04       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.45  | 1.8  |
| WNW    | 0.00       | 0.00       | 0.09       | 0.09       | 0.36       | 0.14       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.68  | 2.1  |
| NW     | 0.00       | 0.00       | 0.04       | 0.23       | 0.32       | 0.41       | 0.14       | 0.04       | 0.04       | 0.00       | 0.04       | 0.00       | 0.00       | 0.00       | 0.00       | 1.36  | 2.5  |
| NNW    | 0.00       | 0.00       | 0.04       | 0.41       | 0.45       | 0.27       | 0.09       | 0.00       | 0.23       | 0.41       | 0.09       | 0.09       | 0.00       | 0.00       | 0.00       | 2.08  | 3.1  |
| N      | 0.00       | 0.00       | 0.09       | 0.14       | 0.09       | 0.00       | 0.09       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.41  | 2.0  |
| TOTAL  | 0.00       | 0.00       | 0.54       | 1.25       | 1.85       | 1.26       | 0.59       | 0.27       | 0.31       | 0.50       | 0.27       | 0.13       | 0.00       | 0.00       | 0.00       | 6.97  | 2.7  |

NUMBER OF INVALID OBSERVATIONS= 0.

PERCENT OF VALID OBSERVATIONS= 7.0

TABLE 159 - B

DATA PERIOD 07/01/1991 THROUGH 09/30/1991 RUN FROM TAPE SERIES TRI-EX

OMAHA PUBLIC POWER DISTRICT  
 FORT CALHOUN NUCLEAR STATION

JOINT FREQUENCY DISTRIBUTION WIND DIRECTION VS WIND SPEED IN METERS/SEC FOR

DT100 = -1.7 TO -1.9 IN PERCENT DATA USED -- WD10 .WS10 .DT100

SECTOR IS WIND DIRECTION NOT AFFECTED DIRECTION

| SECTOR | 0.0  |      | 0.5  |      | 1.0  |      | 1.5  |      | 2.0  |      | 2.5  |      | 3.0  |      | 3.5  |      | 4.0  |      | 4.5  |      | 5.0  |      | 5.5  |      | 6.0  |      | 7.0  |      | 8.0  |       | 9.0  |      | TOTAL | UBAR |
|--------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|------|------|-------|------|
|        | TO   | TO   | TO   | TO   | TO   | TO   | TO   | TO   | TO   | TO   | TO   | TO   | TO   | TO   | TO   | TO   | TO   | TO   | TO   | TO   | TO   | TO   | TO   | TO   | TO   | TO   | TO   | TO   | TO   | TO    | TO   | TO   |       |      |
| MNE    | 0.00 | 0.00 | 0.14 | 0.14 | 0.18 | 0.23 | 0.09 | 0.09 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.04 | 0.68 | 2.5   |      |
| NE     | 0.00 | 0.00 | 0.04 | 0.14 | 0.14 | 0.14 | 0.04 | 0.04 | 0.00 | 0.04 | 0.00 | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00 | 0.36 | 1.9   |      |
| ENE    | 0.00 | 0.00 | 0.05 | 0.09 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.05 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00 | 0.23 | 3.4   |      |
| E      | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.14 | 0.05 | 0.04 | 0.00 | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00 | 0.23 | 2.5   |      |
| ESE    | 0.00 | 0.00 | 0.00 | 0.09 | 0.05 | 0.09 | 0.09 | 0.04 | 0.04 | 0.09 | 0.04 | 0.09 | 0.04 | 0.14 | 0.14 | 0.04 | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00 | 0.63 | 3.4   |      |
| SE     | 0.00 | 0.00 | 0.00 | 0.00 | 0.05 | 0.04 | 0.09 | 0.04 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.18 | 0.18 | 0.09 | 0.09 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.63 | 3.8  |       |      |
| SSE    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.09 | 0.27 | 0.36 | 0.50 | 0.50 | 0.14 | 0.18 | 0.23 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 2.13 | 5.2  |       |      |
| S      | 0.00 | 0.05 | 0.05 | 0.04 | 0.04 | 0.04 | 0.09 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.14 | 0.04 | 0.23 | 0.32 | 0.41 | 0.32 | 0.41 | 0.09 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 1.86 | 4.7  |       |      |
| SSW    | 0.00 | 0.05 | 0.05 | 0.00 | 0.00 | 0.04 | 0.00 | 0.04 | 0.00 | 0.04 | 0.00 | 0.04 | 0.14 | 0.04 | 0.23 | 0.00 | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.59 | 3.4  |       |      |
| SW     | 0.00 | 0.00 | 0.05 | 0.00 | 0.00 | 0.05 | 0.04 | 0.00 | 0.05 | 0.04 | 0.00 | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.18  | 4.3  |      |       |      |
| WSW    | 0.00 | 0.05 | 0.00 | 0.00 | 0.09 | 0.03 | 0.00 | 0.00 | 0.03 | 0.00 | 0.05 | 0.00 | 0.00 | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.23  | 2.2  |      |       |      |
| W      | 0.00 | 0.00 | 0.09 | 0.00 | 0.00 | 0.09 | 0.00 | 0.00 | 0.09 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.18  | 1.7  |      |       |      |
| WNW    | 0.00 | 0.00 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.00 | 0.09 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.27  | 1.7  |      |       |      |
| NW     | 0.00 | 0.00 | 0.09 | 0.09 | 0.09 | 0.05 | 0.09 | 0.04 | 0.00 | 0.00 | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.36  | 2.1  |      |       |      |
| NNW    | 0.00 | 0.00 | 0.41 | 0.18 | 0.45 | 0.18 | 0.45 | 0.18 | 0.23 | 0.23 | 0.23 | 0.23 | 0.23 | 0.23 | 0.23 | 0.09 | 0.09 | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.90  | 2.6  |      |       |      |
| N      | 0.00 | 0.00 | 0.15 | 0.15 | 0.45 | 0.18 | 0.23 | 0.05 | 0.23 | 0.05 | 0.05 | 0.05 | 0.05 | 0.09 | 0.05 | 0.09 | 0.05 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.27  | 2.2  |      |       |      |
| TOTAL  | 0.00 | 0.15 | 1.24 | 1.49 | 1.59 | 1.59 | 0.99 | 1.00 | 0.85 | 1.28 | 0.81 | 1.12 | 0.59 | 0.27 | 0.27 | 0.81 | 1.12 | 0.59 | 0.27 | 0.27 | 0.27 | 0.27 | 0.27 | 0.27 | 0.27 | 0.27 | 0.27 | 0.27 | 0.08 | 11.73 | 3.5  |      |       |      |

NUMBER OF INVALID OBSERVATIONS= 0.

PERCENT OF VALID OBSERVATIONS= 11.7

TABLE 159 - C

DATA PERIOD 07/01/1991 THROUGH 09/30/1991 RUN FROM TAPE SERIES TRI-EX

OMAHA PUBLIC POWER DISTRICT  
 FORT CALHOUN NUCLEAR STATION

JOINT FREQUENCY DISTRIBUTION WIND DIRECTION VS. WIND SPEED IN METERS/SEC FOR

DT100 = -1.5 TO -1.6 IN PERCENT DATA USED -- WD10 .MS10 .DT100

SECTOR IS WIND DIRECTION NOT AFFECTED DIRECTION

| SECTOR | 0.0  |      | 0.5  |      | 1.0  |      | 1.5  |      | 2.0  |      | 2.5  |      | 3.0  |      | 3.5  |      | 4.0  |      | 4.5  |      | 5.0  |      | 6.0  |      | 7.0  |      | 8.0  |      | 9.0  |      | TOTAL | UBAR |
|--------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|------|
|        | TO   | FROM | TO   | FROM | TO   | FROM | TO   | FROM | TO   | FROM | TO   | FROM | TO   | FROM | TO   | FROM | TO   | FROM | TO   | FROM | TO   | FROM | TO   | FROM | TO   | FROM | TO   | FROM | TO   | FROM |       |      |
| NNE    | 0.00 | 0.00 | 0.00 | 0.00 | 0.05 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.05 | 0.00 | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.23  | 2.0  |
| NE     | 0.00 | 0.05 | 0.00 | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.09 | 1.3   |      |
| ENE    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.09 | 0.09 | 0.00 | 0.00 | 0.00 | 0.09 | 0.00 | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.27 | 2.2   |      |
| E      | 0.00 | 0.00 | 0.00 | 0.00 | 0.05 | 0.09 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.14 | 2.1  |       |      |
| ESE    | 0.00 | 0.00 | 0.00 | 0.05 | 0.09 | 0.04 | 0.04 | 0.00 | 0.00 | 0.00 | 0.04 | 0.04 | 0.14 | 0.04 | 0.14 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.68 | 3.4   |      |
| SE     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.09 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.18 | 0.09 | 0.09 | 0.23 | 0.54 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.27 | 4.3  |       |      |
| SSE    | 0.00 | 0.00 | 0.00 | 0.05 | 0.00 | 0.00 | 0.04 | 0.09 | 0.27 | 0.14 | 0.27 | 0.54 | 0.14 | 0.27 | 0.54 | 0.14 | 0.27 | 0.54 | 0.14 | 0.27 | 0.54 | 0.14 | 0.27 | 0.54 | 0.14 | 0.27 | 0.54 | 0.14 | 1.58 | 4.7  |       |      |
| S      | 0.00 | 0.00 | 0.00 | 0.05 | 0.00 | 0.05 | 0.04 | 0.09 | 0.18 | 0.18 | 0.14 | 0.14 | 0.09 | 0.18 | 0.14 | 0.14 | 0.27 | 0.09 | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.13 | 4.4   |      |
| SSW    | 0.00 | 0.00 | 0.00 | 0.00 | 0.05 | 0.00 | 0.00 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.00 | 0.09 | 0.05 | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.41 | 3.5  |       |      |
| SW     | 0.00 | 0.05 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.00 | 0.04 | 0.09 | 0.09 | 0.09 | 0.00 | 0.04 | 0.09 | 0.09 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.63 | 2.7  |       |      |
| WSW    | 0.00 | 0.00 | 0.05 | 0.00 | 0.05 | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.14 | 1.5  |       |      |
| W      | 0.00 | 0.05 | 0.09 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.14 | 1.0  |       |      |
| WNW    | 0.00 | 0.00 | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.04 | 1.1  |       |      |
| NW     | 0.00 | 0.05 | 0.00 | 0.18 | 0.00 | 0.00 | 0.04 | 0.00 | 0.00 | 0.00 | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.27 | 1.6  |       |      |
| NNW    | 0.00 | 0.00 | 0.14 | 0.18 | 0.23 | 0.18 | 0.36 | 0.32 | 0.04 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 1.63 | 3.0   |      |
| N      | 0.00 | 0.00 | 0.14 | 0.09 | 0.14 | 0.00 | 0.04 | 0.00 | 0.04 | 0.00 | 0.04 | 0.00 | 0.04 | 0.00 | 0.04 | 0.00 | 0.04 | 0.00 | 0.04 | 0.00 | 0.04 | 0.00 | 0.04 | 0.00 | 0.04 | 0.00 | 0.04 | 0.00 | 0.04 | 0.45 | 2.1   |      |
| TOTAL  | 0.00 | 0.30 | 0.79 | 0.87 | 0.86 | 0.66 | 1.07 | 0.94 | 0.81 | 1.01 | 1.48 | 0.23 | 0.08 | 0.23 | 0.08 | 0.23 | 0.08 | 0.23 | 0.08 | 0.23 | 0.08 | 0.23 | 0.08 | 0.23 | 0.08 | 0.23 | 0.08 | 0.23 | 9.10 | 3.4  |       |      |

NUMBER OF INVALID OBSERVATIONS= 0.

PERCENT OF VALID OBSERVATIONS= 9.1

TABLE 159 - D

DATA PERIOD 07/01/1991 THROUGH 09/30/1991 RUN FROM TAPE SERIES TRI-EX

OMAHA PUBLIC POWER DISTRICT  
EAST CALHOUN NUCLEAR STATION

JOINT FREQUENCY DISTRIBUTION WIND DIRECTION VS. WIND SPEED IN METERS/SEC FOR

DT100 = -0.5 TO -1.4 IN PERCENT DATA USED -- WD10 .WS10 .DT100

SECTOR IS WIND DIRECTION NOT AFFECTED DIRECTION

| SECTOR | 0.0 TO 0.4 | 0.5 TO 0.9 | 1.0 TO 1.4 | 1.5 TO 1.9 | 2.0 TO 2.4 | 2.5 TO 2.9 | 3.0 TO 3.4 | 3.5 TO 3.9 | 4.0 TO 4.4 | 4.5 TO 4.9 | 5.0 TO 5.9 | 6.0 TO 6.9 | 7.0 TO 7.9 | 8.0 TO 8.9 | TOTAL | UBAR |
|--------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|-------|------|
| NNE    | 0.00       | 0.04       | 0.14       | 0.00       | 0.09       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.27  | 1.5  |
| NE     | 0.00       | 0.09       | 0.23       | 0.00       | 0.04       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.36  | 1.2  |
| ENE    | 0.00       | 0.09       | 0.41       | 0.50       | 0.09       | 0.09       | 0.00       | 0.05       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 1.11  | 2.0  |
| E      | 0.00       | 0.05       | 0.14       | 0.72       | 0.81       | 0.63       | 0.14       | 0.00       | 0.05       | 0.00       | 0.00       | 0.00       | 0.04       | 0.00       | 2.67  | 2.5  |
| ESE    | 0.00       | 0.00       | 0.09       | 0.27       | 0.18       | 0.37       | 0.36       | 0.18       | 0.27       | 0.05       | 0.00       | 0.00       | 0.00       | 0.00       | 1.77  | 2.8  |
| SE     | 0.00       | 0.04       | 0.09       | 0.36       | 0.32       | 0.23       | 0.50       | 0.54       | 1.00       | 0.72       | 0.41       | 0.00       | 0.00       | 0.00       | 4.21  | 3.6  |
| SSE    | 0.00       | 0.04       | 0.00       | 0.09       | 0.13       | 0.32       | 0.41       | 0.63       | 1.04       | 1.09       | 0.77       | 0.22       | 0.23       | 0.00       | 5.07  | 4.3  |
| S      | 0.00       | 0.00       | 0.14       | 0.14       | 0.18       | 0.18       | 0.50       | 0.50       | 0.59       | 0.77       | 0.72       | 0.27       | 0.14       | 0.00       | 4.17  | 4.2  |
| SSW    | 0.00       | 0.04       | 0.14       | 0.04       | 0.04       | 0.14       | 0.23       | 0.14       | 0.23       | 0.27       | 0.18       | 0.14       | 0.00       | 0.00       | 1.59  | 3.7  |
| SW     | 0.00       | 0.05       | 0.05       | 0.14       | 0.05       | 0.14       | 0.18       | 0.04       | 0.04       | 0.04       | 0.04       | 0.04       | 0.00       | 0.00       | 0.77  | 2.9  |
| WSW    | 0.00       | 0.00       | 0.18       | 0.18       | 0.14       | 0.00       | 0.04       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.54  | 1.7  |
| W      | 0.00       | 0.09       | 0.23       | 0.09       | 0.04       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.45  | 1.3  |
| WNW    | 0.00       | 0.18       | 0.09       | 0.09       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.36  | 1.1  |
| NW     | 0.00       | 0.18       | 0.41       | 0.27       | 0.23       | 0.00       | 0.00       | 0.05       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 1.18  | 1.8  |
| NNW    | 0.09       | 0.36       | 0.50       | 0.68       | 1.40       | 0.95       | 0.63       | 0.23       | 0.18       | 0.05       | 0.14       | 0.00       | 0.00       | 0.00       | 5.21  | 2.3  |
| N      | 0.00       | 0.04       | 0.27       | 0.41       | 0.41       | 0.09       | 0.14       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 1.36  | 1.9  |
| TOTAL  | 0.09       | 1.29       | 3.11       | 3.98       | 4.15       | 3.14       | 3.13       | 2.36       | 3.36       | 2.99       | 2.26       | 0.77       | 0.41       | 0.00       | 31.25 | 3.1  |

NUMBER OF INVALID OBSERVATIONS= 0.

PERCENT OF VALID OBSERVATIONS= 31.3

TABLE 159 - E

DATA PERIOD 07/01/1991 THROUGH 09/30/1991 RUN FROM TAPE SERIES TRI-EX

OMAHA PUBLIC POWER DISTRICT  
FORT CALHOUN NUCLEAR STATION

JOINT FREQUENCY DISTRIBUTION WIND DIRECTION VS. WIND SPEED IN METERS/SEC FOR

DT100 = -0.4 TO +1.5 IN PERCENT DATA USED -- WD10 ,WS10 ,DT100

SECTOR 15 WIND DIRECTION NOT AFFECTED DIRECTION

| SECTOR | 0.0 TO 0.4 | 0.5 TO 0.9 | 1.0 TO 1.4 | 1.5 TO 1.9 | 2.0 TO 2.4 | 2.5 TO 2.9 | 3.0 TO 3.4 | 3.5 TO 3.9 | 4.0 TO 4.3 | 4.5 TO 4.9 | 5.0 TO 5.9 | 6.0 TO 6.9 | 7.0 TO 7.9 | 8.0 TO 8.9 | 9.0 TO INF | TOTAL | UBAH |
|--------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|-------|------|
| MNE    | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00  | 0.00 |
| NE     | 0.00       | 0.14       | 0.05       | 0.04       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.23  | 1.0  |
| ENE    | 0.00       | 0.09       | 0.18       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.27  | 1.1  |
| E      | 0.00       | 0.04       | 0.32       | 0.14       | 0.00       | 0.00       | 0.04       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.54  | 1.4  |
| ESE    | 0.00       | 0.09       | 0.32       | 0.23       | 0.59       | 0.22       | 0.18       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 1.63  | 2.0  |
| SE     | 0.00       | 0.18       | 0.27       | 0.45       | 0.86       | 0.86       | 0.91       | 0.45       | 0.45       | 0.09       | 0.05       | 0.00       | 0.00       | 0.00       | 0.00       | 4.57  | 2.7  |
| SSE    | 0.00       | 0.05       | 0.05       | 0.05       | 0.09       | 0.36       | 0.59       | 0.86       | 0.68       | 0.27       | 0.09       | 0.00       | 0.04       | 0.00       | 0.00       | 3.13  | 3.6  |
| S      | 0.00       | 0.18       | 0.00       | 0.05       | 0.05       | 0.09       | 0.45       | 0.45       | 0.41       | 0.18       | 0.27       | 0.04       | 0.00       | 0.00       | 0.00       | 2.17  | 3.6  |
| SSW    | 0.00       | 0.04       | 0.09       | 0.23       | 0.09       | 0.27       | 0.14       | 0.14       | 0.09       | 0.09       | 0.18       | 0.00       | 0.04       | 0.00       | 0.00       | 1.40  | 3.1  |
| SW     | 0.05       | 0.18       | 0.05       | 0.14       | 0.05       | 0.00       | 0.04       | 0.09       | 0.04       | 0.00       | 0.04       | 0.00       | 0.00       | 0.09       | 0.09       | 0.77  | 2.8  |
| WSW    | 0.09       | 0.50       | 0.14       | 0.05       | 0.05       | 0.05       | 0.04       | 0.00       | 0.04       | 0.00       | 0.00       | 0.04       | 0.00       | 0.00       | 0.00       | 1.00  | 1.4  |
| W      | 0.05       | 1.09       | 0.50       | 0.18       | 0.09       | 0.09       | 0.00       | 0.00       | 0.00       | 0.04       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 2.04  | 1.1  |
| WNW    | 0.00       | 1.40       | 0.86       | 0.32       | 0.05       | 0.05       | 0.00       | 0.04       | 0.04       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 2.76  | 1.1  |
| NW     | 0.00       | 0.91       | 0.45       | 0.63       | 0.09       | 0.00       | 0.05       | 0.04       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 2.17  | 1.2  |
| NNW    | 0.00       | 0.18       | 0.45       | 0.45       | 0.14       | 0.14       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 1.36  | 1.5  |
| N      | 0.00       | 0.23       | 0.00       | 0.05       | 0.04       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.32  | 1.0  |
| TOTAL  | 0.19       | 5.30       | 3.73       | 3.01       | 2.19       | 2.13       | 2.44       | 2.07       | 1.75       | 0.67       | 0.63       | 0.08       | 0.08       | 0.09       | 0.00       | 24.36 | 2.2  |

NUMBER OF INVALID OBSERVATIONS= 0.

PERCENT OF VALID OBSERVATIONS= 24.3

TABLE 159 - F

DATA PERIOD 07/01/1991 THROUGH 09/30/1991 RUN FROM TAPE SERIES TRI-EX

OMAHA PUBLIC POWER DISTRICT  
 FLET CALHOUN NUCLEAR STATION

JOINT FREQUENCY DISTRIBUTION WIND DIRECTION VS. WIND SPEED IN METERS/SEC FOR

DT100 = +1.6 TO +4.0 IN PERCENT DATA USED -- WD10 .WS10 .DT100

SECTOR IS WIND DIRECTION NOT AFFECTED DIRECTION

| SECTOR | 0.0 TO 0.4 | 0.5 TO 1.0 | 1.0 TO 1.5 | 1.5 TO 2.0 | 2.0 TO 2.5 | 2.5 TO 3.0 | 3.0 TO 3.5 | 3.5 TO 4.0 | 4.0 TO 4.5 | 4.5 TO 5.0 | 5.0 TO 5.9 | 5.9 TO 6.9 | 6.9 TO 7.9 | 7.9 TO 8.9 | 8.9 TO 9.0 | TOTAL | UBAR |
|--------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|-------|------|
| NNE    | 0.00       | 0.04       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.04  | 0.7  |
| NE     | 0.00       | 0.09       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.09  | 0.6  |
| ENE    | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00  | 0.00 |
| E      | 0.00       | 0.00       | 0.09       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.09  | 1.0  |
| ESE    | 0.00       | 0.14       | 0.18       | 0.09       | 0.45       | 0.09       | 0.05       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.09  | 1.2  |
| SE     | 0.00       | 0.09       | 0.14       | 0.13       | 0.23       | 0.09       | 0.09       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 1.00  | 1.8  |
| SSE    | 0.00       | 0.27       | 0.09       | 0.05       | 0.00       | 0.27       | 0.05       | 0.04       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 1.27  | 2.0  |
| S      | 0.00       | 0.36       | 0.14       | 0.09       | 0.05       | 0.04       | 0.27       | 0.27       | 0.14       | 0.09       | 0.18       | 0.00       | 0.00       | 0.00       | 0.00       | 0.77  | 1.8  |
| SSW    | 0.09       | 0.4        | 0.09       | 0.09       | 0.14       | 0.05       | 0.09       | 0.04       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 1.63  | 2.8  |
| SW     | 0.09       | 0.59       | 0.00       | 0.05       | 0.00       | 0.04       | 0.04       | 0.00       | 0.14       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 1.04  | 1.5  |
| WSW    | 0.23       | 0.72       | 0.05       | 0.00       | 0.05       | 0.04       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.95  | 1.4  |
| W      | 0.05       | 1.81       | 0.32       | 0.00       | 0.04       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 1.09  | 0.7  |
| WNW    | 0.05       | 1.72       | 0.77       | 0.00       | 0.05       | 0.04       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 2.22  | 0.7  |
| NW     | 0.00       | 0.81       | 0.18       | 0.14       | 0.09       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 2.63  | 0.9  |
| NW     | 0.00       | 0.21       | 0.09       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 1.27  | 1.2  |
| N      | 0.00       | 0.18       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.36  | 0.8  |
| TOTAL  | 0.60       | 7.50       | 2.23       | 0.64       | 1.37       | 0.80       | 0.59       | 0.35       | 0.18       | 0.23       | 0.18       | 0.00       | 0.00       | 0.00       | 0.00       | 14.72 | 1.4  |

NUMBER OF INVALID OBSERVATIONS= 0.

PERCENT OF VALID OBSERVATIONS= 14.7



TABLE 159 - G

DATA PERIOD 07/01/1991 THROUGH 09/30/1991 RUN FROM TAPE SERIES TRI-EX

OMAHA PUBLIC POWER DISTRICT  
FOR CALHOUN NUCLEAR STATION

JOINT FREQUENCY DISTRIBUTION WIND DIRECTION VS. WIND SPEED IN METERS/SEC FOR

DT100 = +4.1 TO +INF IN PERCENT DATA USED --- WD10 ,WS10 ,DT100

SECTOR IS WIND DIRECTION NOT AFFECTED DIRECTION

| SECTOR | 0.0 TO 0.4 | 0.5 TO 0.9 | 1.0 TO 1.4 | 1.5 TO 1.9 | 2.0 TO 2.4 | 2.5 TO 2.9 | 3.0 TO 3.4 | 3.5 TO 3.9 | 4.0 TO 4.4 | 4.5 TO 4.9 | 5.0 TO 5.9 | 6.0 TO 6.9 | 7.0 TO 7.9 | 8.0 TO 8.9 | 9.0 TO INF | TOTAL | UBAR |
|--------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|-------|------|
| NNE    | 0.00       | 0.05       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.05  | 0.6  |
| NE     | 0.00       | 0.14       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.14  | 0.7  |
| ENE    | 0.00       | 0.09       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.09  | 0.6  |
| E      | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00  | 0.0  |
| ESE    | 0.00       | 0.04       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.04  | 0.7  |
| SE     | 0.00       | 0.32       | 0.18       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.50  | 0.8  |
| SSE    | 0.00       | 0.00       | 0.05       | 0.09       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.14  | 1.4  |
| S      | 0.00       | 0.04       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.04  | 0.4  |
| SSW    | 0.00       | 0.14       | 0.04       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.18  | 0.7  |
| SW     | 0.00       | 0.05       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.04       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.09  | 2.2  |
| WSW    | 0.00       | 0.14       | 0.00       | 0.05       | 0.00       | 0.00       | 0.00       | 0.04       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.23  | 1.4  |
| W      | 0.04       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.04  | 0.4  |
| WNW    | 0.00       | 0.05       | 0.05       | 0.04       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.14  | 1.0  |
| NW     | 0.00       | 0.09       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.09  | 0.6  |
| NNW    | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00  | 0.0  |
| N      | 0.00       | 0.05       | 0.04       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.09  | 1.1  |
| TOTAL  | 0.04       | 1.20       | 0.36       | 0.18       | 0.00       | 0.00       | 0.04       | 0.00       | 0.04       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 1.86  | 1.0  |

NUMBER OF INVALID OBSERVATIONS= 0.

PERCENT OF VALID OBSERVATIONS= 1.9

TABLE 159 - ALL

DATA PERIOD 07/01/1991 THROUGH 09/30/1991 RUN FROM TAPE SERIES TRI-EX

OMAHA PUBLIC POWER DISTRICT  
FORT CALHOUN NUCLEAR STATION

JOINT FREQUENCY DISTRIBUTION WIND DIRECTION VS. WIND SPEED IN METERS/SEC FOR

| SECTOR | DT100 = -INF TO +INF IN PERCENT |       |       |       |       |      |      |      |      |      | DATA USED -- WD10 .WS10 .DT100 |      |      |      |      |        |      |      |      |      | TOTAL | #BAR |      |      |      |      |      |      |      |       |      |     |
|--------|---------------------------------|-------|-------|-------|-------|------|------|------|------|------|--------------------------------|------|------|------|------|--------|------|------|------|------|-------|------|------|------|------|------|------|------|------|-------|------|-----|
|        | 0.0                             | 0.5   | 1.0   | 1.5   | 2.0   | 2.5  | 3.0  | 3.5  | 4.0  | 4.5  | 5.0                            | 6.0  | 7.0  | 8.0  | 9.0  | 0.0    | 0.5  | 1.0  | 1.5  | 2.0  |       |      | 2.5  | 3.0  | 3.5  | 4.0  | 4.5  | 5.0  | 6.0  | 7.0   | 8.0  | 9.0 |
| NNE    | 0.00                            | 0.14  | 0.45  | 0.27  | 0.50  | 0.23 | 0.05 | 0.04 | 0.00 | 0.00 | 0.00                           | 0.00 | 0.00 | 0.00 | 0.04 | 0.00   | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.04  | 1.72 | 2.1 |
| NE     | 0.00                            | 0.50  | 0.32  | 0.23  | 0.27  | 0.09 | 0.04 | 0.00 | 0.00 | 0.00 | 0.00                           | 0.00 | 0.00 | 0.00 | 0.00 | 0.00   | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.45  | 1.4  |     |
| ENE    | 0.00                            | 0.32  | 0.72  | 0.59  | 0.23  | 0.23 | 0.09 | 0.05 | 0.00 | 0.00 | 0.00                           | 0.00 | 0.00 | 0.00 | 0.04 | 0.00   | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.31  | 1.9  |     |
| E      | 0.00                            | 0.09  | 0.54  | 0.91  | 1.04  | 0.77 | 0.23 | 0.00 | 0.05 | 0.00 | 0.00                           | 0.00 | 0.00 | 0.00 | 0.00 | 0.00   | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 3.76  | 2.3  |     |
| ESE    | 0.00                            | 0.27  | 0.63  | 0.77  | 1.31  | 0.86 | 0.86 | 0.41 | 0.54 | 0.23 | 0.05                           | 0.00 | 0.00 | 0.00 | 0.00 | 0.00   | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 5.93  | 2.5  |     |
| SE     | 0.09                            | 0.63  | 0.72  | 1.09  | 1.86  | 1.40 | 1.77 | 1.09 | 1.72 | 1.13 | 1.09                           | 0.00 | 0.00 | 0.00 | 0.00 | 0.00   | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 12.58 | 3.1  |     |
| SSE    | 0.00                            | 0.36  | 0.27  | 0.32  | 0.27  | 1.00 | 1.31 | 2.08 | 2.22 | 2.08 | 2.04                           | 0.63 | 0.50 | 0.23 | 0.00 | 0.00   | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 13.31 | 4.1  |     |
| S      | 0.00                            | 0.63  | 0.36  | 0.32  | 0.36  | 0.45 | 1.54 | 1.49 | 1.59 | 1.49 | 1.77                           | 0.82 | 0.27 | 0.00 | 0.05 | 0.00   | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 11.14 | 4.0  |     |
| SSW    | 0.09                            | 0.68  | 0.41  | 0.41  | 0.32  | 0.59 | 0.68 | 0.36 | 0.68 | 0.41 | 0.45                           | 0.13 | 0.04 | 0.00 | 0.00 | 0.00   | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 5.25  | 3.0  |     |
| SW     | 0.14                            | 0.91  | 0.27  | 0.41  | 0.27  | 0.32 | 0.27 | 0.18 | 0.18 | 0.27 | 0.09                           | 0.05 | 0.00 | 0.00 | 0.00 | 0.00   | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 3.49  | 2.4  |     |
| WSW    | 0.32                            | 1.45  | 0.36  | 0.45  | 0.27  | 0.14 | 0.18 | 0.05 | 0.05 | 0.00 | 0.00                           | 0.00 | 0.00 | 0.00 | 0.00 | 0.00   | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 3.31  | 1.3  |     |
| W      | 0.14                            | 3.03  | 1.31  | 0.41  | 0.45  | 0.14 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00                           | 0.00 | 0.00 | 0.00 | 0.00 | 0.00   | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 5.53  | 1.0  |     |
| WNW    | 0.05                            | 3.35  | 1.99  | 0.63  | 0.54  | 0.23 | 0.00 | 0.05 | 0.04 | 0.00 | 0.00                           | 0.00 | 0.00 | 0.00 | 0.00 | 0.00   | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 6.88  | 1.1  |     |
| NW     | 0.00                            | 2.04  | 1.18  | 1.54  | 0.77  | 0.54 | 0.23 | 0.23 | 0.05 | 0.00 | 0.04                           | 0.00 | 0.00 | 0.00 | 0.00 | 0.00   | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 6.70  | 1.7  |     |
| NNW    | 0.09                            | 0.82  | 1.63  | 1.90  | 2.67  | 1.72 | 1.31 | 0.77 | 0.55 | 0.54 | 0.41                           | 0.14 | 0.00 | 0.00 | 0.00 | 0.00   | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 12.55 | 2.4  |     |
| N      | 0.00                            | 0.50  | 0.72  | 1.13  | 0.86  | 0.32 | 0.09 | 0.09 | 0.09 | 0.00 | 0.05                           | 0.00 | 0.00 | 0.00 | 0.00 | 0.00   | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 4.08  | 1.9  |     |
| TOTAL  | 0.92                            | 15.72 | 11.88 | 11.38 | 11.99 | 9.03 | 8.88 | 6.89 | 7.76 | 6.20 | 5.99                           | 1.81 | 0.85 | 0.40 | 0.30 | 100.00 | 2.6  |      |      |      |       |      |      |      |      |      |      |      |      |       |      |     |

NUMBER OF INVALID OBSERVATIONS= 0.

PERCENT OF VALID OBSERVATIONS= 100.0

TABLE 158 - A

DATA PERIOD 10/01/1991 THROUGH 12/31/1991 RUN FROM TAPE SERIES TRI-EX

OMAHA PUBLIC POWER DISTRICT  
FORT CALHOUN NUCLEAR STATION

JOINT FREQUENCY DISTRIBUTION WIND DIRECTION VS. WIND SPEED IN METERS/SEC FOR

DT100 = -2.0 TO -1MF IN FREQUENCY DATA USED -- WD10 .WS10 .DT100

SECTOR IS WIND DIRECTION NOT AFFECTED DIRECTION

| SECTOR | 0.0 |    | 0.5 |    | 1.0 |    | 1.5 |    | 2.0 |    | 2.5 |    | 3.0 |    | 3.5 |    | 4.0 |    | 4.5 |    | 5.0 |    | 6.0 |    | 7.0 |    | 8.0 |    | 9.0 |    | TOTAL | UBAR |     |     |     |
|--------|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-------|------|-----|-----|-----|
|        | TO  | TO | TO  | TO | TO  | TO | TO  | TO | TO  | TO | TO  | TO | TO  | TO | TO  | TO | TO  | TO | TO  | TO | TO  | TO | TO  | TO | TO  | TO | TO  | TO | TO  | TO |       |      |     |     |     |
| NNE    | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.0   | 0.0  |     |     |     |
| NE     | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.0   | 0.0  |     |     |     |
| ENE    | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.    | 0.0  | 0.0 |     |     |
| E      | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.    | 0.   | 0.0 | 0.0 |     |
| ESE    | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.    | 0.   | 0.0 | 0.0 |     |
| SE     | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.    | 0.   | 0.0 | 0.0 |     |
| SSE    | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.    | 0.   | 0.0 | 0.0 |     |
| S      | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.    | 0.   | 0.0 | 0.0 |     |
| SSW    | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.    | 0.   | 0.0 | 0.0 |     |
| SW     | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.    | 0.   | 0.0 | 0.0 |     |
| WSW    | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.    | 0.   | 0.0 | 0.0 |     |
| W      | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.    | 0.   | 0.0 | 0.0 |     |
| WNW    | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.    | 0.   | 0.  | 0.0 | 0.0 |
| NW     | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.    | 0.   | 0.  | 0.0 | 0.0 |
| NNW    | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.    | 0.   | 0.  | 0.0 | 0.0 |
| N      | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 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.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.  | 0. | 0.    | 0.   | 0.  | 0.0 | 2.5 |

NUMBER OF INVALID OBSERVATIONS= 0.

PERCENT OF VALID OBSERVATIONS= 0.5

TABLE 158 - B

DATA PERIOD 10/01/1991 THROUGH 12/31/1991 RUN FROM TAPE SERIES TRI-EX  
 OMAHA PUBLIC POWER DISTRICT  
 FORT CALHOUN NUCLEAR STATION

JOINT FREQUENCY DISTRIBUTION WIND DIRECTION VS. WIND SPEED IN METERS/SEC FOR

DT100 = -1.7 TO -1.9 IN FREQUENCY DATA USED -- WD10 .WS10 .DT100

SECTOR IS WIND DIRECTION NOT AFFECTED DIRECTION

| SECTOR | 0.0 TO 0.4 |    | 0.5 TO 0.9 |     | 1.0 TO 1.4 |    | 1.5 TO 1.9 |     | 2.0 TO 2.4 |    | 2.5 TO 2.9 |    | 3.0 TO 3.4 |    | 3.5 TO 3.9 |    | 4.0 TO 4.4 |    | 4.5 TO 4.9 |    | 5.0 TO 5.9 |    | 6.0 TO 6.9 |    | 7.0 TO 7.9 |    | 8.0 TO 8.9 |    | 9.0 TO INF |     | TOTAL | UBAR |
|--------|------------|----|------------|-----|------------|----|------------|-----|------------|----|------------|----|------------|----|------------|----|------------|----|------------|----|------------|----|------------|----|------------|----|------------|----|------------|-----|-------|------|
|        | TO         | TO | TO         | TO  | TO         | TO | TO         | TO  | TO         | TO | TO         | TO | TO         | TO | TO         | TO | TO         | TO | TO         | TO | TO         | TO | TO         | TO | TO         | TO | TO         | TO | TO         |     |       |      |
| NNE    | 0.         | 0. | 0.         | 0.  | 0.         | 0. | 0.         | 0.  | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0.  | 2.    | 2.7  |
| NE     | 0.         | 0. | 0.         | 4.  | 1.         | 0. | 0.         | 0.  | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 5.  | 1.2   |      |
| ENE    | 0.         | 0. | 0.         | 3.  | 0.         | 0. | 0.         | 0.  | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 3.  | 1.1   |      |
| E      | 0.         | 0. | 0.         | 6.  | 0.         | 0. | 0.         | 0.  | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 6.  | 1.2   |      |
| ESE    | 0.         | 0. | 0.         | 0.  | 0.         | 0. | 0.         | 0.  | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0.  | 0.    | 0.0  |
| SE     | 0.         | 0. | 0.         | 0.  | 1.         | 0. | 0.         | 0.  | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 5.  | 2.7   |      |
| SSE    | 0.         | 0. | 0.         | 0.  | 0.         | 0. | 0.         | 0.  | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 3.  | 3.2   |      |
| S      | 0.         | 0. | 0.         | 1.  | 2.         | 4. | 3.         | 4.  | 1.         | 1. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 23. | 3.6   |      |
| SSW    | 0.         | 0. | 0.         | 1.  | 4.         | 1. | 0.         | 0.  | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 1.         | 15. | 4.0   |      |
| SW     | 0.         | 0. | 0.         | 3.  | 6.         | 0. | 0.         | 0.  | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 11. | 2.0   |      |
| WSW    | 0.         | 0. | 0.         | 0.  | 1.         | 0. | 0.         | 0.  | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 1.  | 1.7   |      |
| W      | 0.         | 0. | 0.         | 0.  | 2.         | 0. | 0.         | 0.  | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 3.  | 2.1   |      |
| WNW    | 0.         | 0. | 0.         | 0.  | 4.         | 1. | 1.         | 0.  | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 6.  | 1.5   |      |
| NW     | 0.         | 0. | 0.         | 2.  | 3.         | 2. | 0.         | 0.  | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 17. | 2.7   |      |
| NNW    | 0.         | 0. | 0.         | 0.  | 0.         | 0. | 0.         | 0.  | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 6.  | 3.1   |      |
| N      | 0.         | 0. | 0.         | 0.  | 0.         | 0. | 0.         | 0.  | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 8.  | 3.7   |      |
| TOTAL  | 0.         | 0. | 1.         | 26. | 19.        | 9. | 8.         | 18. | 16.        | 2. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 0.         | 0. | 114.       | 2.8 |       |      |

NUMBER OF INVALID OBSERVATIONS= 0.

PERCENT OF VALID OBSERVATIONS= 5.2

TABLE 158 - C

DATA PERIOD 10/01/1991 THROUGH 12/31/1991 RUN FROM TAPE SERIES TR1-EX

OMAHA PUBLIC POWER DISTRICT  
 FORT CALHOUN NUCLEAR STATION

JOINT FREQUENCY DISTRIBUTION WIND DIRECTION VS. WIND SPEED IN METERS/SEC FOR

DT100 = -1.5 TO -1.6 IN FREQUENCY DATA USED -- WD10 ,WS10 ,DT100

SECTOR IS WIND DIRECTION NOT AFFECTED DIRECTION

| SECTOR | 0.0 TO 0.4 |      | 0.5 TO 0.9 |      | 1.0 TO 1.4 |      | 1.5 TO 1.9 |      | 2.0 TO 2.4 |      | 2.5 TO 2.9 |      | 3.0 TO 3.4 |      | 3.5 TO 3.9 |      | 4.0 TO 4.4 |      | 4.5 TO 4.9 |      | 5.0 TO 5.9 |      | 6.0 TO 6.9 |      | 7.0 TO 7.9 |      | 8.0 TO 8.9 |      | TOTAL | UBAR |
|--------|------------|------|------------|------|------------|------|------------|------|------------|------|------------|------|------------|------|------------|------|------------|------|------------|------|------------|------|------------|------|------------|------|------------|------|-------|------|
|        | TO         | FROM | TO         | FROM | TO         | FROM | TO         | FROM | TO         | FROM | TO         | FROM | TO         | FROM | TO         | FROM | TO         | FROM | TO         | FROM | TO         | FROM | TO         | FROM | TO         | FROM | TO         | FROM |       |      |
| NNE    | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 1.         | 1.   | 1.         | 2.   | 2.         | 0.   | 0.         | 0.   | 0.         | 0.   | 3.         | 2.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 9.    | 3.5  |
| NE     | 0.         | 1.   | 0.         | 3.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 1.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 5.   | 1.8   |      |
| ENE    | 0.         | 1.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 1.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 2.   | 1.8   |      |
| E      | 0.         | 0.   | 0.         | 3.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 6.   | 1.4   |      |
| ESE    | 0.         | 1.   | 2.         | 4.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 7.   | 1.4   |      |
| SE     | 0.         | 1.   | 0.         | 0.   | 1.         | 0.   | 2.         | 0.   | 1.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 4.   | 1.6   |      |
| SSE    | 0.         | 0.   | 0.         | 0.   | 0.         | 3.   | 3.         | 3.   | 3.         | 3.   | 3.         | 3.   | 3.         | 4.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 16.  | 2.8   |      |
| S      | 0.         | 0.   | 0.         | 0.   | 0.         | 2.   | 4.         | 7.   | 4.         | 2.   | 1.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 20.  | 2.7   |      |
| SSW    | 0.         | 0.   | 0.         | 0.   | 0.         | 5.   | 3.         | 0.   | 3.         | 0.   | 3.         | 1.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 12.  | 2.4   |      |
| SW     | 0.         | 0.   | 0.         | 1.   | 6.         | 0.   | 0.         | 0.   | 0.         | 1.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 9.   | 2.1   |      |
| WSW    | 0.         | 0.   | 0.         | 1.   | 2.         | 0.   | 0.         | 0.   | 0.         | 0.   | 1.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 4.   | 2.0   |      |
| W      | 0.         | 0.   | 0.         | 1.   | 4.         | 1.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 6.   | 1.8   |      |
| WNW    | 0.         | 0.   | 0.         | 0.   | 4.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 2.         | 1.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 7.   | 2.6   |      |
| NW     | 0.         | 0.   | 0.         | 2.   | 3.         | 3.   | 11.        | 6.   | 3.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 31.  | 2.8   |      |
| NNW    | 0.         | 0.   | 0.         | 1.   | 3.         | 0.   | 3.         | 4.   | 1.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 12.  | 2.5   |      |
| N      | 0.         | 0.   | 0.         | 1.   | 0.         | 0.   | 2.         | 4.   | 6.         | 2.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 15.  | 3.4   |      |
| TOTAL  | 0.         | 4.   | 12.        | 45.  | 15.        | 31.  | 26.        | 20.  | 10.        | 2.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 165.       | 2.5  |       |      |

NUMBER OF INVALID OBSERVATIONS= 0.

PERCENT OF VALID OBSERVATIONS= 7.6

TABLE 158 - D

DATA PERIOD 10/01/1991 THROUGH 12/31/1991 RUN FROM TAPE SERIES TH1-EX

OMAHA PUBLIC POWER DISTRICT  
FORT CALHOUN NUCLEAR STATION

JOINT FREQUENCY DISTRIBUTION WIND DIRECTION VS. WIND SPEED IN METERS/SEC FOR

DT100 = -0.5 TO -1.4 IN FREQUENCY DATA USED --- WD10 .WS10 .DT100

SECTOR VS WIND DIRECTION NOT AFFECTED DIRECTION

| SECTOR | 0.0 TO 0.4 | 0.5 TO 1.4 | 1.5 TO 1.9 | 2.0 TO 2.4 | 2.5 TO 2.9 | 3.0 TO 3.4 | 3.5 TO 3.9 | 4.0 TO 4.4 | 4.5 TO 4.9 | 5.0 TO 5.9 | 6.0 TO 6.9 | 7.0 TO 7.9 | 8.0 TO 8.9 | 9.0 TO INF | TOTAL | UBAR |
|--------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|-------|------|
| NNE    | 0.         | 1.         | 4.         | 8.         | 10.        | 15.        | 21.        | 17.        | 4.         | 0.         | 0.         | 0.         | 0.         | 0.         | 60.   | 2.8  |
| NE     | 0.         | 4.         | 15.        | 12.        | 9.         | 3.         | 5.         | 2.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 50.   | 1.8  |
| ENE    | 0.         | 2.         | 8.         | 6.         | 6.         | 5.         | 0.         | 1.         | 1.         | 0.         | 0.         | 0.         | 0.         | 0.         | 29.   | 1.8  |
| E      | 0.         | 1.         | 5.         | 11.        | 14.        | 9.         | 4.         | 1.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 45.   | 2.1  |
| ESE    | 0.         | 2.         | 8.         | 9.         | 6.         | 13.        | 3.         | 7.         | 2.         | 0.         | 0.         | 0.         | 0.         | 0.         | 50.   | 2.3  |
| SE     | 0.         | 0.         | 20.        | 18.        | 6.         | 15.        | 9.         | 10.        | 4.         | 1.         | 0.         | 0.         | 0.         | 0.         | 83.   | 2.3  |
| SSE    | 0.         | 1.         | 4.         | 7.         | 20.        | 27.        | 17.        | 12.        | 4.         | 1.         | 0.         | 0.         | 0.         | 0.         | 94.   | 2.7  |
| S      | 0.         | 1.         | 10.        | 17.        | 23.        | 14.        | 10.        | 9.         | 4.         | 5.         | 8.         | 5.         | 4.         | 2.         | 112.  | 3.1  |
| SSW    | 0.         | 1.         | 2.         | 6.         | 12.        | 6.         | 4.         | 4.         | 2.         | 0.         | 2.         | 0.         | 0.         | 0.         | 41.   | 2.7  |
| SW     | 0.         | 0.         | 8.         | 9.         | 3.         | 4.         | 0.         | 1.         | 1.         | 0.         | 0.         | 0.         | 0.         | 0.         | 26.   | 1.9  |
| WSW    | 0.         | 0.         | 8.         | 5.         | 2.         | 1.         | 0.         | 1.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 17.   | 1.7  |
| W      | 0.         | 0.         | 8.         | 7.         | 4.         | 2.         | 1.         | 1.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 23.   | 1.8  |
| WNW    | 0.         | 1.         | 9.         | 1.         | 3.         | 5.         | 2.         | 3.         | 2.         | 0.         | 0.         | 0.         | 0.         | 0.         | 31.   | 2.5  |
| NW     | 0.         | 1.         | 8.         | 3.         | 7.         | 13.        | 18.        | 16.        | 8.         | 28.        | 27.        | 11.        | 0.         | 0.         | 140.  | 4.0  |
| NNW    | 0.         | 3.         | 6.         | 7.         | 8.         | 15.        | 17.        | 13.        | 18.        | 9.         | 7.         | 9.         | 4.         | 1.         | 117.  | 3.6  |
| N      | 0.         | 1.         | 8.         | 9.         | 9.         | 15.        | 23.        | 27.        | 8.         | 5.         | 2.         | 1.         | 0.         | 0.         | 108.  | 3.0  |
| TOTAL  | 0.         | 19.        | 131.       | 135.       | 142.       | 162.       | 137.       | 124.       | 59.        | 53.        | 45.        | 28.        | 8.         | 3.         | 1046. | 2.9  |

NUMBER OF INVALID OBSERVATIONS= 0.

PERCENT OF VALID OBSERVATIONS= 47.9

TABLE 15B - E

DATA PERIOD 10/01/1991 THROUGH 12/31/1991 RUN FROM TAPE SERIES TRI-EX  
 OMAHA PUBLIC POWER DISTRICT  
 FOR CALHOUN NUCLEAR STATION

JOINT FREQUENCY DISTRIBUTION WIND DIRECTION VS. WIND SPEED IN METERS/SEC FOR  
 DT100 = -0.4 TO +1.5 IN FREQUENCY DATA USED --- WD10 WS10 DT100

SECTOR IS WIND DIRECTION NOT AFFECTED DIRECTION

| SECTOR | 0.0 TO 0.4 | 0.5 TO 0.9 | 1.0 TO 1.4 | 1.5 TO 1.9 | 2.0 TO 2.4 | 2.5 TO 2.9 | 3.0 TO 3.4 | 3.5 TO 3.9 | 4.0 TO 4.4 | 4.5 TO 4.9 | 5.0 TO 5.9 | 6.0 TO 6.9 | 7.0 TO 7.9 | 8.0 TO 8.9 | 9.0 TO INF | TOTAL | UBAR |
|--------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|-------|------|
| NNE    | 0.         | 0.         | 5.         | 3.         | 3.         | 3.         | 0.         | 4.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 18.   | 2.2  |
| NE     | 0.         | 0.         | 3.         | 1.         | 0.         | 0.         | 1.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 5.    | 1.7  |
| ENE    | 0.         | 0.         | 1.         | 4.         | 0.         | 2.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 7.    | 1.8  |
| E      | 0.         | 0.         | 2.         | 3.         | 1.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 6.    | 1.6  |
| ESE    | 0.         | 0.         | 1.         | 3.         | 2.         | 1.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 7.    | 1.7  |
| SE     | 0.         | 0.         | 3.         | 1.         | 2.         | 1.         | 0.         | 2.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 9.    | 2.2  |
| SSE    | 0.         | 0.         | 1.         | 4.         | 6.         | 4.         | 6.         | 4.         | 1.         | 4.         | 1.         | 0.         | 0.         | 0.         | 0.         | 27.   | 3.1  |
| S      | 0.         | 0.         | 4.         | 4.         | 5.         | 9.         | 14.        | 7.         | 2.         | 4.         | 7.         | 2.         | 0.         | 0.         | 0.         | 58.   | 3.3  |
| SSW    | 1.         | 2.         | 3.         | 4.         | 3.         | 1.         | 5.         | 2.         | 0.         | 0.         | 0.         | 4.         | 0.         | 0.         | 0.         | 25.   | 2.7  |
| SW     | 0.         | 1.         | 5.         | 7.         | 4.         | 2.         | 0.         | 1.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 20.   | 1.7  |
| WSW    | 0.         | 1.         | 5.         | 1.         | 1.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 8.    | 1.3  |
| W      | 0.         | 2.         | 9.         | 5.         | 2.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 18.   | 1.3  |
| WNW    | 0.         | 1.         | 4.         | 5.         | 3.         | 1.         | 4.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 14.   | 1.7  |
| NW     | 1.         | 2.         | 12.        | 9.         | 3.         | 1.         | 7.         | 4.         | 4.         | 2.         | 0.         | 0.         | 0.         | 0.         | 0.         | 45.   | 2.3  |
| NNW    | 0.         | 2.         | 9.         | 4.         | 4.         | 2.         | 7.         | 3.         | 1.         | 3.         | 1.         | 0.         | 0.         | 0.         | 0.         | 36.   | 2.5  |
| N      | 0.         | 4.         | 3.         | 5.         | 3.         | 8.         | 6.         | 1.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 30.   | 2.2  |
| TOTAL  | 2.         | 15.        | 70.        | 60.        | 40.        | 37.        | 44.        | 30.        | 11.        | 10.        | 8.         | 6.         | 0.         | 0.         | 0.         | 333.  | 2.4  |

NUMBER OF INVALID OBSERVATIONS= 0.

PERCENT OF VALID OBSERVATIONS= 15.2

TABLE 156 - F

DATA PERIOD 10/01/1991 THROUGH 12/31/1991 RUN FROM TAPE SERIES TRI-5X

OMAHA PUBLIC POWER DISTRICT  
FORT CALHOUN NUCLEAR STATION

JOINT FREQUENCY DISTRIBUTION WIND DIRECTION VS. WIND SPEED IN METERS/SEC FOR

DT100 = +1.6 TO +4.0 IN FREQUENCY DATA USED -- WD10 ,WS10 ,DT100

SECTOR IS WIND DIRECTION NOT AFFECTED DIRECTION

| SECTOR | 0.0 TO 0.4 |      | 0.5 TO 0.9 |      | 1.0 TO 1.4 |      | 1.5 TO 1.9 |      | 2.0 TO 2.4 |      | 2.5 TO 2.9 |      | 3.0 TO 3.4 |      | 3.5 TO 3.9 |      | 4.0 TO 4.4 |      | 4.5 TO 4.9 |      | 5.0 TO 5.9 |      | 6.0 TO 6.9 |      | 7.0 TO 7.9 |      | 8.0 TO 8.9 |      | 9.0 TO INF |      | TOTAL | UBAR |
|--------|------------|------|------------|------|------------|------|------------|------|------------|------|------------|------|------------|------|------------|------|------------|------|------------|------|------------|------|------------|------|------------|------|------------|------|------------|------|-------|------|
|        | TO         | FROM | TO         | FROM | TO         | FROM | TO         | FROM | TO         | FROM | TO         | FROM | TO         | FROM | TO         | FROM | TO         | FROM | TO         | FROM | TO         | FROM | TO         | FROM | TO         | FROM | TO         | FROM | TO         | FROM |       |      |
| NNE    | 0.         | 0.   | 4.         | 4.   | 1.         | 3.   | 1.         | 3.   | 1.         | 3.   | 1.         | 3.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 13.   | 1.9  |
| NE     | 0.         | 0.   | 0.         | 5.   | 2.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 7.    | 1.8  |
| ENE    | 0.         | 1.   | 2.         | 3.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 6.   | 1.3   |      |
| E      | 0.         | 0.   | 3.         | 1.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 4.   | 1.0   |      |
| ESE    | 0.         | 0.   | 2.         | 3.   | 5.         | 1.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 11.  | 1.4   |      |
| SE     | 0.         | 2.   | 9.         | 14.  | 6.         | 10.  | 2.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 43.  | 1.9   |      |
| SSE    | 1.         | 1.   | 2.         | 9.   | 6.         | 8.   | 5.         | 1.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 33.  | 2.2   |      |
| S      | 0.         | 1.   | 3.         | 19.  | 17.        | 29.  | 1.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 72.  | 2.3   |      |
| SSW    | 0.         | 1.   | 3.         | 16.  | 6.         | 1.   | 1.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 31.  | 2.2   |      |
| SW     | 0.         | 3.   | 4.         | 6.   | 2.         | 5.   | 2.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 23.  | 1.9   |      |
| WSW    | 0.         | 8.   | 7.         | 0.   | 0.         | 1.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 16.  | 1.0   |      |
| W      | 0.         | 7.   | 6.         | 8.   | 5.         | 5.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 31.  | 1.6   |      |
| WNW    | 0.         | 1.   | 7.         | 7.   | 1.         | 3.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 19.  | 1.6   |      |
| NW     | 0.         | 3.   | 8.         | 13.  | 6.         | 4.   | 2.         | 1.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 38.  | 1.9   |      |
| MNW    | 0.         | 1.   | 7.         | 5.   | 2.         | 0.   | 1.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 17.  | 1.6   |      |
| N      | 0.         | 2.   | 5.         | 15.  | 6.         | 9.   | 1.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 38.  | 1.9   |      |
| TOTAL  | 1.         | 36.  | 71.        | 129. | 61.        | 78.  | 16.        | 16.  | 2.         | 2.   | 3.         | 3.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 0.         | 0.   | 402.       | 1.9  |       |      |

NUMBER OF INVALID OBSERVATIONS= 0.

PERCENT OF VALID OBSERVATIONS= 18.5



TABLE 158 - G

DATA PERIOD 10/01/1991 THROUGH 12/31/1991 RUN FROM TAPE SERIES TRI-EX

OMAHA PUBLIC POWER DISTRICT  
 FCF - CALHOUN NUCLEAR STATION

JOINT FREQUENCY DISTRIBUTION WIND DIRECTION VS. WIND SPEED IN METERS/SEC FOR

DT100 = +4.1 TO +INF IN FREQUENCY DATA USED -- WD10 ,WS10 ,DT100

SECTOR IS WIND DIRECTION NOT AFFECTED DIRECTION

| SECTOR | 0.0 TO 0.4 | 0.5 TO 0.9 | 1.0 TO 1.4 | 1.5 TO 1.9 | 2.0 TO 2.4 | 2.5 TO 2.9 | 3.0 TO 3.4 | 3.5 TO 3.9 | 4.0 TO 4.4 | 4.5 TO 4.9 | 5.0 TO 5.9 | 6.0 TO 6.9 | 7.0 TO 7.9 | 8.0 TO 8.9 | 9.0 TO INF | TOTAL | UBAR |
|--------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|-------|------|
| NNE    | 0.         | 1.         | 3.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 4.    | 1.1  |
| NE     | 0.         | 4.         | 1.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 5.    | 0.9  |
| ENE    | 0.         | 2.         | 3.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 5.    | 0.9  |
| E      | 0.         | 1.         | 2.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 3.    | 1.1  |
| ESE    | 0.         | 1.         | 4.         | 3.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 8.    | 1.3  |
| SE     | 0.         | 3.         | 6.         | 1.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 10.   | 1.1  |
| SSE    | 0.         | 1.         | 4.         | 1.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 6.    | 1.2  |
| S      | 0.         | 1.         | 2.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 3.    | 0.8  |
| SSW    | 1.         | 1.         | 3.         | 3.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 8.    | 1.1  |
| SW     | 1.         | 1.         | 9.         | 3.         | 1.         | 0.         | 0.         | 0.         | 1.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 16.   | 1.5  |
| WSW    | 0.         | 0.         | 9.         | 2.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 1.    | 1.2  |
| W      | 1.         | 2.         | 1.         | 1.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 5.    | 0.9  |
| WNW    | 0.         | 3.         | 1.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 4.    | 1.0  |
| NW     | 0.         | 3.         | 9.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 12.   | 1.1  |
| NNW    | 0.         | 0.         | 3.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 3.    | 1.3  |
| N      | 0.         | 1.         | 6.         | 2.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 0.         | 9.    | 1.3  |
| TOTAL  | 3.         | 25.        | 66.        | 16.        | 1.         | 0.         | 0.         | 0.         | 0.         | 1.         | 0.         | 0.         | 0.         | 0.         | 0.         | 112.  | 1.2  |

NUMBER OF INVALID OBSERVATIONS= 0.

PERCENT OF VALID OBSERVATIONS= 5.1

TABLE 15B - ALL

DATA PERIOD 10/01/1991 THROUGH 12/31/1991 RUN FROM TAPE SERIES TR1-EX

OMAHA PUBLIC POWER DISTRICT  
FORT CALHOUN NUCLEAR STATION

JOINT FREQUENCY DISTRIBUTION WIND DIRECTION VS. WIND SPEED IN METERS/SEC FOR

DT100 = -INF TO +INF IN FREQUENCY DATA USED -- WDID .WS10 .DT100

SECTOR IS WIND DIRECTION NOT AFFECTED DIRECTION

| SECTOR | 0.0 |      | 0.5  |      | 1.0  |      | 1.5  |      | 2.0 |      | 2.5 |      | 3.0 |      | 3.5 |      | 4.0 |      | 4.5 |      | 5.0 |      | 6.0 |      | 7.0 |      | 8.0 |      | 9.0   |      | TOTAL | UBAR |
|--------|-----|------|------|------|------|------|------|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-------|------|-------|------|
|        | TO  | FROM | TO   | FROM | TO   | FROM | TO   | FROM | TO  | FROM | TO  | FROM | TO  | FROM | TO  | FROM | TO  | FROM | TO  | FROM | TO  | FROM | TO  | FROM | TO  | FROM | TO  | FROM | TO    | FROM |       |      |
| NNE    | 0.  | 2.   | 16.  | 16.  | 15.  | 24.  | 23.  | 21.  | 7.  | 2.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.    | 126. | 2.6   |      |
| NE     | 0.  | 9.   | 23.  | 22.  | 11.  | 4.   | 6.   | 2.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 77.   | 1.7  |       |      |
| ENE    | 0.  | 6.   | 17.  | 14.  | 6.   | 8.   | 0.   | 1.   | 1.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 53.   | 1.6  |       |      |
| E      | 0.  | 5.   | 19.  | 17.  | 15.  | 9.   | 4.   | 1.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 70.   | 1.8  |       |      |
| ESE    | 0.  | 6.   | 18.  | 24.  | 9.   | 14.  | 3.   | 7.   | 2.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 83.   | 2.0  |       |      |
| SE     | 0.  | 6.   | 38.  | 37.  | 14.  | 29.  | 12.  | 13.  | 4.  | 1.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 154.  | 2.1  |       |      |
| SSE    | 1.  | 3.   | 11.  | 22.  | 33.  | 45.  | 30.  | 24.  | 8.  | 2.   | 1.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 180.  | 2.6  |       |      |
| S      | 0.  | 3.   | 20.  | 44.  | 53.  | 62.  | 33.  | 19.  | 9.  | 9.   | 18. | 12.  | 4.  | 2.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 288.  | 2.9  |       |      |
| SSW    | 2.  | 5.   | 12.  | 38.  | 25.  | 8.   | 15.  | 7.   | 2.  | 2.   | 4.  | 11.  | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 132.  | 2.6  |       |      |
| SW     | 1.  | 6.   | 30.  | 37.  | 0.   | 11.  | 3.   | 3.   | 1.  | 1.   | 1.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 105.  | 1.8  |       |      |
| WSW    | 0.  | 9.   | 20.  | 11.  | 3.   | 2.   | 1.   | 1.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 57.   | 1.4  |       |      |
| W      | 1.  | 11.  | 27.  | 25.  | 12.  | 7.   | 1.   | 2.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 86.   | 1.6  |       |      |
| WNW    | 0.  | 6.   | 25.  | 18.  | 9.   | 12.  | 5.   | 4.   | 2.  | 2.   | 4.  | 2.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 85.   | 2.0  |       |      |
| NW     | 1.  | 9.   | 41.  | 31.  | 22.  | 30.  | 42.  | 29.  | 16. | 30.  | 27. | 11.  | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 289.  | 3.1  |       |      |
| NNW    | 0.  | 6.   | 26.  | 19.  | 15.  | 21.  | 31.  | 19.  | 20. | 12.  | 8.  | 9.   | 4.  | 1.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 191.  | 3.1  |       |      |
| N      | 0.  | 8.   | 23.  | 31.  | 18.  | 34.  | 36.  | 39.  | 11. | 5.   | 2.  | 1.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 0.  | 0.   | 208.  | 2.7  |       |      |
| TOTAL  | 6.  | 100. | 376. | 406. | 270. | 320. | 245. | 192. | 85. | 66.  | 61. | 45.  | 8.  | 3.   | 1.  | 1.   | 3.  | 1.   | 1.  | 1.   | 1.  | 1.   | 1.  | 1.   | 1.  | 1.   | 1.  | 1.   | 2184. | 2.5  |       |      |

NUMBER OF INVALID OBSERVATIONS= 0.

PERCENT OF VALID OBSERVATIONS= 100.0

TABLE 159 - A

DATA PERIOD 10/01/1991 THROUGH 12/31/1991 RUN FROM TAPE SERIES TRI-EX

OMAHA PUBLIC POWER DISTRICT  
FORT CALHOUN NUCLEAR STATION

JOINT FREQUENCY DISTRIBUTION WIND DIRECTION VS. WIND SPEED IN METERS/SEC FOR

DT100 = -2.0 TO -INF IN PERCENT DATA USED -- WD10 .WS10 .DT100

SECTOR IS WIND DIRECTION NOT AFFECTED DIRECTION

| SECTOR | 0.0 TO 0.4 | 0.5 TO 0.9 | 1.0 TO 1.4 | 1.5 TO 1.9 | 2.0 TO 2.4 | 2.5 TO 2.9 | 3.0 TO 3.4 | 3.5 TO 3.9 | 4.0 TO 4.4 | 4.5 TO 4.9 | 5.0 TO 5.9 | 6.0 TO 6.9 | 7.0 TO 7.9 | 8.0 TO 8.9 | 9.0 TO INF | TOTAL | UBAR |
|--------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|-------|------|
| NNE    | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00  | 0.0  |
| NE     | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00  | 0.0  |
| ENE    | 0.00       | 0.00       | 0.00       | 0.05       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.05  | 1.5  |
| E      | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00  | 0.0  |
| ESE    | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00  | 0.0  |
| SE     | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00  | 0.0  |
| SSE    | 0.00       | 0.00       | 0.00       | 0.05       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.05  | 1.6  |
| S      | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00  | 0.0  |
| SSW    | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00  | 0.0  |
| SW     | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00  | 0.0  |
| WSW    | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00  | 0.0  |
| W      | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00  | 0.0  |
| WNW    | 0.00       | 0.00       | 0.00       | 0.00       | 0.04       | 0.14       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.18  | 2.4  |
| NW     | 0.00       | 0.00       | 0.00       | 0.00       | 0.05       | 0.04       | 0.18       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.27  | 2.8  |
| NNW    | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00  | 0.0  |
| N      | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00  | 0.0  |
| TOTAL  | 0.00       | 0.00       | 0.00       | 0.10       | 0.09       | 0.18       | 0.18       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.55  | 2.5  |

NUMBER OF INVALID OBSERVATIONS= 0.

PERCENT OF VALID OBSERVATIONS= 0.5

TABLE 159 - B

DATA PERIOD 10/01/1991 THROUGH 12/31/1991 RUN FROM TAPE SERIES TRI-EX

OMAHA PUBLIC POWER DISTRICT  
 FOR CALHOUN NUCLEAR STATION

JOINT FREQUENCY DISTRIBUTION WIND DIRECTION VS. WIND SPEED IN METERS/SEC FOR

DT100 = -1.7 TO -1.9 IN PERCENT DATA USED -- WD10 .WS10 .DT100

SECTOR IS WIND DIRECTION NOT AFFECTED DIRECTION

| SECTOR | 0.0  |      | 0.5  |      | 1.0  |      | 1.5  |      | 2.0  |      | 2.5  |      | 3.0  |      | 3.5  |      | 4.0  |      | 4.5  |      | 5.0  |      | 6.0  |      | 7.0  |      | 8.0  |      | 9.0  |      | TOTAL | USAP |
|--------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|------|
|        | TO   | FROM | TO   | FROM | TO   | FROM | TO   | FROM | TO   | FROM | TO   | FROM | TO   | FROM | TO   | FROM | TO   | FROM | TO   | FROM | TO   | FROM | TO   | FROM | TO   | FROM | TO   | FROM | TO   | FROM |       |      |
| NNE    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.05 | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.09  | 0.7  |
| NF     | 0.00 | 0.00 | 0.18 | 0.05 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.23  | 1.2  |
| EFE    | 0.00 | 0.00 | 0.14 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.14  | 1.1  |
| E      | 0.00 | 0.00 | 0.27 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.27  | 1.2  |
| ESE    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.0  |
| SE     | 0.00 | 0.00 | 0.00 | 0.00 | 0.05 | 0.00 | 0.09 | 0.05 | 0.05 | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.23  | 2.7  |
| SSE    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.05 | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.14  | 3.2  |
| S      | 0.00 | 0.00 | 0.05 | 0.09 | 0.18 | 0.14 | 0.18 | 0.05 | 0.18 | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.05  | 3.6  |
| SSW    | 0.00 | 0.00 | 0.05 | 0.18 | 0.05 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.69  | 4.0  |
| SW     | 0.00 | 0.05 | 0.14 | 0.27 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.50  | 2.0  |
| WSW    | 0.00 | 0.00 | 0.00 | 0.00 | 0.05 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.05  | 1.7  |
| W      | 0.00 | 0.00 | 0.09 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.14  | 2.1  |
| WNW    | 0.00 | 0.00 | 0.18 | 0.05 | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.27  | 1.5  |
| NW     | 0.00 | 0.00 | 0.09 | 0.14 | 0.09 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.78  | 2.7  |
| NHW    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.27  | 3.1  |
| N      | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.37  | 3.7  |
| TOTAL  | 0.00 | 0.05 | 1.19 | 0.88 | 0.41 | 0.37 | 0.82 | 0.73 | 0.09 | 0.09 | 0.32 | 0.31 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 5.22 | 2.6   |      |

NUMBER OF INVALID OBSERVATIONS= 0.

PERCENT OF VALID OBSERVATIONS= 5.2

TABLE 159 - C

DATA PERIOD 10/01/1991 THROUGH 12/31/1991 RUN FROM TAPE SERIES TRI-EX

OMAHA PUBLIC POWER DISTRICT  
 FORT CALHOUN NUCLEAR STATION

JOINT FREQUENCY DISTRIBUTION WIND DIRECTION VS. WIND SPEED IN METERS/SEC FOR

DT100 = -1.5 TO -1.6 IN PERCENT DATA USED --- WD10 WS10 JT100

SECTOR IS WIND DIRECTION NOT AFFECTED DIRECTION

| SECTOR | 0.0  |      | 0.5  |      | 1.0  |      | 1.5  |      | 2.0  |      | 2.5  |      | 3.0  |      | 3.5  |      | 4.0  |      | 4.5  |      | 5.0  |      | 6.0  |      | 7.0  |      | 8.0  |      | 9.0  |      | TOTAL | UBAR |
|--------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|------|
|        | TO   | TO   | TO   | TO   | TO   | TO   | TO   | TO   | TO   | TO   | TO   | TO   | TO   | TO   | TO   | TO   | TO   | TO   | TO   | TO   | TO   | TO   | TO   | TO   | TO   | TO   | TO   | TO   | TO   | TO   |       |      |
| MNE    | 0.00 | 0.00 | 0.00 | 0.00 | 0.05 | 0.04 | 0.09 | 0.09 | 0.09 | 0.04 | 0.14 | 0.14 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.41  | 3.5  |
| NE     | 0.00 | 0.05 | 0.00 | 0.14 | 0.00 | 0.00 | 0.04 | 0.04 | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.23  | 1.8  |
| ENE    | 0.00 | 0.05 | 0.00 | 0.00 | 0.00 | 0.00 | 0.04 | 0.04 | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.09  | 1.8  |
| E      | 0.00 | 0.00 | 0.14 | 0.00 | 0.14 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.28  | 1.4  |
| ESE    | 0.00 | 0.05 | 0.09 | 0.18 | 0.00 | 0.00 | 0.04 | 0.04 | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.32  | 1.4  |
| SE     | 0.00 | 0.05 | 0.00 | 0.09 | 0.00 | 0.00 | 0.04 | 0.04 | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.18  | 1.6  |
| SSE    | 0.00 | 0.00 | 0.00 | 0.14 | 0.14 | 0.14 | 0.14 | 0.14 | 0.14 | 0.14 | 0.14 | 0.14 | 0.14 | 0.14 | 0.14 | 0.14 | 0.14 | 0.14 | 0.14 | 0.14 | 0.14 | 0.14 | 0.14 | 0.14 | 0.14 | 0.14 | 0.14 | 0.14 | 0.14 | 0.14 | 0.73  | 2.8  |
| S      | 0.00 | 0.00 | 0.00 | 0.00 | 0.09 | 0.19 | 0.32 | 0.18 | 0.09 | 0.05 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.92  | 2.7  |
| SSW    | 0.00 | 0.00 | 0.00 | 0.23 | 0.14 | 0.00 | 0.00 | 0.14 | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.55  | 2.4  |
| SW     | 0.00 | 0.00 | 0.05 | 0.27 | 0.00 | 0.00 | 0.00 | 0.05 | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.41  | 2.1  |
| WSW    | 0.00 | 0.00 | 0.05 | 0.09 | 0.00 | 0.00 | 0.00 | 0.00 | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.18  | 2.0  |
| W      | 0.00 | 0.00 | 0.05 | 0.18 | 0.04 | 0.00 | 0.00 | 0.00 | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.27  | 1.8  |
| WNW    | 0.00 | 0.00 | 0.00 | 0.18 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.32  | 2.6  |
| NW     | 0.00 | 0.00 | 0.09 | 0.14 | 0.14 | 0.14 | 0.50 | 0.14 | 0.14 | 0.14 | 0.14 | 0.14 | 0.14 | 0.14 | 0.14 | 0.14 | 0.14 | 0.14 | 0.14 | 0.14 | 0.14 | 0.14 | 0.14 | 0.14 | 0.14 | 0.14 | 0.14 | 0.14 | 0.14 | 0.14 | 1.42  | 2.8  |
| NNW    | 0.00 | 0.00 | 0.05 | 0.14 | 0.00 | 0.00 | 0.14 | 0.18 | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.55  | 2.5  |
| N      | 0.00 | 0.00 | 0.05 | 0.00 | 0.00 | 0.00 | 0.09 | 0.18 | 0.28 | 0.08 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.69  | 3.4  |
| TOTAL  | 0.00 | 0.20 | 0.57 | 2.06 | 0.69 | 1.40 | 1.40 | 1.17 | 0.90 | 0.47 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 7.55  | 2.5  |

NUMBER OF INVALID OBSERVATIONS= 0.

PERCENT OF VALID OBSERVATIONS= 7.6

TABLE 159 - D

DATA PERIOD 10/01/1991 THROUGH 12/31/1991 RUN FROM TAPE SERIES TRI-EX

OMAHA PUBLIC POWER DISTRICT  
 FORT CALHOUN NUCLEAR STATION

JOINT FREQUENCY DISTRIBUTION WIND DIRECTION VS. WIND SPEED IN METERS/SEC FOR

| SECTOR | DT100 = -0.5 TO -1.4 IN PERCENT |      |      |      |      |      |      |      |      |      | DATA USED -- WD10 , WS10 , DT100 |      |      |      |      |      |      |       |       |      |
|--------|---------------------------------|------|------|------|------|------|------|------|------|------|----------------------------------|------|------|------|------|------|------|-------|-------|------|
|        | TO                              | 0.4  | 0.9  | 1.4  | 1.9  | 2.4  | 2.9  | 3.4  | 3.9  | 4.4  | 4.9                              | 5.0  | 5.9  | 6.9  | 7.9  | 8.0  | 8.9  | 9.0   | TOTAL | UBAR |
| NNE    | 0.00                            | 0.04 | 0.18 | 0.37 | 0.46 | 0.69 | 0.96 | 0.78 | 0.18 | 0.00 | 0.00                             | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 3.65  | 2.8  |
| NE     | 0.00                            | 0.18 | 0.69 | 0.55 | 0.41 | 0.14 | 0.23 | 0.09 | 0.00 | 0.00 | 0.00                             | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 2.29  | 1.8  |
| ENE    | 0.00                            | 0.09 | 0.37 | 0.27 | 0.27 | 0.23 | 0.00 | 0.05 | 0.05 | 0.00 | 0.00                             | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 1.33  | 1.8  |
| E      | 0.00                            | 0.05 | 0.23 | 0.50 | 0.64 | 0.41 | 0.18 | 0.05 | 0.00 | 0.00 | 0.00                             | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 2.06  | 2.1  |
| ESE    | 0.00                            | 0.09 | 0.37 | 0.41 | 0.27 | 0.60 | 0.14 | 0.32 | 0.09 | 0.00 | 0.00                             | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 2.29  | 2.3  |
| SE     | 0.00                            | 0.00 | 0.92 | 0.82 | 0.27 | 0.69 | 0.41 | 0.46 | 0.18 | 0.05 | 0.00                             | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 3.80  | 2.3  |
| SSE    | 0.00                            | 0.05 | 0.18 | 0.32 | 0.91 | 1.24 | 0.78 | 0.55 | 0.18 | 0.05 | 0.04                             | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 4.30  | 2.7  |
| S      | 0.00                            | 0.05 | 0.46 | 0.78 | 1.05 | 0.64 | 0.46 | 0.41 | 0.18 | 0.23 | 0.37                             | 0.23 | 0.18 | 0.09 | 0.00 | 0.00 | 0.00 | 0.00  | 5.13  | 3.1  |
| SSW    | 0.00                            | 0.05 | 0.09 | 0.28 | 0.55 | 0.28 | 0.18 | 0.18 | 0.09 | 0.09 | 0.00                             | 0.09 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 1.88  | 2.7  |
| SW     | 0.00                            | 0.00 | 0.37 | 0.41 | 0.17 | 0.18 | 0.00 | 0.05 | 0.04 | 0.00 | 0.00                             | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 1.19  | 1.9  |
| WSW    | 0.00                            | 0.00 | 0.37 | 0.23 | 0.09 | 0.05 | 0.00 | 0.04 | 0.00 | 0.00 | 0.00                             | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.78  | 1.7  |
| W      | 0.00                            | 0.00 | 0.37 | 0.32 | 0.18 | 0.09 | 0.05 | 0.04 | 0.00 | 0.00 | 0.00                             | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 1.05  | 1.8  |
| WNW    | 0.00                            | 0.05 | 0.41 | 0.04 | 0.14 | 0.23 | 0.23 | 0.09 | 0.14 | 0.09 | 0.00                             | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 1.42  | 2.5  |
| NW     | 0.00                            | 0.05 | 0.37 | 0.14 | 0.32 | 0.59 | 0.82 | 0.73 | 0.37 | 1.28 | 1.24                             | 0.50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 6.41  | 4.0  |
| NNW    | 0.00                            | 0.14 | 0.27 | 0.32 | 0.37 | 0.69 | 0.78 | 0.60 | 0.82 | 0.41 | 0.32                             | 0.41 | 0.18 | 0.05 | 0.00 | 0.00 | 0.00 | 0.00  | 5.36  | 3.6  |
| N      | 0.00                            | 0.04 | 0.37 | 0.41 | 0.41 | 0.69 | 1.05 | 1.24 | 0.37 | 0.23 | 0.09                             | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 4.94  | 3.0  |
| TOTAL  | 0.00                            | 0.88 | 6.02 | 6.17 | 6.48 | 7.44 | 6.27 | 5.68 | 2.69 | 2.43 | 2.06                             | 1.27 | 0.36 | 0.14 | 0.00 | 0.00 | 0.00 | 47.89 | 27.9  | 2.9  |

NUMBER OF INVALID OBSERVATIONS= 0.  
 PERCENT OF VALID OBSERVATIONS= 47.9

TABLE 159 - E

DATA PERIOD 10/01/1991 THROUGH 12/31/1991 RUN FROM TAPE SERIES TRI-EX

OMAHA PUBLIC POWER DISTRICT  
FORT CALHOUN NUCLEAR STATION

JOINT FREQUENCY DISTRIBUTION WIND DIRECTION VS. WIND SPEED IN METERS/SEC FOR

DT100 = -0.4 TO +1.5 IN PERCENT DATA USED -- WD10 , WS10 , DT100

SECTOR IS WIND DIRECTION NOT AFFECTED DIRECTION

| SECTOR | 0.0 TO 0.4 | 0.5 TO 0.9 | 1.0 TO 1.4 | 1.5 TO 1.9 | 2.0 TO 2.4 | 2.5 TO 2.9 | 3.0 TO 3.4 | 3.5 TO 3.9 | 4.0 TO 4.4 | 4.5 TO 4.9 | 5.0 TO 5.9 | 6.0 TO 6.9 | 7.0 TO 7.9 | 8.0 TO 8.9 | 9.0 TO INF | TOTAL | UBAR |
|--------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|-------|------|
| NNE    | 0.00       | 0.00       | 0.23       | 0.14       | 0.14       | 0.13       | 0.00       | 0.18       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.82  | 2.2  |
| NE     | 0.00       | 0.00       | 0.14       | 0.05       | 0.00       | 0.00       | 0.04       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.23  | 1.7  |
| ENE    | 0.00       | 0.00       | 0.05       | 0.18       | 0.00       | 0.09       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.32  | 1.8  |
| E      | 0.00       | 0.00       | 0.09       | 0.14       | 0.05       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.28  | 1.6  |
| ESE    | 0.00       | 0.00       | 0.05       | 0.14       | 0.09       | 0.04       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.32  | 1.7  |
| SE     | 0.00       | 0.00       | 0.14       | 0.05       | 0.09       | 0.04       | 0.00       | 0.09       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.41  | 2.2  |
| SSE    | 0.00       | 0.00       | 0.05       | 0.05       | 0.18       | 0.26       | 0.18       | 0.27       | 0.18       | 0.05       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 1.24  | 3.1  |
| S      | 0.00       | 0.00       | 0.19       | 0.19       | 0.23       | 0.41       | 0.64       | 0.32       | 0.09       | 0.18       | 0.32       | 0.09       | 0.00       | 0.00       | 0.00       | 2.66  | 3.3  |
| SSW    | 0.05       | 0.09       | 0.14       | 0.18       | 0.14       | 0.04       | 0.23       | 0.09       | 0.00       | 0.00       | 0.00       | 0.18       | 0.00       | 0.00       | 0.00       | 1.14  | 2.7  |
| SW     | 0.00       | 0.05       | 0.23       | 0.32       | 0.18       | 0.09       | 0.00       | 0.05       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.92  | 1.7  |
| WSW    | 0.00       | 0.05       | 0.23       | 0.05       | 0.04       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.37  | 1.3  |
| W      | 0.00       | 0.09       | 0.41       | 0.23       | 0.09       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.82  | 1.3  |
| WNW    | 0.00       | 0.05       | 0.18       | 0.23       | 0.14       | 0.04       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.64  | 1.7  |
| NW     | 0.05       | 0.09       | 0.55       | 0.41       | 0.14       | 0.05       | 0.32       | 0.18       | 0.18       | 0.09       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 2.06  | 2.3  |
| NNW    | 0.00       | 0.09       | 0.41       | 0.18       | 0.18       | 0.09       | 0.32       | 0.14       | 0.05       | 0.14       | 0.05       | 0.00       | 0.00       | 0.00       | 0.00       | 1.65  | 2.5  |
| N      | 0.00       | 0.18       | 0.14       | 0.23       | 0.14       | 0.37       | 0.27       | 0.04       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 1.37  | 2.2  |
| TOTAL  | 0.10       | 0.69       | 3.23       | 2.77       | 1.83       | 1.67       | 2.00       | 1.36       | 0.50       | 0.46       | 0.37       | 0.27       | 0.00       | 0.00       | 0.00       | 15.25 | 2.4  |

NUMBER OF INVALID OBSERVATIONS= 0.

PERCENT OF VALID OBSERVATIONS= 15.2

TABLE 159 - F

DATA PERIOD 10/01/1991 THROUGH 12/31/1991 RUN FROM TAPE SERIES TRI-EX

OMAHA PUBLIC POWER DISTRICT  
FORT CALHOUN NUCLEAR STATION

JOINT FREQUENCY DISTRIBUTION WIND DIRECTION VS WIND SPEED IN METERS/SEC FOR

DT100 = +1.6 TO +4.0 IN PERCENT DATA USED -- WD10 .WS10 .DT100

SECTOR IS WIND DIRECTION NOT AFFECTED DIRECTION

| SECTOR | 0.0  |      | 0.5  |      | 1.0  |      | 1.5  |      | 2.0  |      | 2.5  |      | 3.0  |      | 3.5  |      | 4.0  |      | 4.5  |      | 5.0  |      | 5.5  |      | 6.0  |      | 7.0  |      | 8.0  |      | 9.0  |      | TOTAL | UBAR |      |     |
|--------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|------|------|-----|
|        | TO   | FROM | TO   | FROM | TO   | FROM | TO   | FROM | TO   | FROM | TO   | FROM | TO   | FROM | TO   | FROM | TO   | FROM | TO   | FROM | TO   | FROM | TO   | FROM | TO   | FROM | TO   | FROM | TO   | FROM | TO   | FROM |       |      |      |     |
| NNE    | 0.00 | 0.00 | 0.18 | 0.18 | 0.05 | 0.14 | 0.05 | 0.14 | 0.05 | 0.14 | 0.05 | 0.14 | 0.05 | 0.14 | 0.05 | 0.14 | 0.05 | 0.14 | 0.05 | 0.14 | 0.05 | 0.14 | 0.05 | 0.14 | 0.05 | 0.14 | 0.05 | 0.14 | 0.05 | 0.14 | 0.05 | 0.14 | 0.05  | 0.14 | 0.60 | 1.9 |
| NE     | 0.00 | 0.00 | 0.23 | 0.23 | 0.09 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00 | 0.32 | 1.8 |
| ENE    | 0.00 | 0.05 | 0.09 | 0.14 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00 | 0.28 | 1.3 |
| E      | 0.00 | 0.14 | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00 | 0.18 | 1.0 |
| ESE    | 0.00 | 0.09 | 0.14 | 0.23 | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.50 | 1.4  |     |
| SE     | 0.00 | 0.09 | 0.41 | 0.64 | 0.28 | 0.46 | 0.09 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 1.97 | 1.9  |     |
| SSE    | 0.05 | 0.05 | 0.09 | 0.41 | 0.27 | 0.37 | 0.23 | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 1.51 | 2.2  |     |
| S      | 0.00 | 0.05 | 0.14 | 0.87 | 0.78 | 1.33 | 0.05 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 3.30 | 2.3  |     |
| SSW    | 0.00 | 0.05 | 0.14 | 0.73 | 0.27 | 0.05 | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 1.42 | 2.2  |     |
| SW     | 0.00 | 0.14 | 0.16 | 0.27 | 0.09 | 0.23 | 0.09 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 1.05 | 1.9  |     |
| WSW    | 0.00 | 0.37 | 0.32 | 0.00 | 0.00 | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.73 | 1.0  |     |
| W      | 0.00 | 0.32 | 0.27 | 0.37 | 0.23 | 0.23 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00 | 1.42 | 1.6 |
| WNW    | 0.00 | 0.05 | 0.32 | 0.32 | 0.04 | 0.14 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.87 | 1.6  |     |
| NW     | 0.00 | 0.14 | 0.37 | 0.59 | 0.27 | 0.18 | 0.09 | 0.05 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 1.74 | 1.9  |     |
| NNW    | 0.00 | 0.05 | 0.32 | 0.23 | 0.09 | 0.00 | 0.05 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.76 | 1.6  |     |
| N      | 0.00 | 0.09 | 0.23 | 0.69 | 0.27 | 0.41 | 0.05 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 1.74 | 1.9  |     |
| TOTAL  | 0.05 | 1.68 | 3.24 | 5.90 | 2.77 | 3.58 | 0.74 | 0.09 | 0.13 | 0.00 | 0.05 | 0.18 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 18.41 | 1.9  |      |     |

NUMBER OF INVALID OBSERVATIONS= 0.

PERCENT OF VALID OBSERVATIONS= 18.5



TABLE 159 - G

DATA PERIOD 10/01/1991 THROUGH 12/31/1991 RUN FROM TAPE SERIES TRI-EX

OMAHA PUBLIC POWER DISTRICT  
FORT CALHOUN NUCLEAR STATION

JOINT FREQUENCY DISTRIBUTION WIND DIRECTION VS. WIND SPEED IN METERS/SEC FOR

DT100 = +4.1 TO +INF IN PERCENT DATA USED -- WD10 .WS10 .DT100

SECTOR IS WIND DIRECTION NOT AFFECTED DIRECTION

| SECTOR | 0.0 TO 0.4 | 0.5 TO 0.9 | 1.0 TO 1.4 | 1.5 TO 1.9 | 2.0 TO 2.4 | 2.5 TO 2.9 | 3.0 TO 3.4 | 3.5 TO 3.9 | 4.0 TO 4.4 | 4.5 TO 4.9 | 5.0 TO 5.9 | 6.0 TO 6.9 | 7.0 TO 7.9 | 8.0 TO 8.9 | 9.0 TO INF | TOTAL | UBAR |
|--------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|-------|------|
| NNE    | 0.00       | 0.04       | 0.14       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.18  | 1.1  |
| NE     | 0.00       | 0.18       | 0.05       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.23  | 0.9  |
| ENE    | 0.00       | 0.09       | 0.14       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.23  | 0.9  |
| E      | 0.00       | 0.05       | 0.09       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.14  | 1.1  |
| ESE    | 0.00       | 0.05       | 0.18       | 0.14       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.37  | 1.3  |
| SE     | 0.00       | 0.14       | 0.27       | 0.05       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.46  | 1.1  |
| SSE    | 0.00       | 0.05       | 0.18       | 0.04       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.27  | 1.2  |
| S      | 0.00       | 0.05       | 0.09       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.14  | 0.8  |
| SSW    | 0.05       | 0.04       | 0.14       | 0.14       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.37  | 1.1  |
| SW     | 0.05       | 0.05       | 0.41       | 0.14       | 0.04       | 0.00       | 0.00       | 0.00       | 0.00       | 0.04       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.73  | 1.5  |
| WSW    | 0.00       | 0.00       | 0.41       | 0.09       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.50  | 1.2  |
| W      | 0.05       | 0.09       | 0.05       | 0.04       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.23  | 0.9  |
| WNW    | 0.00       | 0.14       | 0.04       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.18  | 1.0  |
| NW     | 0.00       | 0.14       | 0.41       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.55  | 1.1  |
| NNW    | 0.00       | 0.00       | 0.14       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.14  | 1.3  |
| N      | 0.00       | 0.05       | 0.27       | 0.09       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.41  | 1.3  |
| TOTAL  | 0.15       | 1.16       | 3.01       | 0.73       | 0.04       | 0.00       | 0.00       | 0.00       | 0.00       | 0.04       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 5.13  | 1.2  |

NUMBER OF INVALID OBSERVATIONS= 0.

PERCENT OF VALID OBSERVATIONS= 5.1

TABLE 159 - ALL

DATA PERIOD 10/01/1991 THROUGH 12/31/1991 RUN FROM TAPE SERIES TRI-EX

OMAHA PUBLIC POWER DISTRICT  
FORT CALHOUN NUCLEAR STATION

JOINT FREQUENCY DISTRIBUTION WIND DIRECTION VS. WIND SPEED IN METERS/SEC FOR

DT100 = -INF TO +INF IN PERCENT DATA USED -- WD10 .WS10 .DT100

SECTOR IS WIND DIRECTION NOT AFFECTED DIRECTION

| SECTOR | 0.0  |      | 0.5   |       | 1.0   |       | 1.5   |      | 2.0  |      | 2.5  |      | 3.0  |      | 3.5  |      | 4.0  |      | 4.5  |      | 5.0  |      | 6.0  |      | 7.0  |      | 8.0  |      | 9.0    |      | TOTAL | UBAR |
|--------|------|------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------|------|-------|------|
|        | TO   | FROM | TO    | FROM  | TO    | FROM  | TO    | FROM | TO   | FROM | TO   | FROM | TO   | FROM | TO   | FROM | TO   | FROM | TO   | FROM | TO   | FROM | TO   | FROM | TO   | FROM | TO   | FROM | TO     | FROM |       |      |
| NNE    | 0.00 | 0.09 | 0.73  | 0.73  | 0.69  | 1.10  | 1.10  | 1.06 | 0.96 | 0.32 | 0.09 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00   | 0.00 | 5.77  | 2.6  |
| NE     | 0.00 | 0.41 | 1.05  | 1.01  | 0.51  | 0.18  | 0.28  | 0.09 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00   | 3.53 | 1.7   |      |
| ENE    | 0.00 | 0.27 | 0.78  | 0.64  | 0.27  | 0.37  | 0.00  | 0.05 | 0.05 | 0.05 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00   | 2.43 | 1.6   |      |
| E      | 0.00 | 0.23 | 0.87  | 0.78  | 0.69  | 0.41  | 0.18  | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00   | 3.20 | 1.8   |      |
| ESE    | 0.00 | 0.24 | 0.82  | 1.10  | 0.41  | 0.64  | 0.14  | 0.32 | 0.09 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00   | 3.80 | 2.0   |      |
| SE     | 0.00 | 0.27 | 1.74  | 1.69  | 0.64  | 1.33  | 0.55  | 0.60 | 0.18 | 0.05 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 7.05   | 2.1  |       |      |
| SSE    | 0.05 | 0.14 | 0.50  | 1.01  | 1.51  | 2.06  | 1.37  | 1.10 | 0.37 | 0.09 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 8.24   | 2.6  |       |      |
| S      | 0.00 | 0.00 | 0.92  | 2.02  | 2.43  | 2.84  | 1.51  | 0.87 | 0.41 | 0.41 | 0.82 | 0.55 | 0.18 | 0.09 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 13.19  | 2.9  |       |      |
| SSW    | 0.09 | 0.23 | 0.55  | 1.74  | 1.14  | 0.37  | 0.69  | 0.32 | 0.09 | 0.09 | 0.18 | 0.50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 6.04   | 2.6  |       |      |
| SW     | 0.05 | 0.27 | 1.37  | 1.69  | 0.46  | 0.50  | 0.14  | 0.14 | 0.05 | 0.05 | 0.05 | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 4.81   | 1.8  |       |      |
| WSW    | 0.00 | 0.41 | 1.37  | 0.50  | 0.14  | 0.09  | 0.05  | 0.05 | 0.05 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.61   | 1.4  |       |      |
| W      | 0.05 | 0.50 | 1.24  | 1.14  | 0.55  | 0.32  | 0.05  | 0.09 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 3.94   | 1.6  |       |      |
| WNW    | 0.00 | 0.28 | 1.15  | 0.82  | 0.41  | 0.55  | 0.23  | 0.18 | 0.18 | 0.09 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 3.89   | 2.0  |       |      |
| NW     | 0.05 | 0.41 | 1.88  | 1.42  | 1.01  | 1.37  | 1.92  | 1.33 | 0.73 | 1.37 | 1.37 | 1.24 | 0.50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 13.23  | 3.1  |       |      |
| NNW    | 0.00 | 0.27 | 1.19  | 0.87  | 0.69  | 0.96  | 1.42  | 0.87 | 0.92 | 0.55 | 0.37 | 0.41 | 0.18 | 0.05 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 8.75   | 3.1  |       |      |
| N      | 0.00 | 0.37 | 1.05  | 1.42  | 0.82  | 1.56  | 1.65  | 1.78 | 0.50 | 0.23 | 0.09 | 0.05 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 9.52   | 2.7  |       |      |
| TOTAL  | 0.29 | 4.57 | 17.21 | 18.58 | 12.37 | 14.65 | 11.24 | 8.79 | 3.89 | 3.02 | 2.79 | 2.05 | 0.36 | 0.14 | 0.05 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 100.00 | 2.5  |       |      |

NUMBER OF INVALID OBSERVATIONS= 0.

PERCENT OF VALID OBSERVATIONS= 100.0

RELEASE NUMBER 91001      CONTAINMENT PURGE

STARTING TIME      JAN    1, 1991      HOUR 0 MINUTE 1

| TIME<br>HOUR | WS10<br>MPH | WD10<br>DEG | DT110<br>DEG C |
|--------------|-------------|-------------|----------------|
| 1            | 4.8         | 114.5       | -1.1           |
| 2            | 5.1         | 123.8       | -1.0           |
| 3            | 4.5         | 115.1       | -1.1           |
| 4            | 4.8         | 147.7       | -1.0           |
| 5            | 3.8         | 154.6       | -1.2           |
| 6            | 2.7         | 129.0       | -1.1           |
| 7            | 3.7         | 155.1       | -1.1           |
| 8            | 5.1         | 146.0       | -1.1           |
| 9            | 3.0         | 184.2       | -1.4           |

STOP TIME      JAN    1, 1991      HOUR 8 MINUTE 14

STARTING TIME      JAN    1, 1991      HOUR 8 MINUTE 30

| TIME<br>HOUR | WS10<br>MPH | WD10<br>DEG | DT110<br>DEG C |
|--------------|-------------|-------------|----------------|
| 8            | 5.1         | 146.0       | -1.1           |
| 9            | 3.0         | 184.2       | -1.4           |
| 10           | 4.5         | 162.9       | -1.5           |
| 11           | 2.3         | 205.9       | -1.7           |
| 12           | 2.1         | 207.1       | -1.8           |

STOP TIME      JAN    1, 1991      HOUR 11 MINUTE 50

RELEASE NUMBER 91001      CONTAINMENT PURGE

STARTING TIME    JAN    1, 1991    HOUR 12 MINUTE 20

| TIME<br>HOUR | WS10<br>MPH | WD10<br>DEG | DT110<br>DEG C |
|--------------|-------------|-------------|----------------|
| 12           | 2.1         | 207.1       | -1.8           |
| 13           | 0.5         | 292.0       | -2.5           |
| 14           | 1.3         | 283.9       | -2.1           |
| 15           | 2.0         | 304.1       | -1.9           |

STOP TIME        JAN    1, 1991    HOUR 14 MINUTE 13

STARTING TIME    JAN    2, 1991    HOUR 2 MINUTE 40

| TIME<br>HOUR | WS10<br>MPH | WD10<br>DEG | DT110<br>DEG C |
|--------------|-------------|-------------|----------------|
| 2            | 4.3         | 351.3       | -1.5           |
| 3            | 5.6         | 3           | -1.7           |
| 4            | 5.2         | 347.5       | -1.7           |
| 5            | 6.3         | 341.0       | -1.7           |
| 6            | 5.9         | 341.9       | -1.7           |
| 7            | 6.0         | 341.6       | -1.7           |
| 8            | 6.0         | 343.5       | -1.7           |
| 9            | 6.9         | 340.7       | -1.8           |
| 10           | 5.6         | 341.6       | -1.9           |
| 11           | 6.1         | 343.7       | -2.0           |
| 12           | 6.2         | 341.4       | -2.1           |
| 13           | 5.9         | 347.5       | -2.2           |
| 14           | 5.6         | 346.0       | -2.1           |
| 15           | 5.5         | 344.3       | -2.1           |
| 16           | 4.4         | 351.6       | -2.1           |
| 17           | 3.1         | 346.8       | -1.8           |
| 18           | 0.6         | 336.3       | -1.2           |
| 19           | 0.7         | 314.5       | -0.7           |
| 20           | 2.4         | 311.6       | -0.4           |
| 21           | 1.7         | 291.6       | 0.1            |
| 22           | 1.1         | 289.3       | 0.1            |
| 23           | 0.7         | 289.4       | 0.3            |
| 24           | 0.4         | 275.9       | 0.2            |
| 1            | 1.3         | 296.6       | 0.6            |
| 2            | 0.9         | 295.3       | 0.8            |
| 3            | 1.3         | 299.3       | 1.0            |
| 4            | 1.9         | 312.9       | 0.8            |
| 5            | 2.9         | 227.7       | 1.4            |
| 6            | 1.8         | 322.1       | 2.1            |
| 7            | 1.7         | 29.1        | 2.1            |
| 8            | 1.6         | 164.2       | 2.7            |
| 9            | 1.9         | 126.9       | 1.9            |
| 10           | 1.1         | 173.1       | 0.3            |
| 11           | 2.1         | 264.2       | -1.7           |
| 12           | 3.3         | 212.7       | -1.5           |

|    |     |       |      |
|----|-----|-------|------|
| 13 | 3.4 | 214.0 | -1.9 |
| 14 | 3.2 | 221.7 | -1.8 |
| 15 | 3.1 | 214.0 | -1.9 |
| 16 | 2.0 | 218.9 | -1.9 |
| 17 | 1.6 | 188.2 | -1.5 |
| 18 | 1.7 | 177.6 | -0.7 |
| 19 | 1.0 | 151.8 | 0.1  |
| 20 | 5.2 | 197.0 | 0.4  |
| 21 | 2.4 | 247.4 | 0.5  |
| 22 | 0.9 | 258.4 | -0.4 |
| 23 | 1.1 | 33.4  | 1.3  |
| 24 | 1.9 | 260.7 | 2.1  |
| 1  | 1.2 | 264.7 | 1.6  |
| 2  | 0.9 | 284.1 | 1.3  |
| 3  | 0.5 | 282.5 | 0.9  |
| 4  | 0.5 | 292.7 | 0.3  |
| 5  | 1.9 | 205.3 | 0.5  |
| 6  | 4.1 | 192.1 | 1.7  |
| 7  | 3.7 | 328.0 | 2.1  |
| 8  | 3.7 | 106.5 | 2.3  |

STOP TIME    JAN    4, 1991    HOUR    7    MINUTE    53

RELEASE NUMBER 91002      CONTAINMENT PURGE

STARTING TIME      JAN    4, 1991      HOUR 17 MINUTE 1

| TIME<br>HOUR | WS10<br>MPH | WD10<br>DEG | DT110<br>DEG C |
|--------------|-------------|-------------|----------------|
| 17           | 6.2         | 118.4       | -1.6           |
| 18           | 6.3         | 119.2       | -1.5           |
| 19           | 5.0         | 116.1       | -1.5           |
| 20           | 4.6         | 129.4       | -1.5           |
| 21           | 3.3         | 119.2       | -1.4           |
| 22           | 1.8         | 113.6       | -1.4           |
| 23           | 2.6         | 108.2       | -1.4           |
| 24           | 3.1         | 110.7       | -1.4           |
| 1            | 2.5         | 110.1       | -1.4           |
| 2            | 0.9         | 78.1        | -1.3           |
| 3            | 0.2         | 33.1        | -1.3           |
| 4            | 0.4         | 360.0       | -1.2           |
| 5            | 0.4         | 309.2       | -1.2           |
| 6            | 0.2         | 287.9       | -0.8           |
| 7            | 1.0         | 290.5       | -0.5           |
| 8            | 1.8         | 291.8       | 0.4            |
| 9            | 1.1         | 281.3       | 1.0            |
| 10           | 0.6         | 284.9       | 0.1            |
| 11           | 1.7         | 295.6       | -0.5           |
| 12           | 2.9         | 308.6       | -1.3           |
| 13           | 3.3         | 307.7       | -1.7           |
| 14           | 3.6         | 308.3       | -1.6           |
| 15           | 3.4         | 304.4       | -1.3           |
| 16           | 1.8         | 314.2       | -1.2           |
| 17           | 2.0         | 304.6       | -0.4           |
| 18           | 1.2         | 279.5       | 0.7            |
| 19           | 0.9         | 281.2       | 1.0            |
| 20           | 2.0         | 290.3       | 1.2            |
| 21           | 1.8         | 290.6       | 1.3            |
| 22           | 1.4         | 293.8       | 0.4            |
| 23           | 1.6         | 296.6       | 0.7            |
| 24           | 1.7         | 297.3       | 0.2            |
| 1            | 1.7         | 292.7       | 0.2            |
| 2            | 1.4         | 291.5       | 0.5            |
| 3            | 1.1         | 283.9       | 0.5            |
| 4            | 1.4         | 281.5       | 0.7            |
| 5            | 0.8         | 276.3       | 0.3            |
| 6            | 0.7         | 281.6       | 0.5            |
| 7            | 1.0         | 285.1       | 1.1            |
| 8            | 0.6         | 275.5       | 1.7            |
| 9            | 0.6         | 277.6       | 1.2            |
| 10           | 0.8         | 296.8       | -0.2           |
| 11           | 1.6         | 289.3       | -0.3           |
| 12           | 2.5         | 298.0       | -0.1           |
| 13           | 2.1         | 295.7       | -0.6           |
| 14           | 2.2         | 303.5       | -1.2           |
| 15           | 3.6         | 299.0       | -1.4           |
| 16           | 4.0         | 299.2       | -0.8           |
| 17           | 2.9         | 305.1       | -0.8           |

|    |     |       |     |
|----|-----|-------|-----|
| 18 | 1.9 | 293.8 | 0.7 |
| 19 | 3.0 | 304.1 | 0.7 |
| 20 | 2.5 | 294.1 | 1.8 |
| 21 | 1.9 | 290.9 | 2.0 |
| 22 | 1.5 | 286.0 | 1.0 |
| 23 | 0.5 | 288.8 | 1.2 |
| 24 | 0.2 | 275.3 | 1.3 |
|    | 1.6 | 290.4 | 1.7 |
| 2  | 0.9 | 286.4 | 2.9 |
| 3  | 0.8 | 287.0 | 3.1 |
| 4  | 0.5 | 289.3 | 2.8 |
| 5  | 0.5 | 289.5 | 2.3 |
| 6  | 0.5 | 289.2 | 2.9 |
| 7  | 0.4 | 311.2 | 3.3 |

STOP TIME JAN 7, 1991 HOUR 6 MINUTE 40

RELEASE NUMBER 91003      CONTAINMENT PURGE

STARTING TIME      JAN    9, 1991      HOUR 2 MINUTE 12

| TIME<br>HOUR | WS10<br>MPH | WD10<br>DEG | DT110<br>DEG C |
|--------------|-------------|-------------|----------------|
| 2            | 4.9         | 312.9       | -1.4           |
| 3            | 3.5         | 314.4       | -1.0           |
| 4            | 2.8         | 316.1       | -0.9           |
| 5            | 3.6         | 310.2       | -1.1           |

STOP TIME      JAN    9, 1991      HOUR 4 MINUTE 19



RELEASE NUMBER 91004 CONTAINMENT PURGE

STARTING TIME JAN 9, 1991 HOUR 11 MINUTE 8

| TIME<br>HOUR | WS10<br>MPH | WD10<br>DEG | DT110<br>DEG C |
|--------------|-------------|-------------|----------------|
| 11           | 0.5         | 288.6       | -1.4           |
| 12           | 0.5         | 302.1       | -1.6           |
| 13           | 0.9         | 331.4       | -2.2           |
| 14           | 1.8         | 34.9        | -2.2           |
| 15           | 2.1         | 26.0        | -1.9           |
| 16           | 1.0         | 32.9        | -1.7           |
| 17           | 0.7         | 41.6        | -1.5           |
| 18           | 1.3         | 229.6       | -0.1           |
| 19           | 2.4         | 115.9       | -0.4           |
| 20           | 0.4         | 181.3       | 0.2            |
| 21           | 0.2         | 302.9       | 1.2            |
| 22           | 0.4         | 345.9       | 0.2            |
| 23           | 0.6         | 15.4        | 0.3            |
| 24           | 0.8         | 87.5        | -0.7           |
| 1            | 1.6         | 85.1        | -0.8           |
| 2            | 0.5         | 23.3        | -0.4           |
| 3            | 0.5         | 216.7       | -0.1           |
| 4            | 0.4         | 345.8       | -0.7           |
| 5            | 1.3         | 44.9        | -1.3           |
| 6            | 2.4         | 61.5        | -1.5           |
| 7            | 2.4         | 92.1        | -1.4           |
| 8            | 1.6         | 95.1        | -1.3           |
| 9            | 1.3         | 90.5        | -1.4           |
| 10           | 3.8         | 95.0        | -1.7           |

STOP TIME JAN 10, 1991 HOUR 9 MINUTE 35

STARTING TIME JAN 10, 1991 HOUR 11 MINUTE 11

| TIME<br>HOUR | WS10<br>MPH | WD10<br>DEG | DT110<br>DEG C |
|--------------|-------------|-------------|----------------|
| 11           | 3.0         | 74.5        | -1.8           |
| 12           | 3.8         | 69.3        | -1.8           |
| 13           | 5.9         | 102.4       | -1.7           |
| 14           | 2.9         | 120.0       | -1.5           |
| 15           | 1.6         | 17.8        | -1.7           |
| 16           | 2.0         | 28.1        | -1.7           |
| 17           | 2.6         | 54.9        | -1.6           |
| 18           | 1.7         | 65.7        | -1.5           |
| 19           | 1.3         | 48.0        | -1.5           |
| 20           | 0.8         | 29.2        | -1.5           |
| 21           | 1.3         | 342.8       | -1.1           |
| 22           | 0.8         | 325.1       | -1.1           |
| 23           | 0.7         | 303.0       | -1.1           |
| 24           | 1.8         | 301.5       | -1.1           |
| 1            | 1.8         | 295.0       | -1.2           |

|    |     |       |      |
|----|-----|-------|------|
| 2  | 1.3 | 294.5 | -1.2 |
| 3  | 2.2 | 308.0 | -1.1 |
| 4  | 3.4 | 313.2 | -1.3 |
| 5  | 3.0 | 314.6 | -1.5 |
| 6  | 3.3 | 308.7 | -1.5 |
| 7  | 4.6 | 313.1 | -1.6 |
| 8  | 5.0 | 315.5 | -1.5 |
| 9  | 4.6 | 316.9 | -1.5 |
| 10 | 6.0 | 309.3 | -1.6 |
| 11 | 5.1 | 311.9 | -1.6 |
| 12 | 7.4 | 161.4 | -1.7 |
| 13 | 8.3 | 220.0 | -1.8 |
| 14 | 8.7 | 261.1 | -1.7 |
| 15 | 7.9 | 238.1 | -1.7 |
| 16 | 6.5 | 308.1 | -1.6 |
| 17 | 6.3 | 316.2 | -1.5 |
| 18 | 3.8 | 319.4 | -1.5 |
| 19 | 4.1 | 313.3 | -1.4 |
| 20 | 6.4 | 307.5 | -1.4 |
| 21 | 5.9 | 306.4 | -1.4 |

STOP TIME    JAN 11, 1991    HOUR 20 MINUTE 33

RELEASE NUMBER 91005      CONTAINMENT PURGE

STARTING TIME      JAN 12, 1991      HOUR 12 MINUTE 52

| TIME<br>HOUR | WS10<br>MPH | WD10<br>DEG | DT110<br>DEG C |
|--------------|-------------|-------------|----------------|
| 12           | 3.5         | 199.8       | -1.7           |
| 13           | 5.1         | 166.2       | -1.6           |
| 14           | 6.2         | 168.7       | -1.8           |
| 15           | 6.2         | 186.0       | -1.7           |
| 16           | 6.0         | 166.7       | -1.7           |
| 17           | 4.9         | 155.3       | -1.6           |
| 18           | 3.9         | 146.6       | -1.3           |
| 19           | 4.4         | 121.8       | -1.1           |
| 20           | 4.7         | 117.9       | -1.0           |
| 21           | 3.8         | 116.0       | -0.8           |
| 22           | 3.6         | 139.8       | -1.0           |
| 23           | 4.1         | 126.4       | -1.1           |
| 24           | 4.1         | 129.3       | -0.9           |
| 1            | 5.1         | 127.6       | -0.8           |
| 2            | 4.8         | 121.6       | -1.1           |
| 3            | 5.5         | 117.9       | -1.2           |
| 4            | 5.5         | 136.1       | -1.2           |
| 5            | 6.5         | 135.6       | -1.2           |
| 6            | 6.1         | 140.0       | -1.1           |
| 7            | 5.6         | 143.6       | -1.1           |
| 8            | 4.6         | 145.6       | -1.2           |
| 9            | 3.7         | 125.4       | -1.2           |
| 10           | 4.8         | 218.2       | -1.7           |
| 11           | 4.7         | 200.4       | -1.9           |
| 12           | 3.0         | 213.9       | -1.9           |
| 13           | 3.7         | 204.5       | -1.2           |
| 14           | 4.0         | 219.4       | -0.4           |
| 15           | 4.5         | 255.0       | 0.6            |
| 16           | 7.2         | 239.2       | 1.6            |
| 17           | 9.2         | 236.5       | 2.1            |
| 18           | 7.5         | 239.9       | 2.4            |
| 19           | 7.8         | 228.7       | 2.4            |

STOP TIME      JAN 13, 1991      HOUR 18 MINUTE 25

RELEASE NUMBER 91006      CONTAINMENT PURGE

STARTING TIME      JAN 14, 1991      HOUR 12 MINUTE 52

| TIME<br>HOUR | WS10<br>MPH | WD10<br>DEG | DT110<br>DEG C |
|--------------|-------------|-------------|----------------|
| 12           | 1.5         | 287.4       | -0.3           |
| 13           | 2.0         | 294.8       | -1.3           |
| 14           | 0.9         | 265.5       | -1.4           |
| 15           | 2.1         | 227.6       | -1.4           |
| 16           | 3.5         | 216.7       | -0.9           |
| 17           | 3.7         | 228.9       | 0.1            |
| 18           | 0.4         | 327.7       | 1.8            |
| 19           | 1.1         | 331.2       | 3.5            |
| 20           | 0.9         | 7.4         | 5.3            |
| 21           | 0.1         | 256.5       | 5.2            |
| 22           | 0.5         | 278.6       | 6.0            |
| 23           | 0.4         | 293.9       | 6.2            |
| 24           | 0.4         | 230.3       | 6.2            |
| 1            | 0.1         | 185.2       | 7.0            |
| 2            | 0.4         | 312.0       | 5.1            |
| 3            | 0.5         | 297.8       | 4.3            |
| 4            | 0.2         | 331.5       | 2.7            |
| 5            | 0.4         | 288.0       | 2.8            |
| 6            | 0.4         | 312.0       | 0.2            |
| 7            | 0.4         | 322.1       | -0.9           |
| 8            | 0.4         | 284.3       | -0.4           |
| 9            | 0.4         | 263.0       | -0.8           |
| 10           | 0.4         | 300.7       | -1.2           |

STOP TIME      JAN 15, 1991      HOUR 9 MINUTE 10

## RELEASE NUMBER 91007      CONTAINMENT PURGE

STARTING TIME      JAN 17, 1991      HOUR 14 MINUTE 30

| TIME<br>HOUR | WS10<br>MPH | WD10<br>DEG | DT110<br>DEG C |
|--------------|-------------|-------------|----------------|
| 14           | 0.8         | 278.0       | -1.9           |
| 15           | 0.4         | 282.0       | -1.9           |
| 16           | 0.5         | 351.5       | -2.0           |
| 17           | 0.2         | 133.9       | -1.8           |
| 18           | 1.1         | 67.5        | -1.6           |
| 19           | 1.7         | 109.0       | -0.8           |
| 20           | 1.1         | 202.3       | 0.4            |
| 21           | 1.5         | 255.1       | 1.7            |
| 22           | 1.3         | 172.3       | 2.5            |
| 23           | 0.7         | 218.1       | 0.1            |
| 24           | 0.7         | 144.4       | -0.8           |
| 1            | 4.2         | 195.0       | 0.7            |
| 2            | 1.1         | 217.7       | -0.3           |
| 3            | 2.3         | 181.5       | -0.7           |
| 4            | 2.7         | 150.7       | -1.0           |
| 5            | 2.5         | 174.3       | -0.4           |
| 6            | 1.5         | 159.6       | -1.1           |
| 7            | 1.3         | 140.9       | -0.9           |
| 8            | 1.8         | 103.7       | -0.7           |
| 9            | 0.7         | 190.8       | 0.2            |
| 10           | 4.7         | 171.8       | 1.5            |
| 11           | 5.4         | 173.5       | 2.1            |
| 12           | 4.8         | 167.4       | 1.4            |
| 13           | 3.4         | 150.6       | -1.4           |
| 14           | 5.8         | 170.4       | -1.2           |
| 15           | 9.4         | 171.1       | -1.3           |
| 16           | 9.3         | 181.8       | -1.2           |
| 17           | 9.5         | 189.1       | -0.7           |
| 18           | 10.9        | 177.6       | -0.3           |
| 19           | 11.2        | 177.9       | -0.1           |
| 20           | 12.0        | 183.8       | -0.1           |
| 21           | 12.0        | 188.4       | -0.1           |
| 22           | 13.4        | 190.3       | 0.3            |
| 23           | 12.4        | 192.1       | 0.1            |
| 24           | 12.4        | 193.1       | -0.5           |
| 1            | 14.2        | 194.8       | -0.5           |
| 2            | 14.3        | 199.0       | -0.2           |
| 3            | 16.2        | 203.4       | -0.1           |
| 4            | 15.8        | 203.8       | 0.4            |
| 5            | 17.8        | 204.4       | 0.3            |
| 6            | 17.5        | 204.8       | 0.4            |
| 7            | 16.4        | 203.3       | 0.3            |
| 8            | 16.7        | 200.0       | 0.4            |
| 9            | 16.6        | 195.6       | -0.3           |
| 10           | 15.7        | 196.3       | -1.0           |
| 11           | 14.9        | 196.5       | -1.4           |
| 12           | 10.1        | 198.5       | -1.5           |
| 13           | 10.3        | 212.6       | -1.6           |
| 14           | 6.4         | 238.1       | -1.7           |

|    |     |       |      |
|----|-----|-------|------|
| 15 | 3.6 | 292.2 | -1.3 |
| 16 | 7.5 | 339.9 | -1.4 |
| 17 | 7.7 | 333.9 | -1.5 |
| 18 | 6.9 | 329.8 | -1.4 |
| 19 | 5.3 | 326.8 | -1.4 |
| 20 | 6.2 | 321.8 | -1.3 |
| 21 | 5.5 | 323.1 | -1.3 |
| 22 | 5.4 | 322.2 | -1.4 |
| 23 | 7.5 | 327.5 | -1.4 |
| 24 | 6.6 | 323.5 | -1.4 |
| 1  | 3.7 | 318.1 | -1.3 |
| 2  | 1.8 | 315.0 | -1.3 |
| 3  | 1.9 | 297.1 | -0.9 |
| 4  | 2.1 | 290.5 | -1.0 |
| 5  | 1.3 | 318.0 | -1.3 |
| 6  | 0.5 | 335.0 | -1.4 |
| 7  | 0.2 | 321.2 | -1.5 |
| 8  | 0.7 | 314.2 | -1.2 |
| 9  | 0.4 | 306.1 | -1.4 |
| 10 | 0.3 | 312.9 | -1.6 |
| 11 | 0.6 | 315.2 | -1.9 |
| 12 | 1.0 | 313.6 | -1.9 |
| 13 | 0.9 | 313.6 | -2.1 |
| 14 | 1.1 | 320.2 | -2.0 |
| 15 | 0.7 | 316.8 | -1.9 |
| 16 | 2.2 | 312.5 | -1.9 |
| 17 | 4.7 | 321.2 | -1.8 |
| 18 | 3.8 | 316.4 | -1.3 |
| 19 | 2.7 | 315.8 | -1.0 |
| 20 | 4.3 | 303.5 | -0.9 |

STOP TIME JAN 20, 1991 HOUR 19 MINUTE 30

RELEASE NUMBER 91008      CONTAINMENT PURGE

STARTING TIME      JAN 24, 1991      HOUR 17 MINUTE 27

| TIME<br>HOUR | WS10<br>MPH | WD10<br>DEG | DT110<br>DEG C |
|--------------|-------------|-------------|----------------|
| 17           | 6.4         | 103.2       | -1.6           |
| 18           | 6.3         | 97.8        | -1.6           |
| 19           | 7.1         | 95.9        | -1.7           |
| 20           | 5.8         | 95.4        | -1.6           |
| 21           | 4.5         | 80.3        | -1.5           |
| 22           | 3.4         | 64.3        | -1.5           |
| 23           | 3.8         | 70.5        | -1.4           |
| 24           | 3.9         | 75.4        | -1.5           |
| 1            | 3.4         | 73.1        | -1.5           |
| 2            | 2.0         | 52.8        | -1.4           |
| 3            | 1.8         | 348.8       | -1.5           |
| 4            | 2.2         | 23.4        | -1.5           |
| 5            | 2.5         | 17.7        | -1.6           |

STOP TIME      JAN 25, 1991      HOUR 4 MINUTE 39

STARTING TIME      JAN 25, 1991      HOUR 5 MINUTE 45

| TIME<br>HOUR | WS10<br>MPH | WD10<br>DEG | DT110<br>DEG C |
|--------------|-------------|-------------|----------------|
| 5            | 2.5         | 17.7        | -1.6           |
| 6            | 2.8         | 12.1        | -1.7           |
| 7            | 2.3         | 18.8        | -1.6           |
| 8            | 1.7         | 33.4        | -1.5           |
| 9            | 1.2         | 12.7        | -1.6           |
| 10           | 2.1         | 349.8       | -1.9           |
| 11           | 2.5         | 343.7       | -2.2           |
| 12           | 3.0         | 341.6       | -2.1           |

STOP TIME      JAN 25, 1991      HOUR 11 MINUTE 23

## RELEASE NUMBER 91008      CONTAINMENT PURGE

STARTING TIME      JAN 25, 1991      HOUR 11 MINUTE 40

| TIME<br>HOUR | WS10<br>MPH | WD10<br>DEG | DT110<br>DEG C |
|--------------|-------------|-------------|----------------|
| 11           | 2.5         | 343.7       | -2.2           |
| 12           | 3.0         | 341.6       | -2.1           |
| 13           | 2.3         | 317.0       | -1.7           |
| 14           | 4.5         | 306.3       | -1.5           |
| 15           | 3.4         | 302.0       | -1.5           |
| 16           | 1.8         | 295.3       | -1.3           |
| 17           | 0.8         | 290.0       | -1.1           |
| 18           | 1.1         | 237.8       | -0.2           |
| 19           | 1.9         | 214.7       | 1.6            |
| 20           | 0.4         | 276.8       | 2.5            |
| 21           | 1.0         | 188.9       | 1.9            |
| 22           | 1.0         | 243.4       | 1.8            |
| 23           | 1.6         | 159.2       | 2.4            |
| 24           | 1.6         | 160.1       | 1.9            |
| 1            | 1.9         | 164.5       | 3.1            |
| 2            | 0.6         | 179.0       | 0.2            |
| 3            | 1.4         | 201.4       | 0.5            |
| 4            | 0.7         | 266.2       | -0.2           |
| 5            | 1.8         | 171.3       | 0.2            |
| 6            | 10.3        | 222.8       | 5.5            |
| 7            | 10.0        | 228.1       | 2.8            |
| 8            | 9.1         | 244.4       | 1.3            |
| 9            | 4.3         | 248.9       | 1.2            |
| 10           | 5.3         | 260.3       | 0.2            |
| 11           | 5.7         | 267.1       | -0.8           |
| 12           | 4.8         | 260.4       | -1.3           |
| 13           | 1.8         | 282.0       | -1.8           |
| 14           | 2.3         | 240.1       | -1.9           |
| 15           | 6.0         | 208.5       | -1.7           |
| 16           | 7.7         | 191.5       | -1.6           |
| 17           | 8.1         | 181.9       | -1.4           |
| 18           | 9.0         | 184.3       | -0.6           |
| 19           | 9.4         | 189.3       | 0.3            |
| 20           | 10.7        | 191.2       | 1.5            |
| 21           | 12.6        | 192.8       | 2.2            |
| 22           | 12.9        | 193.7       | 2.8            |
| 23           | 14.0        | 195.4       | 1.6            |
| 24           | 15.3        | 198.1       | 1.6            |
| 1            | 17.4        | 198.3       | 1.6            |
| 2            | 17.7        | 199.4       | 1.7            |
| 3            | 14.0        | 223.3       | 0.9            |
| 4            | 1.0         | 297.8       | -0.4           |
| 5            | 7.5         | 245.9       | 2.6            |
| 6            | 1.9         | 266.2       | 3.4            |
| 7            | 0.5         | 324.9       | 4.1            |
| 8            | 4.0         | 261.6       | 2.6            |
| 9            | 6.0         | 266.8       | 0.1            |
| 10           | 5.8         | 269.9       | 0.9            |
| 11           | 6.3         | 272.1       | -0.1           |



|    |      |       |      |
|----|------|-------|------|
| 12 | 4.9  | 272.7 | -0.8 |
| 13 | 4.8  | 259.4 | -1.4 |
| 14 | 5.2  | 248.3 | -1.3 |
| 15 | 6.9  | 241.1 | -1.7 |
| 16 | 7.3  | 236.5 | -1.5 |
| 17 | 8.0  | 223.0 | -0.9 |
| 18 | 10.2 | 206.7 | 1.0  |
| 19 | 10.4 | 200.4 | 1.8  |
| 20 | 12.2 | 206.5 | 2.0  |
| 21 | 12.0 | 208.9 | 2.2  |
| 22 | 11.5 | 200.5 | 2.5  |
| 23 | 14.1 | 198.6 | 2.8  |
| 24 | 13.7 | 196.8 | 2.1  |
| 1  | 13.1 | 195.2 | 1.7  |
| 2  | 15.2 | 200.1 | 1.1  |
| 3  | 16.3 | 201.0 | 1.0  |
| 4  | 16.2 | 205.8 | 1.9  |
| 5  | 12.9 | 215.5 | 1.7  |
| 6  | 10.1 | 223.0 | 2.1  |
| 7  | 2.7  | 248.5 | 0.4  |
| 8  | 0.1  | 261.2 | 0.1  |
| 9  | 0.5  | 300.8 | 0.2  |
| 10 | 0.4  | 294.0 | -0.3 |

STOP TIME    JAN 28, 1991    HOUR 9 MINUTE 42

RELEASE NUMBER 91009      CONTAINMENT PURGE

STARTING TIME      JAN 31, 1991      HOUR 22 MINUTE 0

| TIME<br>HOUR | WS10<br>MPH | WD10<br>DEG | DT110<br>DEG C |
|--------------|-------------|-------------|----------------|
| 22           | 1.7         | 128.0       | 4.1            |
| 23           | 1.0         | 256.4       | 7.0            |
| 24           | 2.2         | 147.2       | 10.2           |
| 1            | 1.5         | 296.2       | 8.7            |
| 2            | 2.2         | 275.1       | 8.2            |
| 3            | 1.2         | 213.0       | 9.6            |
| 4            | 1.3         | 206.4       | 9.5            |
| 5            | 1.0         | 27.0        | 5.5            |
| 6            | 1.4         | 158.3       | 7.4            |
| 7            | 2.5         | 92.9        | 3.1            |
| 8            | 3.3         | 191.9       | 2.7            |
| 9            | 5.2         | 158.2       | 0.6            |
| 10           | 5.8         | 174.2       | -1.0           |
| 11           | 9.0         | 187.4       | -0.9           |
| 12           | 6.7         | 183.6       | -1.7           |
| 13           | 6.9         | 201.8       | -1.1           |
| 14           | 4.1         | 217.5       | -1.8           |

STOP TIME      FEB 1, 1991      HOUR 13 MINUTE 22

STARTING TIME      FEB 1, 1991      HOUR 14 MINUTE 16

| TIME<br>HOUR | WS10<br>MPH | WD10<br>DEG | DT110<br>DEG C |
|--------------|-------------|-------------|----------------|
| 14           | 4.1         | 217.5       | -1.8           |
| 15           | 4.5         | 219.2       | -1.6           |
| 16           | 3.8         | 203.5       | -1.4           |
| 17           | 3.5         | 193.5       | -1.2           |
| 18           | 2.0         | 220.4       | -0.8           |
| 19           | 2.0         | 213.5       | 0.3            |
| 20           | 2.8         | 233.1       | 1.2            |
| 21           | 3.9         | 227.8       | 1.6            |
| 22           | 1.7         | 247.1       | 1.2            |
| 23           | 1.1         | 278.5       | 0.9            |
| 24           | 1.2         | 270.4       | 4.1            |
| 1            | 1.4         | 178.9       | 7.2            |
| 2            | 1.0         | 203.3       | 7.3            |
| 3            | 1.3         | 106.1       | 8.7            |
| 4            | 1.4         | 106.7       | 8.6            |
| 5            | 0.8         | 118.4       | 8.0            |
| 6            | 1.4         | 122.5       | 7.6            |
| 7            | 1.4         | 123.3       | 6.8            |
| 8            | 0.7         | 206.8       | 8.4            |
| 9            | 1.2         | 279.3       | 8.0            |
| 10           | 1.4         | 89.4        | 0.8            |
| 11           | 1.6         | 153.2       | -1.7           |

|    |      |       |      |
|----|------|-------|------|
| 12 | 2.4  | 144.7 | -1.8 |
| 13 | 3.6  | 157.5 | -1.7 |
| 14 | 6.5  | 163.9 | -1.4 |
| 15 | 9.4  | 162.2 | -1.5 |
| 16 | 9.8  | 161.8 | -1.2 |
| 17 | 9.2  | 153.2 | -1.1 |
| 18 | 8.4  | 147.6 | -0.7 |
| 19 | 7.1  | 147.5 | -0.4 |
| 20 | 7.3  | 156.4 | 0.1  |
| 21 | 11.4 | 166.7 | 0.3  |
| 22 | 13.8 | 170.7 | -0.1 |
| 23 | 12.9 | 169.6 | -0.1 |
| 24 | 13.0 | 168.8 | -0.2 |
| 1  | 14.8 | 172.6 | -0.2 |
| 2  | 15.8 | 175.2 | -0.2 |
| 3  | 15.7 | 174.2 | -0.3 |
| 4  | 9.1  | 176.3 | -0.6 |
| 5  | 6.0  | 172.1 | -0.7 |
| 6  | 9.5  | 175.8 | -0.3 |
| 7  | 12.0 | 179.5 | -0.2 |
| 8  | 11.3 | 182.2 | -0.4 |
| 9  | 12.5 | 177.5 | -0.5 |
| 10 | 12.5 | 180.3 | -1.0 |
| 11 | 12.0 | 185.6 | -1.1 |
| 12 | 11.6 | 182.9 | -1.3 |
| 13 | 10.1 | 172.6 | -1.3 |
| 14 | 10.3 | 165.4 | -1.4 |
| 15 | 8.4  | 174.8 | -1.2 |
| 16 | 7.1  | 169.3 | -1.3 |
| 17 | 2.0  | 158.1 | -1.2 |
| 18 | 0.5  | 161.4 | -0.1 |
| 19 | 1.0  | 138.7 | 3.2  |
| 20 | 2.1  | 146.5 | 4.0  |
| 21 | 1.4  | 242.4 | 4.5  |
| 22 | 1.6  | 144.5 | 4.8  |
| 23 | 2.4  | 202.5 | 5.4  |
| 24 | 1.4  | 309.9 | 4.1  |
| 1  | 0.9  | 57.2  | 3.8  |
| 2  | 0.9  | 290.1 | 2.9  |
| 3  | 1.6  | 299.6 | 1.4  |
| 4  | 1.9  | 289.0 | 1.1  |
| 5  | 1.6  | 276.9 | 0.8  |
| 6  | 1.6  | 276.8 | 1.1  |
| 7  | 2.0  | 222.1 | 1.2  |
| 8  | 1.2  | 250.7 | 1.3  |
| 9  | 1.7  | 284.8 | 1.3  |
| 10 | 0.6  | 291.1 | -0.7 |
| 11 | 0.8  | 325.6 | -1.3 |

STOP TIME FEB 4, 1991 HOUR 10 MINUTE 2

RELEASE NUMBER 91010 CONTAINMENT PURGE

STARTING TIME FEB 7, 1991 HOUR 17 MINUTE 41

| TIME HOUR | WS10 MPH | WD10 DEG | DT110 DEG C |
|-----------|----------|----------|-------------|
| 17        | 0.8      | 270.3    | -1.8        |
| 18        | 0.7      | 202.9    | -1.1        |
| 19        | 1.0      | 123.8    | 0.7         |
| 20        | 1.3      | 128.7    | 1.3         |
| 21        | 0.7      | 118.5    | 2.2         |
| 22        | 0.6      | 149.2    | 2.6         |
| 23        | 2.0      | 150.8    | 1.8         |
| 24        | 0.6      | 142.8    | 1.4         |
| 1         | 2.1      | 147.4    | 1.5         |
| 2         | 2.5      | 173.2    | 0.7         |
| 3         | 2.1      | 120.7    | 0.4         |
| 4         | 2.0      | 146.6    | 0.1         |
| 5         | 1.4      | 186.8    | 0.8         |
| 6         | 3.1      | 193.9    | 2.2         |
| 7         | 1.8      | 137.3    | 0.3         |
| 8         | 3.2      | 186.8    | 1.6         |
| 9         | 2.0      | 278.5    | 0.7         |
| 10        | 1.3      | 312.1    | -0.6        |
| 11        | 1.3      | 231.7    | -1.6        |
| 12        | 1.4      | 146.4    | -1.7        |
| 13        | 5.8      | 202.9    | -1.2        |
| 14        | 8.3      | 200.9    | -0.8        |
| 15        | 12.1     | 201.9    | -1.0        |
| 16        | 11.1     | 195.1    | -1.2        |
| 17        | 9.5      | 188.9    | -0.8        |
| 18        | 9.2      | 190.8    | 1.0         |
| 19        | 7.0      | 189.9    | 2.5         |
| 20        | 5.1      | 193.4    | 3.1         |
| 21        | 11.4     | 197.6    | 3.4         |
| 22        | 13.1     | 203.7    | 4.0         |
| 23        | 14.4     | 204.8    | 3.7         |
| 24        | 15.2     | 205.0    | 3.6         |
| 1         | 7.9      | 259.4    | 1.7         |
| 2         | 1.2      | 275.9    | 1.2         |
| 3         | 1.3      | 166.0    | 2.5         |
| 4         | 1.4      | 212.8    | 2.2         |
| 5         | 0.9      | 285.0    | 1.4         |
| 6         | 1.2      | 279.2    | 1.9         |
| 7         | 1.7      | 292.0    | 1.7         |
| 8         | 1.8      | 308.0    | -0.1        |
| 9         | 3.2      | 300.1    | 0.1         |
| 10        | 3.0      | 318.7    | -1.5        |
| 11        | 3.6      | 318.4    | -1.6        |
| 12        | 3.7      | 320.8    | -1.9        |
| 13        | 3.5      | 329.1    | -2.0        |
| 14        | 4.9      | 327.0    | -2.0        |
| 15        | 4.4      | 326.7    | -2.0        |
| 16        | 4.4      | 339.9    | -1.9        |
| 17        | 4.1      | 325.5    | -1.5        |

|    |     |       |      |
|----|-----|-------|------|
| 18 | 1.2 | 356.7 | -0.7 |
| 19 | 1.6 | 13.0  | 0.5  |
| 20 | 0.3 | 278.2 | 0.5  |
| 21 | 1.2 | 285.6 | 1.5  |
| 22 | 1.2 | 278.7 | 1.8  |
| 23 | 1.9 | 284.7 | 1.9  |
| 24 | 0.7 | 281.9 | 1.5  |
| 25 | 0.6 | 280.4 | 0.3  |
| 26 | 0.3 | 273.2 | 0.6  |
| 27 | 0.4 | 267.0 | 1.0  |
| 28 | 0.8 | 298.3 | 0.4  |
| 29 | 1.2 | 232.1 | 0.6  |
| 30 | 0.8 | 239.0 | 0.5  |
| 31 | 1.0 | 248.3 | 0.6  |
| 32 | 1.5 | 213.3 | 2.1  |
| 33 | 1.1 | 259.8 | 1.1  |
| 34 | 0.5 | 259.5 | -0.6 |
| 35 | 0.3 | 178.2 | -1.5 |
| 36 | 1.7 | 260.9 | -2.1 |
| 37 | 1.7 | 41.3  | -2.2 |
| 38 | 2.4 | 234.2 | -1.9 |
| 39 | 2.2 | 296.4 | -2.1 |
| 40 | 2.5 | 251.8 | -1.9 |
| 41 | 1.2 | 343.9 | -1.8 |
| 42 | 1.4 | 89.7  | -0.9 |
| 43 | 1.4 | 164.1 | 1.1  |
| 44 | 1.9 | 232.9 | 2.8  |
| 45 | 1.1 | 252.7 | 3.0  |
| 46 | 1.1 | 187.1 | 4.0  |
| 47 | 1.8 | 86.4  | 5.4  |
| 48 | 0.3 | 125.4 | 4.7  |
| 49 | 0.1 | 201.8 | 3.3  |
| 50 | 0.4 | 272.0 | 1.3  |
| 51 | 1.0 | 273.8 | 1.1  |
| 52 | 0.3 | 274.7 | 0.3  |
| 53 | 0.4 | 284.0 | -0.4 |
| 54 | 2.9 | 66.2  | -1.3 |
| 55 | 2.7 | 63.5  | -1.3 |
| 56 | 3.2 | 63.0  | -1.3 |

STOP TIME FEB 11, 1991 HOUR 7 MINUTE 20

RELEASE NUMBER 91011 CONTAINMENT PURGE

STARTING TIME FEB 14, 1991 HOUR 12 MINUTE 53

| TIME HOUR | W510 MPH | WD10 DEG | DT110 DEG C |
|-----------|----------|----------|-------------|
| 12        | 16.2     | 315.0    | -2.3        |
| 13        | 16.0     | 317.9    | -2.5        |
| 14        | 15.8     | 311.8    | -2.6        |
| 15        | 17.5     | 319.9    | 2.7         |
| 16        | 17.8     | 64.4     | 1.1         |
| 17        | 15.0     | 315.0    | -1.4        |
| 18        | 15.0     | 315.0    | -1.4        |
| 19        | 15.0     | 315.0    | -1.4        |
| 20        | 14.4     | 315.0    | -1.4        |
| 21        | 12.0     | 315.0    | -1.4        |
| 22        | 10.8     | 315.0    | -1.4        |
| 23        | 15.6     | 315.0    | -1.4        |
| 24        | 13.2     | 315.0    | -1.4        |
| 1         | 15.0     | 330.0    | -0.8        |
| 2         | 10.2     | 330.0    | -0.8        |
| 3         | 8.4      | 320.0    | -0.8        |
| 4         | 12.0     | 330.0    | -0.8        |
| 5         | 9.0      | 320.0    | -0.8        |
| 6         | 9.6      | 330.0    | -0.8        |
| 7         | 10.8     | 330.0    | -0.8        |
| 8         | 7.2      | 320.0    | -0.8        |
| 9         | 7.8      | 335.0    | -0.8        |
| 10        | 7.8      | 335.0    | -0.8        |
| 11        | 9.0      | 315.0    | -0.8        |
| 12        | 7.8      | 325.0    | -0.8        |
| 13        | 4.8      | 305.0    | -5.2        |
| 14        | 5.4      | 305.0    | -5.3        |
| 15        | 4.2      | 315.0    | -3.8        |
| 16        | 19.2     | 311.0    | 3.0         |
| 17        | 2.3      | 255.6    | -2.1        |
| 18        | 2.8      | 207.4    | -1.7        |
| 19        | 2.1      | 160.5    | -1.0        |
| 20        | 3.3      | 144.6    | -0.4        |
| 21        | 4.2      | 132.6    | -0.4        |
| 22        | 4.6      | 152.2    | -0.9        |
| 23        | 5.2      | 149.8    | -0.9        |
| 24        | 7.6      | 154.5    | -1.1        |
| 1         | 9.5      | 159.3    | -1.2        |
| 2         | 11.0     | 159.9    | -1.4        |
| 3         | 11.4     | 158.2    | -1.4        |
| 4         | 11.7     | 159.9    | -1.5        |
| 5         | 10.4     | 158.9    | -1.5        |
| 6         | 7.3      | 152.5    | -1.4        |
| 7         | 7.7      | 164.0    | -1.2        |
| 8         | 9.5      | 167.6    | -1.4        |
| 9         | 11.0     | 169.7    | -1.6        |
| 10        | 12.7     | 183.7    | -1.7        |
| 11        | 11.4     | 182.6    | -1.8        |
| 12        | 11.4     | 184.4    | -1.9        |

|    |       |      |
|----|-------|------|
| 11 | 184.5 | -2.1 |
| 12 | 192.5 | -2.1 |
| 13 | 190.1 | -2.0 |
| 14 | 185.2 | -1.7 |
| 15 | 164.6 | -1.5 |
| 16 | 136.0 | -0.9 |
| 17 | 150.7 | 0.5  |
| 18 | 162.3 | 0.7  |
| 19 | 181.7 | 0.2  |
| 20 | 176.2 | 0.3  |
| 21 | 216.2 | -0.2 |
| 22 | 209.6 | 2.2  |
| 23 | 238.8 | 3.5  |
| 24 | 292.3 | 3.4  |
| 1  | 291.8 | 2.8  |
| 2  | 290.1 | 2.2  |
| 3  | 294.7 | 0.9  |
| 4  | 296.8 | 0.7  |
| 5  | 344.0 | -0.4 |
| 6  | 2.5   | -0.7 |
| 7  | 11.5  | -1.2 |
| 8  | 7.9   | -1.7 |
| 9  | 19.7  | -2.0 |
| 10 | 42.9  | -2.2 |
| 11 | 54.3  | -2.3 |
| 12 | 71.6  | -2.5 |
| 13 | 81.8  | -1.9 |
| 14 | 73.6  | -1.8 |
| 15 | 59.3  | -1.6 |
| 16 | 39.7  | -0.8 |
| 17 | 328.7 | -0.6 |
| 18 | 71.0  | -1.2 |
| 19 | 63.4  | -1.2 |
| 20 | 73.1  | -1.3 |
| 21 | 68.2  | -1.3 |
| 22 | 66.9  | -1.3 |
| 23 | 354.2 | -0.8 |
| 24 | 348.6 | -0.5 |
| 1  | 335.2 | -0.4 |
| 2  | 315.7 | -0.2 |
| 3  | 26.7  | 0.6  |
| 4  | 9.1   | 1.0  |
| 5  | 329.9 | 0.9  |
| 6  | 322.6 | 1.3  |
| 7  | 343.3 | 1.0  |
| 8  | 2.1   | 1.0  |
| 9  | 1.5   | 0.7  |
| 10 | 321.4 | 0.7  |

STOP TIME FEB 18, 1991 HOUR 9 MINUTE 54

RELEASE NUMBER 91012 CONTAINMENT PURGE

STARTING TIME FEB 21, 1991 HOUR 14 MINUTE 14

| TIME<br>-HOUR | WS10<br>MPH | WD10<br>DEG | DT110<br>DEG C |
|---------------|-------------|-------------|----------------|
| 14            | 2.0         | 320.1       | -2.2           |
| 15            | 2.6         | 353.1       | -2.2           |
| 16            | 3.3         | 357.4       | -2.2           |
| 17            | 2.2         | 352.6       | -1.8           |
| 18            | 0.7         | 350.5       | -1.0           |
| 19            | 2.1         | 297.9       | 0.5            |
| 20            | 2.9         | 303.9       | 0.8            |
| 21            | 1.8         | 297.6       | 1.2            |
| 22            | 1.6         | 300.5       | 0.9            |
| 23            | 2.5         | 307.2       | 0.9            |
| 24            | 1.3         | 275.2       | 0.2            |
| 1             | 0.6         | 252.6       | -0.3           |

STOP TIME FEB 22, 1991 HOUR 0 MINUTE 56

STARTING TIME FEB 22, 1991 HOUR 2 MINUTE 3

| TIME<br>-HOUR | WS10<br>MPH | WD10<br>DEG | DT110<br>DEG C |
|---------------|-------------|-------------|----------------|
| 2             | 0.5         | 281.3       | 0.4            |
| 3             | 1.6         | 289.1       | 0.6            |
| 4             | 0.8         | 288.5       | 0.1            |
| 5             | 1.9         | 306.0       | -0.1           |
| 6             | 1.3         | 291.3       | -0.1           |
| 7             | 1.5         | 327.3       | -0.4           |
| 8             | 1.1         | 303.3       | -0.3           |
| 9             | 1.0         | 304.2       | -0.6           |
| 10            | 2.0         | 351.0       | -1.8           |
| 11            | 2.6         | 30.9        | -2.1           |
| 12            | 2.8         | 29.9        | -2.3           |
| 13            | 3.3         | 53.1        | -2.3           |
| 14            | 3.3         | 48.0        | -2.3           |
| 15            | 2.6         | 335.0       | -2.2           |
| 16            | 3.5         | 50.1        | -2.3           |
| 17            | 3.9         | 75.2        | -1.8           |
| 18            | 3.8         | 73.6        | -1.6           |
| 19            | 5.3         | 90.3        | -1.4           |
| 20            | 5.8         | 106.3       | -1.3           |
| 21            | 6.2         | 106.4       | -1.3           |
| 22            | 6.0         | 103.2       | -1.4           |
| 23            | 5.8         | 107.2       | -1.3           |
| 24            | 8.5         | 114.9       | -1.4           |
| 1             | 9.1         | 118.3       | -1.5           |
| 2             | 11.9        | 115.4       | -1.4           |
| 3             | 11.8        | 116.8       | -1.4           |
| 4             | 10.7        | 120.8       | -1.3           |



|    |      |       |      |
|----|------|-------|------|
| 5  | 12.5 | 124.3 | -1.3 |
| 6  | 12.7 | 129.2 | -1.4 |
| 7  | 14.4 | 128.7 | -1.3 |
| 8  | 13.6 | 308.5 | -1.3 |
| 9  | 12.9 | 142.7 | -1.5 |
| 10 | 13.3 | 166.6 | -1.6 |
| 11 | 13.2 | 172.6 | -1.7 |
| 12 | 13.5 | 184.8 | -1.6 |
| 13 | 11.0 | 217.0 | -2.1 |
| 14 | 7.1  | 272.4 | -2.1 |
| 15 | 11.0 | 298.1 | -2.0 |
| 16 | 12.1 | 309.2 | -1.8 |
| 17 | 7.8  | 305.1 | -1.6 |
| 18 | 11.0 | 314.3 | -1.4 |
| 19 | 8.6  | 314.2 | -1.0 |
| 20 | 8.1  | 309.2 | -1.1 |
| 21 | 8.8  | 314.0 | -1.2 |
| 22 | 7.4  | 318.4 | -1.4 |
| 23 | 7.5  | 319.9 | -1.4 |
| 24 | 6.4  | 325.8 | -1.5 |
| 1  | 6.9  | 320.3 | -1.5 |
| 2  | 6.6  | 324.8 | -1.5 |
| 3  | 4.3  | 325.9 | -1.4 |
| 4  | 3.3  | 312.3 | -1.3 |
| 5  | 2.9  | 309.3 | -1.2 |
| 6  | 2.0  | 301.7 | -1.0 |
| 7  | 2.0  | 325.4 | -1.3 |
| 8  | 0.4  | 320.8 | -1.3 |
| 9  | 3.0  | 344.3 | -1.9 |
| 10 | 3.3  | 348.4 | -2.1 |
| 11 | 3.0  | 20.9  | -2.3 |
| 12 | 3.3  | 23.8  | -2.3 |
| 13 | 3.1  | 348.3 | -2.3 |
| 14 | 3.3  | 334.3 | -2.4 |
| 15 | 3.8  | 332.8 | -2.1 |
| 16 | 2.3  | 342.1 | -2.1 |
| 17 | 2.1  | 326.2 | -1.8 |
| 18 | 1.3  | 341.9 | -1.6 |
| 19 | 1.2  | 353.6 | -1.6 |
| 20 | 2.1  | 8.7   | -1.6 |
| 21 | 2.2  | 35.3  | -1.6 |
| 22 | 2.2  | 14.9  | -1.7 |
| 23 | 3.0  | 349.2 | -1.6 |
| 24 | 2.3  | 343.0 | -1.6 |
| 1  | 2.9  | 339.1 | -1.6 |
| 2  | 3.6  | 349.5 | -1.7 |
| 3  | 3.4  | 9.2   | -1.8 |
| 4  | 2.5  | 18.1  | -1.7 |
| 5  | 2.5  | 11.1  | -1.7 |
| 6  | 2.3  | 10.4  | -1.7 |
| 7  | 2.3  | 12.1  | -1.7 |
| 8  | 2.0  | 27.8  | -1.7 |

STOP TIME FEB 25, 1991 HOUR 7 MINUTE 48

RELEASE NUMBER 91013 CONTAINMENT PURGE

STARTING TIME FEB 26, 1991 HOUR 14 MINUTE 15

| TIME<br>-HOUR | WS10<br>MPH | WD10<br>DEG | DT110<br>DEG C |
|---------------|-------------|-------------|----------------|
| 14            | 7.6         | 183.2       | -2.1           |
| 15            | 6.8         | 195.7       | -2.1           |
| 16            | 6.4         | 199.8       | -1.9           |
| 17            | 3.8         | 166.7       | -1.7           |
| 18            | 1.1         | 240.9       | -0.5           |
| 19            | 1.2         | 123.8       | 2.1            |
| 20            | 1.5         | 117.1       | 3.4            |
| 21            | 2.7         | 117.1       | 4.1            |
| 22            | 1.1         | 263.0       | 5.1            |
| 23            | 1.6         | 252.1       | 5.1            |
| 24            | 0.9         | 227.5       | 5.5            |
| 1             | 1.9         | 117.8       | 5.1            |
| 2             | 10.2        | 164.9       | -0.6           |
| 3             | 9.1         | 179.5       | -0.8           |
| 4             | 6.5         | 164.4       | -0.8           |
| 5             | 4.3         | 108.9       | -0.9           |
| 6             | 3.5         | 115.2       | -0.7           |
| 7             | 2.0         | 102.4       | -0.7           |
| 8             | 3.4         | 117.5       | -1.0           |
| 9             | 0.8         | 242.6       | -0.2           |
| 10            | 1.1         | 259.6       | 0.4            |
| 11            | 0.4         | 211.0       | 0.4            |
| 12            | 0.4         | 318.7       | -0.1           |
| 13            | 0.9         | 213.2       | 0.6            |
| 14            | 0.8         | 320.2       | 0.2            |
| 15            | 2.3         | 304.5       | -0.8           |
| 16            | 6.2         | 313.8       | -1.4           |
| 17            | 11.3        | 311.7       | -2.1           |
| 18            | 12.2        | 315.9       | -2.1           |
| 19            | 12.5        | 314.9       | -2.0           |
| 20            | 13.2        | 316.0       | -2.2           |
| 21            | 12.6        | 318.0       | -2.1           |
| 22            | 12.0        | 318.9       | -1.9           |
| 23            | 10.8        | 320.3       | -1.8           |
| 24            | 9.6         | 320.1       | -1.8           |
| 1             | 9.0         | 320.3       | -1.7           |
| 2             | 9.6         | 319.9       | -1.6           |
| 3             | 10.2        | 317.6       | -1.7           |
| 4             | 10.8        | 319.0       | -1.6           |
| 5             | 10.2        | 322.4       | -1.6           |
| 6             | 9.9         | 325.4       | -1.6           |
| 7             | 9.5         | 323.7       | -1.6           |
| 8             | 8.4         | 327.7       | -1.6           |
| 9             | 7.2         | 330.1       | -1.7           |
| 10            | 6.0         | 332.2       | -1.7           |
| 11            | 6.9         | 330.7       | -1.8           |
| 12            | 7.8         | 331.0       | -1.9           |
| 13            | 8.4         | 331.0       | -2.0           |
| 14            | 8.1         | 332.4       | -2.0           |

|    |      |       |      |
|----|------|-------|------|
| 15 | 8.1  | 332.5 | -1.9 |
| 16 | 7.8  | 330.9 | -1.8 |
| 17 | 6.6  | 331.6 | -1.7 |
| 18 | 5.4  | 328.0 | -1.6 |
| 19 | 4.8  | 335.9 | -1.3 |
| 20 | 4.5  | 339.5 | -1.1 |
| 21 | 4.5  | 341.4 | -1.2 |
| 22 | 4.2  | 339.1 | -1.3 |
| 23 | 4.2  | 341.8 | -1.4 |
| 24 | 4.2  | 344.7 | -1.4 |
| 1  | 3.0  | 324.5 | -1.4 |
| 2  | 2.9  | 322.9 | -1.3 |
| 3  | 2.7  | 329.4 | -1.4 |
| 4  | 1.2  | 347.1 | -1.7 |
| 5  | 1.7  | 339.8 | -1.7 |
| 6  | 2.2  | 335.4 | -1.6 |
| 7  | 2.7  | 3.3   | -1.7 |
| 8  | 2.0  | 21.2  | -1.8 |
| 9  | 2.0  | 35.1  | -1.8 |
| 10 | 0.3  | 266.2 | -1.7 |
| 11 | 2.0  | 292.0 | -1.9 |
| 12 | 2.0  | 330.4 | -2.0 |
| 13 | 2.0  | 280.5 | -2.0 |
| 14 | 2.0  | 358.7 | -2.3 |
| 15 | 1.3  | 41.9  | -2.2 |
| 16 | 1.9  | 46.1  | -2.3 |
| 17 | 3.2  | 94.9  | -1.9 |
| 18 | 3.8  | 112.2 | -1.7 |
| 19 | 1.4  | 15.5  | -1.1 |
| 20 | 0.8  | 172.2 | -0.5 |
| 21 | 2.1  | 118.3 | -0.1 |
| 22 | 2.2  | 103.4 | -0.3 |
| 23 | 3.7  | 114.1 | -0.3 |
| 24 | 3.5  | 105.6 | -0.8 |
| 1  | 4.7  | 105.3 | -1.0 |
| 2  | 4.9  | 112.1 | -0.7 |
| 3  | 6.6  | 139.3 | -0.8 |
| 4  | 7.0  | 168.3 | -1.0 |
| 5  | 8.4  | 167.0 | -1.0 |
| 6  | 4.6  | 179.2 | -1.1 |
| 7  | 10.7 | 159.4 | -0.8 |
| 8  | 11.8 | 168.4 | -0.9 |
| 9  | 7.6  | 159.3 | -1.4 |

STOP TIME MAR 4, 1991 HOUR 8 MINUTE 13

RELEASE NUMBER 91014 CONTAINMENT PURGE

STARTING TIME MAR 7, 1991 HOUR 13 MINUTE 27

| TIME HOUR | WS10 MPH | WD10 DEG | DT110 DEG C |
|-----------|----------|----------|-------------|
| 3         | 5.5      | 187.8    | -2.0        |
| 4         | 7.1      | 178.0    | -2.1        |
| 15        | 7.5      | 185.4    | -2.0        |
| 16        | 8.0      | 196.3    | -1.8        |
| 17        | 7.9      | 179.5    | -1.8        |
| 18        | 6.4      | 161.7    | -1.4        |
| 19        | 5.2      | 148.2    | -0.5        |
| 20        | 6.4      | 161.0    | 0.6         |
| 21        | 7.9      | 175.4    | 1.4         |
| 22        | 8.4      | 175.8    | 1.7         |
| 23        | 9.4      | 177.2    | 1.6         |
| 24        | 9.9      | 179.6    | 1.6         |
| 1         | 9.0      | 184.7    | 0.6         |
| 2         | 10.1     | 196.7    | 0.7         |
| 3         | 10.8     | 208.1    | 0.8         |
| 4         | 10.9     | 210.1    | 0.3         |
| 5         | 12.1     | 200.8    | 0.3         |
| 6         | 12.0     | 200.4    | -0.2        |
| 7         | 12.7     | 198.9    | -0.2        |
| 8         | 12.9     | 193.4    | -0.3        |
| 9         | 15.5     | 201.9    | -1.2        |

STOP TIME MAR 8, 1991 HOUR 8 MINUTE 45

STARTING TIME MAR 8, 1991 HOUR 10 MINUTE 35

| TIME HOUR | WS10 MPH | WD10 DEG | DT110 DEG C |
|-----------|----------|----------|-------------|
| 10        | 12.0     | 206.7    | -1.6        |
| 11        | 7.4      | 218.1    | -1.8        |
| 12        | 5.8      | 264.2    | -2.3        |
| 13        | 7.1      | 302.6    | -2.4        |
| 14        | 8.9      | 292.5    | -2.2        |
| 15        | 8.6      | 302.8    | -2.1        |
| 16        | 8.7      | 306.6    | -1.6        |
| 17        | 10.1     | 304.1    | -1.8        |
| 18        | 7.9      | 307.4    | -1.3        |
| 19        | 5.0      | 307.3    | -0.2        |
| 20        | 1.4      | 282.1    | 1.1         |
| 21        | 3.8      | 285.0    | 0.6         |
| 22        | 3.7      | 289.4    | -0.1        |
| 23        | 5.2      | 285.1    | -0.2        |
| 24        | 5.1      | 292.7    | -0.3        |
| 1         | 6.6      | 293.3    | -0.5        |
| 2         | 5.7      | 284.3    | -0.5        |
| 3         | 3.8      | 277.9    | -0.4        |

|    |      |       |      |
|----|------|-------|------|
| 4  | 4.0  | 278.3 | -0.3 |
| 5  | 4.7  | 288.1 | -0.5 |
| 6  | 5.0  | 285.7 | -0.3 |
| 7  | 3.2  | 279.0 | -0.3 |
| 8  | 3.4  | 279.9 | -0.5 |
| 9  | 3.9  | 285.5 | -1.7 |
| 10 | 3.2  | 300.6 | -2.1 |
| 11 | 3.3  | 273.6 | -2.2 |
| 12 | 3.8  | 260.8 | -2.3 |
| 13 | 3.9  | 261.4 | -2.3 |
| 14 | 4.4  | 264.1 | -2.3 |
| 15 | 4.7  | 257.6 | -2.3 |
| 16 | 5.6  | 249.7 | -2.1 |
| 17 | 6.3  | 235.3 | -1.9 |
| 18 | 2.8  | 218.7 | -1.5 |
| 19 | 2.5  | 147.7 | -1.5 |
| 20 | 3.6  | 130.6 | 2.5  |
| 21 | 7.4  | 118.8 | 1.6  |
| 22 | 7.3  | 129.6 | 1.4  |
| 23 | 5.9  | 135.6 | 1.9  |
| 24 | 5.2  | 144.8 | 2.3  |
| 1  | 6.0  | 159.0 | 2.4  |
| 2  | 6.4  | 163.3 | 2.2  |
| 3  | 7.5  | 163.0 | 2.0  |
| 4  | 8.3  | 179.9 | 1.6  |
| 5  | 11.1 | 188.3 | 2.0  |
| 6  | 12.4 | 186.9 | 1.2  |
| 7  | 10.4 | 184.5 | 0.8  |
| 8  | 11.6 | 172.1 | 0.2  |
| 9  | 13.8 | 173.0 | -0.6 |
| 10 | 11.5 | 165.5 | -1.2 |
| 11 | 9.9  | 156.2 | -1.6 |
| 12 | 11.7 | 168.6 | -1.7 |
| 13 | 15.0 | 171.8 | -1.7 |
| 14 | 16.8 | 173.6 | -1.8 |
| 15 | 17.5 | 177.9 | -1.8 |
| 16 | 16.3 | 169.9 | -1.7 |
| 17 | 16.5 | 166.2 | -1.5 |
| 18 | 12.7 | 157.6 | -1.3 |
| 19 | 12.0 | 144.0 | -0.9 |
| 20 | 10.1 | 141.1 | -0.7 |
| 21 | 11.7 | 156.6 | -0.6 |
| 22 | 13.2 | 156.6 | -0.7 |
| 23 | 14.1 | 158.0 | -0.8 |
| 24 | 10.9 | 149.1 | -0.8 |
| 1  | 11.3 | 161.5 | -0.6 |
| 2  | 11.1 | 158.6 | -0.6 |
| 3  | 9.2  | 155.9 | -0.6 |
| 4  | 5.2  | 134.7 | -0.7 |
| 5  | 4.1  | 117.5 | -0.2 |
| 6  | 2.3  | 83.3  | 1.2  |
| 7  | 1.3  | 108.0 | 2.1  |

STOP TIME MAR 11, 1991 HOUR 6 MINUTE 17

RELEASE NUMBER 91015 CONTAINMENT PURGE

STARTING TIME MAR 14, 1991 HOUR 21 MINUTE 12

| TIME<br>-HOUR | WS10<br>MPH | WD10<br>DEG | DT110<br>DEG C |
|---------------|-------------|-------------|----------------|
| 1             | 0.9         | 66.7        | -0.4           |
| 2             | 1.3         | 327.2       | -0.7           |
| 3             | 1.9         | 223.4       | -0.5           |
| 4             | 1.3         | 118.8       | 0.5            |
| 5             | 1.3         | 272.9       | 0.3            |
| 6             | 1.2         | 271.7       | 1.0            |
| 7             | 2.6         | 256.7       | 1.5            |
| 8             | 1.4         | 247.8       | 2.0            |
| 9             | 0.8         | 273.0       | 2.4            |
| 10            | 1.6         | 303.2       | 2.5            |
| 11            | 1.4         | 291.2       | 2.2            |
| 12            | 0.1         | 152.7       | 1.4            |
| 13            | 2.0         | 96.9        | -0.1           |
| 14            | 5.4         | 101.8       | -1.0           |
| 15            | 6.2         | 119.1       | -1.5           |
| 16            | 5.2         | 116.8       | -1.6           |
| 17            | 5.7         | 110.3       | -1.6           |
| 18            | 5.9         | 110.1       | -1.6           |
| 19            | 5.4         | 116.1       | -1.5           |
| 20            | 4.9         | 112.7       | -1.5           |
| 21            | 3.3         | 118.3       | -1.4           |
| 22            | 0.4         | 185.7       | -1.3           |
| 23            | 1.0         | 257.2       | -0.8           |
| 24            | 0.6         | 275.0       | -0.8           |
| 25            | 0.6         | 305.8       | -1.0           |
| 26            | 1.0         | 61.2        | -1.3           |
| 27            | 0.3         | 101.6       | -1.4           |
| 28            | 1.6         | 116.3       | -1.3           |
| 29            | 1.9         | 113.0       | -1.3           |
| 30            | 1.6         | 117.9       | -1.4           |
| 31            | 1.8         | 118.7       | -1.3           |
| 32            | 3.2         | 121.0       | -1.4           |
| 33            | 1.8         | 76.4        | -1.4           |
| 34            | 0.8         | 136.4       | -1.4           |
| 35            | 1.4         | 132.8       | -1.3           |
| 36            | 2.9         | 150.2       | -1.5           |
| 37            | 2.9         | 158.4       | -1.6           |
| 38            | 5.5         | 177.9       | -1.8           |
| 39            | 5.8         | 188.5       | -1.8           |
| 40            | 3.4         | 185.2       | -1.7           |
| 41            | 4.4         | 167.3       | -1.6           |
| 42            | 5.5         | 134.6       | -1.8           |
| 43            | 6.6         | 122.8       | -1.8           |
| 44            | 8.5         | 114.8       | -1.7           |
| 45            | 7.4         | 113.4       | -1.6           |
| 46            | 4.6         | 106.3       | -1.4           |
| 47            | 1.7         | 100.3       | -1.1           |
| 48            | 0.4         | 64.7        | -1.1           |
| 49            | 0.2         | 172.8       | -1.0           |

|    |     |       |      |
|----|-----|-------|------|
| 22 | 1.9 | 220.8 | -1.1 |
| 23 | 3.2 | 83.5  | -1.5 |
| 24 | 3.4 | 80.5  | -1.5 |
| 1  | 1.4 | 308.4 | -1.4 |
| 2  | 0.6 | 0.1   | -1.2 |
| 3  | 1.6 | 13.0  | -1.2 |
| 4  | 1.8 | 7.7   | -1.3 |
| 5  | 1.7 | 345.1 | -1.5 |
| 6  | 2.8 | 355.8 | -1.9 |
| 7  | 3.7 | 359.5 | -1.9 |
| 8  | 3.8 | 356.9 | -2.1 |
| 9  | 3.6 | 353.6 | -2.1 |
| 10 | 4.8 | 347.5 | -2.2 |
| 11 | 5.1 | 341.6 | -2.1 |
| 12 | 4.8 | 336.3 | -1.9 |
| 13 | 4.2 | 320.5 | -2.1 |
| 14 | 6.8 | 322.6 | -2.2 |
| 15 | 6.0 | 331.6 | -2.0 |
| 16 | 6.2 | 332.4 | -1.9 |
| 17 | 6.2 | 324.4 | -1.7 |
| 18 | 6.8 | 318.9 | -1.5 |
| 19 | 4.4 | 309.3 | -1.2 |
| 20 | 3.2 | 307.6 | -0.8 |
| 21 | 1.4 | 292.5 | -0.6 |
| 22 | 1.0 | 275.8 | -0.6 |
| 23 | 1.5 | 281.5 | -0.7 |
| 24 | 1.0 | 285.9 | -0.6 |
| 1  | 0.5 | 270.6 | -0.4 |
| 2  | 0.8 | 275.6 | -0.3 |
| 3  | 2.9 | 243.2 | -0.5 |
| 4  | 1.9 | 257.8 | -1.6 |
| 5  | 1.3 | 229.5 | -1.6 |
| 6  | 3.9 | 119.7 | -1.0 |

STOP TIME MAR 18, 1991 HOUR 5 MINUTE 55

RELEASE NUMBER 91016 CONTAINMENT PURGE

STARTING TIME MAR 21, 1991 HOUR 16 MINUTE 47

| TIME<br>-HOUR | WS10<br>MPH | WD10<br>DEG | DT110<br>DEG C |
|---------------|-------------|-------------|----------------|
| 16            | 2.0         | 294.4       | -2.0           |
| 17            | 2.9         | 7.1         | -1.9           |
| 18            | 2.8         | 30.1        | -1.7           |
| 19            | 0.6         | 9.2         | -0.7           |
| 20            | 3.5         | 343.5       | -0.9           |
| 21            | 3.9         | 347.1       | -1.2           |
| 22            | 3.1         | 355.6       | -1.3           |
| 23            | 5.0         | 2.6         | -1.5           |
| 24            | 3.2         | 5.3         | -1.5           |
| 1             | 2.4         | 11.9        | -1.4           |
| 2             | 3.3         | 72.0        | -1.4           |
| 3             | 1.5         | 42.9        | -1.0           |

STOP TIME MAR 22, 1991 HOUR 2 MINUTE 30

STARTING TIME MAR 22, 1991 HOUR 3 MINUTE 32

| TIME<br>-HOUR | WS10<br>MPH | WD10<br>DEG | DT110<br>DEG C |
|---------------|-------------|-------------|----------------|
| 2             | 1.5         | 42.9        | -1.0           |
| 4             | 3.4         | 81.4        | -1.3           |
| 5             | 1.4         | 50.8        | -1.1           |
| 6             | 2.1         | 342.8       | -1.0           |
| 7             | 1.4         | 302.6       | -0.9           |
| 8             | 3.5         | 335.5       | -1.6           |
| 9             | 4.8         | 347.2       | -1.8           |
| 10            | 3.9         | 0.2         | -1.9           |
| 11            | 5.0         | 10.2        | -2.0           |
| 12            | 4.0         | 18.8        | -1.9           |
| 13            | 4.8         | 30.0        | -1.9           |
| 14            | 4.8         | 341.8       | -1.8           |
| 15            | 4.6         | 337.0       | -1.7           |
| 16            | 5.9         | 326.4       | -2.1           |
| 17            | 6.9         | 345.2       | -2.0           |
| 18            | 3.9         | 287.2       | -1.7           |
| 19            | 5.0         | 258.9       | -1.6           |
| 20            | 7.4         | 294.7       | -1.9           |
| 21            | 9.5         | 304.2       | -1.8           |
| 22            | 10.1        | 289.9       | -1.6           |
| 23            | 10.4        | 281.4       | -1.7           |
| 24            | 11.6        | 279.8       | -1.4           |
| 1             | 10.4        | 278.1       | -1.4           |
| 2             | 10.6        | 278.2       | -1.4           |
| 3             | 9.6         | 278.4       | -1.4           |
| 4             | 9.6         | 274.1       | -1.4           |
| 5             | 9.7         | 273.5       | -1.2           |



|    |      |       |      |
|----|------|-------|------|
| 6  | 9.8  | 272.8 | -1.3 |
| 7  | 10.2 | 268.3 | -1.2 |
| 8  | 9.7  | 266.8 | -1.3 |
| 9  | 11.4 | 271.0 | -1.4 |
| 10 | 13.0 | 281.5 | -1.4 |
| 11 | 13.6 | 280.2 | -1.3 |
| 12 | 14.1 | 285.9 | -1.5 |
| 13 | 14.6 | 285.2 | -1.6 |
| 14 | 13.2 | 283.2 | -1.7 |
| 15 | 14.0 | 286.2 | -1.8 |
| 16 | 13.4 | 286.2 | -1.7 |
| 17 | 13.0 | 284.7 | -1.5 |
| 18 | 11.6 | 288.8 | -1.2 |
| 19 | 9.7  | 285.4 | -0.8 |
| 20 | 6.4  | 276.7 | -0.2 |

STOP TIME MAR 23, 1991 HOUR 19 MINUTE 10

RELEASE NUMBER 91017      CONTAINMENT PURGE

STARTING TIME      MAR 24, 1991      HOUR 13 MINUTE 44

| TIME<br>HOUR | WS10<br>MPH | WD10<br>DEG | DT110<br>DEG C |
|--------------|-------------|-------------|----------------|
| -            | 3.5         | 185.1       | -2.0           |
| -            | 4.9         | 163.1       | -2.0           |
| 15           | 6.9         | 146.5       | -2.0           |
| 16           | 7.1         | 141.0       | -2.0           |
| 17           | 8.1         | 147.7       | -1.8           |
| 18           | 7.4         | 129.6       | -1.5           |
| 19           | 5.5         | 113.3       | -0.4           |
| 20           | 3.3         | 113.1       | 0.3            |
| 21           | 2.4         | 46.3        | 0.7            |
| 22           | 0.6         | 151.8       | 1.5            |
| 23           | 3.7         | 124.6       | 1.0            |
| 24           | 0.5         | 190.7       | 0.8            |
| 1            | 2.1         | 315.3       | 1.7            |
| 2            | 1.2         | 319.1       | 2.3            |
| 3            | 0.          | 291.6       | 2.3            |
| 4            | 1.8         | 272.3       | 2.6            |
| 5            | 1.5         | 330.8       | 2.3            |
| 6            | 0.7         | 236.6       | 1.9            |
| 7            | 3.2         | 98.9        | 1.6            |
| 8            | 4.0         | 110.7       | 0.2            |
| 9            | 6.2         | 112.6       | -0.3           |
| 10           | 10.2        | 122.1       | -0.8           |
| 11           | 11.9        | 136.7       | -1.6           |
| 12           | 15.0        | 150.1       | -1.7           |
| 13           | 15.5        | 153.6       | -1.8           |
| 14           | 16.3        | 163.5       | -1.9           |
| 15           | 14.5        | 168.1       | -1.9           |
| 16           | 14.6        | 186.2       | -1.7           |

STOP TIME      MAR 25, 1991      HOUR 15 MINUTE 50

STARTING TIME      MAR 25, 1991      HOUR 16 MINUTE 35

| TIME<br>HOUR | WS10<br>MPH | WD10<br>DEG | DT110<br>DEG C |
|--------------|-------------|-------------|----------------|
| 16           | 14.6        | 186.2       | -1.7           |
| 17           | 11.6        | 198.2       | -1.5           |
| 18           | 7.7         | 202.2       | -1.2           |
| 19           | 3.6         | 214.9       | -0.2           |
| 20           | 4.4         | 203.8       | 0.2            |
| 21           | 6.5         | 181.3       | 0.1            |
| 22           | 7.3         | 172.1       | 0.1            |
| 23           | 8.6         | 151.2       | 0.5            |
| 24           | 9.1         | 162.1       | -0.2           |
| 1            | 10.5        | 162.6       | -0.6           |
| 2            | 10.3        | 158.3       | -0.9           |

|    |      |       |      |
|----|------|-------|------|
| 3  | 10.9 | 168.4 | -1.0 |
| 4  | 9.6  | 165.0 | -1.0 |
| 5  | 10.4 | 170.1 | -0.9 |
| 6  | 8.5  | 163.8 | -1.0 |
| 7  | 4.4  | 135.9 | -1.0 |
| 8  | 8.8  | 175.7 | -1.4 |
| 9  | 10.5 | 183.8 | -1.7 |
|    | 12.9 | 189.8 | -1.9 |
| 11 | 13.4 | 192.6 | -2.0 |
| 12 | 16.6 | 198.7 | -2.1 |
| 13 | 16.4 | 204.2 | -2.1 |
| 14 | 16.7 | 209.6 | -2.1 |

STOP TIME MAR 26, 1991 HOUR 13 MINUTE 5

RELEASE NUMBER 91017 CONTAINMENT PURGE

STARTING TIME MAR 26, 1991 HOUR 14 MINUTE 4

| TIME<br>HOUR | WS10<br>MPH | WD10<br>DEG | DT110<br>DEG C |
|--------------|-------------|-------------|----------------|
| 4            | 16.7        | 209.6       | -2.1           |
|              | 13.0        | 217.9       | -2.0           |
| 16           | 11.6        | 218.6       | -1.8           |
| 17           | 11.9        | 209.9       | -1.6           |
| 18           | 8.0         | 204.7       | -1.3           |
| 19           | 5.5         | 212.9       | -0.5           |
| 20           | 3.3         | 197.8       | 1.0            |
| 21           | 3.6         | 117.9       | 2.6            |
| 22           | 2.1         | 203.6       | 4.2            |
| 23           | 5.5         | 297.9       | 1.7            |
| 24           | 6.5         | 328.7       | -1.4           |
| 1            | 4.9         | 339.2       | -2.0           |
| 2            | 2.5         | 232.4       | -2.2           |
| 3            | 4.2         | 338.1       | -2.3           |
| 4            | 3.5         | 326.4       | -1.9           |
| 5            | 5.8         | 328.4       | -2.0           |
| 6            | 6.3         | 336.2       | -2.0           |
| 7            | 9.2         | 349.2       | -2.0           |
| 8            | 6.6         | 336.3       | -2.3           |
| 9            | 7.6         | 331.9       | -2.3           |
| 10           | 13.0        | 319.2       | -2.1           |
| 11           | 10.0        | 318.0       | -2.0           |
| 12           | 7.5         | 318.0       | -1.9           |
| 13           | 6.0         | 303.8       | -2.0           |
| 14           | 4.8         | 310.5       | -1.9           |
| 15           | 14.6        | 311.4       | -1.8           |
| 16           | 13.7        | 298.0       | -1.7           |
| 17           | 10.6        | 292.7       | -1.6           |
| 18           | 9.4         | 283.8       | -1.4           |
| 19           | 4.9         | 262.1       | -1.3           |
| 20           | 5.6         | 248.3       | -0.9           |
| 21           | 11.0        | 232.8       | -0.2           |
| 22           | 9.1         | 226.8       | -0.2           |
| 23           | 7.2         | 233.2       | -0.1           |

STOP TIME MAR 27, 1991 HOUR 22 MINUTE 5

RELEASE NUMBER 91018 CONTAINMENT PURGE  
 STARTING TIME MAR 28, 1991 HOUR 18 MINUTE 55

| TIME<br>HOUR | WS10<br>MPH | WD10<br>DEG | DT110<br>DEG C |
|--------------|-------------|-------------|----------------|
| 18           | 7.2         | 349.5       | -1.9           |
| 19           | 5.0         | 351.9       | -1.2           |
| 20           | 2.4         | 3.8         | -1.1           |
| 21           | 1.1         | 31.7        | -0.6           |
| 22           | 0.5         | 34.4        | -0.3           |
| 23           | 1.1         | 45.7        | -0.5           |
| 24           | 2.8         | 42.1        | -1.1           |
| 1            | 2.5         | 38.9        | -1.3           |
| 2            | 2.2         | 43.7        | -1.3           |
| 3            | 1.2         | 11.9        | -1.2           |
| 4            | 1.6         | 349.6       | -1.1           |
| 5            | 1.9         | 329.5       | -1.2           |
| 6            | 1.7         | 323.0       | -1.1           |
| 7            | 0.4         | 290.3       | -0.9           |
| 8            | 0.6         | 326.6       | -1.5           |
| 9            | 1.6         | 46.2        | -1.9           |
| 10           | 3.2         | 40.8        | -1.9           |
| 11           | 4.4         | 19.7        | -1.9           |
| 12           | 5.2         | 14.4        | -2.4           |
| 13           | 6.4         | 359.8       | -2.5           |
| 14           | 6.7         | 335.8       | -2.4           |
| 15           | 7.6         | 340.5       | -2.3           |
| 16           | 7.5         | 335.4       | -2.2           |
| 17           | 7.6         | 338.4       | -2.1           |
| 18           | 7.1         | 340.4       | -1.8           |
| 19           | 4.5         | 338.8       | -1.3           |
| 20           | 1.4         | 340.3       | -1.0           |
| 21           | 0.3         | 325.5       | -0.9           |
| 22           | 0.3         | 330.2       | -0.9           |
| 23           | 0.2         | 350.3       | -0.9           |
| 24           | 0.2         | 341.3       | -0.9           |
| 1            | 0.8         | 287.3       | -0.5           |
| 2            | 0.1         | 244.2       | -0.2           |
| 3            | 0.4         | 209.2       | 0.1            |
| 4            | 0.5         | 185.2       | 0.6            |
| 5            | 0.9         | 129.5       | 0.7            |
| 6            | 1.6         | 152.4       | 0.7            |
| 7            | 1.5         | 116.9       | -0.5           |
| 8            | 3.5         | 151.3       | -1.2           |
| 9            | 6.9         | 170.6       | -1.8           |
| 10           | 8.6         | 195.3       | -1.9           |
| 11           | 10.5        | 207.1       | -2.0           |
| 12           | 11.9        | 222.9       | -2.1           |
| 13           | 12.9        | 211.9       | -2.1           |
| 14           | 12.4        | 217.2       | -1.9           |
| 15           | 13.7        | 215.9       | -1.9           |
| 16           | 14.6        | 217.5       | -1.8           |
| 17           | 12.8        | 224.1       | -1.6           |
| 18           | 12.5        | 216.3       | -1.5           |

|    |      |       |      |
|----|------|-------|------|
| 19 | 8.5  | 205.8 | -1.2 |
| 20 | 6.2  | 211.7 | -0.6 |
| 21 | 6.6  | 189.3 | -1.6 |
| 22 | 10.8 | 209.7 | 0.4  |
| 23 | 11.5 | 225.1 | 0.9  |
| 24 | 7.7  | 250.0 | 0.5  |
|    | 3.7  | 275.3 | 0.6  |
|    | 2.9  | 281.7 | 0.6  |
| 3  | 2.5  | 300.6 | 1.0  |
| 4  | 2.1  | 292.7 | 1.2  |
| 5  | 2.6  | 294.6 | 1.0  |
| 6  | 2.4  | 286.8 | 1.0  |
| 7  | 2.9  | 282.5 | 0.4  |
| 8  | 2.6  | 290.1 | -0.6 |
| 9  | 3.8  | 271.0 | -1.8 |
| 10 | 6.2  | 261.4 | -2.1 |
| 11 | 7.7  | 272.3 | -2.2 |
| 12 | 9.1  | 293.8 | -2.4 |
| 13 | 9.2  | 300.2 | -2.6 |
| 14 | 9.1  | 295.0 | -2.4 |
| 15 | 7.7  | 290.5 | -2.2 |
| 16 | 7.3  | 283.1 | -2.0 |
| 17 | 5.4  | 273.4 | -1.9 |
| 18 | 3.2  | 261.5 | -1.6 |
| 19 | 1.1  | 301.0 | -0.6 |
| 20 | 0.9  | 265.7 | 1.4  |
| 21 | 1.0  | 297.6 | 2.0  |
| 22 | 1.3  | 282.9 | 1.5  |
| 23 | 1.8  | 265.6 | 1.3  |
| 24 | 0.9  | 186.1 | 1.5  |
| 1  | 2.5  | 121.6 | 2.3  |
| 2  | 0.8  | 131.6 | 1.7  |
| 3  | 0.2  | 211.2 | 2.4  |
| 4  | 1.6  | 248.8 | 2.9  |
| 5  | 2.5  | 248.3 | 3.4  |
| 6  | 1.3  | 318.4 | 3.6  |
| 7  | 0.2  | 278.5 | 2.7  |
| 8  | 0.4  | 275.4 | 0.5  |

STOP TIME APR 1, 1991 HOUR 7 MINUTE 45

RELEASE NUMBER 91719 CONTAINMENT PURGE

STARTING TIME APR 4, 1991 HOUR 13 MINUTE 20

| TIME HOUR | WS10 MPH | WD10 DEG | DT110 DEG C |
|-----------|----------|----------|-------------|
| 18        | 4.1      | 223.8    | -2.3        |
| 19        | 4.0      | 222.2    | -2.2        |
| 20        | 3.1      | 247.4    | -2.2        |

STOP TIME APR 4, 1991 HOUR 14 MINUTE 20

STARTING TIME APR 4, 1991 HOUR 18 MINUTE 0

| TIME HOUR | WS10 MPH | WD10 DEG | DT110 DEG C |
|-----------|----------|----------|-------------|
| 18        | 1.2      | 240.8    | -1.6        |
| 19        | 1.7      | 254.6    | -0.7        |
| 20        | 0.7      | 144.6    | 0.9         |
| 21        | 0.7      | 191.7    | 2.4         |
| 22        | 1.5      | 115.9    | 3.0         |
| 23        | 3.4      | 117.8    | 3.1         |
| 24        | 2.3      | 111.4    | 3.6         |
| 1         | 2.3      | 116.9    | 5.2         |
| 2         | 5.8      | 191.5    | 4.7         |
| 3         | 9.0      | 188.1    | 4.1         |
| 4         | 10.3     | 195.8    | 0.9         |
| 5         | 13.5     | 205.8    | 0.9         |
| 6         | 14.2     | 212.7    | 0.3         |
| 7         | 13.9     | 202.5    | 0.2         |
| 8         | 14.7     | 201.0    | -0.8        |
| 9         | 13.4     | 198.0    | -1.6        |
| 10        | 15.9     | 199.8    | -1.8        |
| 11        | 14.8     | 200.2    | -2.1        |
| 12        | 14.6     | 193.6    | -2.2        |
| 13        | 15.9     | 195.8    | -2.1        |
| 14        | 16.4     | 200.5    | -2.1        |
| 15        | 15.1     | 206.2    | -2.1        |
| 16        | 16.3     | 197.9    | -2.0        |
| 17        | 15.7     | 193.7    | -1.8        |
| 18        | 12.6     | 186.7    | -1.5        |
| 19        | 9.7      | 173.7    | -0.9        |
| 20        | 10.3     | 170.3    | -0.5        |
| 21        | 10.0     | 174.0    | -0.6        |
| 22        | 11.8     | 180.8    | -0.8        |
| 23        | 12.9     | 187.9    | -1.0        |
| 24        | 12.9     | 191.7    | -1.0        |
| 1         | 12.6     | 195.0    | -0.9        |
| 2         | 14.0     | 196.8    | -0.8        |
| 3         | 15.1     | 195.1    | -0.9        |
| 4         | 15.3     | 194.1    | -0.9        |
| 5         | 15.7     | 193.7    | -0.7        |

|    |      |       |      |
|----|------|-------|------|
| 6  | 16.7 | 192.5 | -0.7 |
| 7  | 17.8 | 196.0 | -0.8 |
| 8  | 21.1 | 196.6 | -1.3 |
| 9  | 21.8 | 196.9 | -1.7 |
| 10 | 20.1 | 201.6 | -2.0 |
| 11 | 16.1 | 200.6 | -2.1 |
| 12 | 13.9 | 200.1 | -2.1 |
| 13 | 20.0 | 200.6 | -2.2 |
| 14 | 20.0 | 196.0 | -2.1 |
| 15 | 19.7 | 196.1 | -2.1 |
| 16 | 17.7 | 189.4 | -2.0 |
| 17 | 16.5 | 184.6 | -1.8 |
| 18 | 14.0 | 182.8 | -1.5 |
| 19 | 12.3 | 176.4 | -1.1 |
| 20 | 12.7 | 166.8 | -0.8 |
| 21 | 12.6 | 163.6 | -0.8 |
| 22 | 12.8 | 165.6 | -0.9 |
| 23 | 13.4 | 168.6 | -0.9 |
| 24 | 14.8 | 173.2 | -1.0 |
| 1  | 11.5 | 172.0 | -0.9 |
| 2  | 11.6 | 169.0 | -0.9 |
| 3  | 12.8 | 175.5 | -1.0 |
| 4  | 13.2 | 170.2 | -0.9 |
| 5  | 13.8 | 171.0 | -0.9 |
| 6  | 12.8 | 170.0 | -1.0 |
| 7  | 11.9 | 168.8 | -1.2 |
| 8  | 13.5 | 166.6 | -1.6 |
| 9  | 14.8 | 172.9 | -1.8 |
| 10 | 14.3 | 171.7 | -2.0 |
| 11 | 13.5 | 172.6 | -2.2 |
| 12 | 13.0 | 162.1 | -2.2 |
| 13 | 15.1 | 167.8 | -2.2 |
| 14 | 14.5 | 180.0 | -2.2 |
| 15 | 15.6 | 187.9 | -2.1 |
| 16 | 16.0 | 185.4 | -2.0 |
| 17 | 14.6 | 180.6 | -1.9 |
| 18 | 13.9 | 180.5 | -1.6 |
| 19 | 10.1 | 169.0 | -1.1 |
| 20 | 7.8  | 159.6 | -0.8 |
| 21 | 7.3  | 162.8 | -0.8 |
| 22 | 7.2  | 176.7 | -1.1 |
| 23 | 7.8  | 166.1 | -1.1 |
| 24 | 9.8  | 172.8 | -1.1 |
| 1  | 8.7  | 177.9 | -1.0 |
| 2  | 7.9  | 186.4 | -1.0 |
| 3  | 5.8  | 188.6 | -1.0 |
| 4  | 5.0  | 167.3 | -1.1 |
| 5  | 4.3  | 157.5 | -1.1 |
| 6  | 3.7  | 248.5 | -0.8 |
| 7  | 4.4  | 280.7 | -1.2 |

STOP TIME    APR    8, 1991    HOUR    6 MINUTE    25



RELEASE NUMBER 91020 CONTAINMENT PURGE

STARTING TIME APR 11, 1991 HOUR 16 MINUTE 15

| TIME<br>HOUR | WS10<br>MPH | WD10<br>DEG | DT110<br>DEG C |
|--------------|-------------|-------------|----------------|
| 15           | 20.0        | 101.1       | -1.2           |
| 16           | 21.7        | 102.0       | -1.2           |
| 17           | 20.2        | 100.6       | -1.3           |
| 18           | 18.6        | 97.7        | -1.5           |
| 19           | 17.6        | 97.7        | -1.6           |
| 20           | 18.9        | 99.9        | -1.6           |
| 21           | 21.2        | 101.2       | -1.3           |
| 22           | 15.2        | 104.0       | -1.3           |
| 23           | 14.0        | 92.4        | -1.6           |
| 24           | 14.0        | 89.8        | -1.6           |
| 1            | 7.4         | 308.1       | -1.5           |
| 2            | 6.1         | 23.3        | -2.1           |
| 3            | 11.3        | 39.8        | -1.7           |
| 4            | 12.6        | 76.5        | -1.3           |
| 5            | 10.4        | 82.9        | -1.6           |
| 6            | 12.4        | 91.2        | -1.8           |
| 7            | 14.4        | 95.1        | -1.8           |
| 8            | 15.0        | 98.0        | -1.9           |
| 9            | 13.0        | 97.4        | -1.9           |
| 10           | 11.9        | 99.7        | -1.8           |
| 11           | 11.4        | 95.2        | -1.8           |
| 12           | 12.0        | 100.5       | -1.7           |
| 13           | 9.3         | 101.8       | -1.7           |
| 14           | 11.1        | 103.5       | -1.6           |
| 15           | 9.9         | 97.1        | -1.5           |
| 16           | 6.9         | 83.0        | -1.4           |
| 17           | 8.6         | 88.6        | -1.5           |
| 18           | 10.0        | 90.1        | -1.4           |
| 19           | 7.4         | 81.9        | -1.2           |
| 20           | 12.4        | 95.0        | -1.2           |
| 21           | 11.6        | 95.5        | -1.3           |
| 22           | 9.4         | 49.0        | -1.6           |
| 23           | 1.6         | 210.2       | -1.9           |
| 24           | 3.1         | 283.3       | -2.0           |
| 1            | 5.9         | 59.6        | -2.1           |
| 2            | 4.8         | 10.1        | -2.0           |
| 3            | 10.9        | 103.7       | -2.4           |
| 4            | 14.6        | 98.3        | -2.1           |
| 5            | 5.4         | 288.0       | -1.6           |
| 6            | 5.4         | 94.6        | -1.6           |
| 7            | 4.5         | 73.8        | -1.8           |
| 8            | 3.7         | 192.7       | -1.9           |
| 9            | 4.7         | 47.0        | -1.9           |
| 10           | 4.7         | 58.1        | -1.9           |
| 11           | 6.6         | 78.2        | -1.9           |
| 12           | 4.4         | 71.1        | -1.9           |
| 13           | 0.6         | 146.5       | -1.7           |
| 14           | 1.2         | 358.3       | -1.7           |
| 15           | 3.9         | 320.8       | -2.0           |
| 16           |             |             |                |

|    |      |       |      |
|----|------|-------|------|
| 17 | 4.9  | 325.2 | -1.9 |
| 18 | 5.5  | 321.4 | -1.7 |
| 19 | 5.2  | 333.8 | -1.7 |
| 20 | 4.1  | 348.8 | -1.7 |
| 21 | 3.7  | 331.5 | -1.6 |
| 22 | 4.5  | 314.1 | -1.9 |
| 23 | 5.1  | 328.6 | -2.4 |
| 24 | 4.2  | 318.2 | -2.2 |
| 1  | 0.3  | 327.0 | 0.1  |
| 2  | 0.3  | 308.6 | -2.3 |
| 3  | 5.9  | 324.9 | -2.3 |
| 4  | 4.0  | 336.4 | -2.1 |
| 5  | 4.9  | 286.7 | -1.9 |
| 6  | 6.0  | 292.8 | -1.8 |
| 7  | 4.5  | 313.3 | -1.5 |
| 8  | 1.2  | 298.1 | -1.4 |
| 9  | 2.8  | 304.1 | -1.7 |
| 10 | 4.9  | 310.6 | -1.7 |
| 11 | 3.7  | 313.2 | -1.7 |
| 12 | 2.7  | 295.3 | -1.8 |
| 13 | 2.7  | 318.8 | -2.1 |
| 14 | 2.8  | 329.6 | -2.4 |
| 15 | 2.0  | 252.6 | -2.1 |
| 16 | 0.9  | 274.3 | -2.1 |
| 17 | 1.5  | 320.4 | -2.0 |
| 18 | 1.5  | 320.4 | -2.2 |
| 19 | 2.0  | 242.2 | -1.6 |
| 20 | 1.0  | 254.1 | -1.5 |
| 21 | 0.6  | 192.3 | -0.2 |
| 22 | 0.6  | 161.0 | 1.5  |
| 23 | 0.8  | 110.7 | 2.2  |
| 1  | 4.0  | 249.8 | 1.8  |
| 2  | 7.2  | 168.7 | 1.6  |
| 3  | 7.1  | 172.0 | 1.8  |
| 4  | 8.5  | 174.6 | 2.2  |
| 5  | 9.5  | 172.0 | 2.2  |
| 6  | 9.3  | 178.9 | 0.9  |
| 7  | 11.1 | 204.5 | -0.4 |
| 8  | 6.7  | 248.2 | -0.7 |
| 9  | 3.8  | 280.2 | -1.1 |
| 9  | 5.3  | 286.8 | -1.6 |

STOP TIME APR 15, 1991 HOUR 8 MINUTE 47

RELEASE NUMBER 91021      CONTAINMENT PURGE

STARTING TIME      APR 18, 1991      HOUR 8 MINUTE 12

| TIME<br>HOUR | WS10<br>MPH | WD10<br>DEG | DT110<br>DEG C |
|--------------|-------------|-------------|----------------|
| 8            | 1.9         | 29.2        | -1.5           |
| 9            | 2.2         | 21.2        | -1.8           |
| 10           | 4.6         | 52.0        | -1.9           |
| 11           | 6.1         | 44.8        | -1.8           |
| 12           | 7.2         | 42.3        | -1.9           |
| 13           | 7.1         | 55.9        | -1.7           |

STOP TIME      APR 18, 1991      HOUR 12 MINUTE 51

STARTING TIME      APR 18, 1991      HOUR 14 MINUTE 31

| TIME<br>HOUR | WS10<br>MPH | WD10<br>DEG | DT110<br>DEG C |
|--------------|-------------|-------------|----------------|
| 14           | 7.3         | 26.0        | -1.7           |
| 15           | 6.1         | 44.4        | -1.5           |
| 16           | 6.1         | 36.4        | -1.4           |
| 17           | 4.7         | 17.2        | -1.3           |
| 18           | 3.7         | 27.7        | -1.2           |
| 19           | 4.0         | 21.0        | -1.2           |
| 20           | 5.1         | 36.4        | -1.2           |
| 21           | 4.4         | 16.1        | -1.1           |
| 22           | 4.1         | 8.1         | -1.0           |
| 23           | 4.7         | 9.8         | -1.1           |
| 24           | 4.5         | 2.9         | -1.2           |
| 1            | 5.4         | 358.7       | -1.2           |
| 2            | 4.4         | 354.1       | -1.2           |

STOP TIME      APR 19, 1991      HOUR 1 MINUTE 5

## RELEASE NUMBER 91021      CONTAINMENT PURGE

STARTING TIME      APR 19, 1991      HOUR 2 MINUTE 13

| TIME<br>HOUR | WS10<br>MPH | WD10<br>DEG | DT110<br>DEG C |
|--------------|-------------|-------------|----------------|
| 1            | 4.4         | 354.1       | -1.2           |
| 2            | 4.0         | 7.7         | -1.2           |
| 3            | 3.9         | 349.5       | -1.2           |
| 4            | 3.1         | 332.1       | -1.2           |
| 5            | 1.3         | 344.4       | -1.3           |
| 6            | 3.8         | 349.0       | -1.3           |
| 7            | 3.5         | 339.4       | -1.3           |
| 8            | 0.7         | 353.5       | -1.4           |
| 9            | 4.4         | 5.4         | -1.4           |
| 10           | 5.1         | 11.3        | -1.5           |
| 11           | 6.1         | 15.4        | -1.7           |
| 12           | 4.6         | 6.2         | -1.5           |
| 13           | 5.2         | 356.6       | -1.4           |
| 14           | 5.2         | 350.1       | -1.4           |
| 15           | 5.1         | 340.5       | -1.4           |
| 16           | 4.3         | 352.5       | -1.3           |
| 17           | 3.4         | 341.1       | 0.1            |
| 18           | 3.5         | 342.5       | 0.8            |
| 19           | 3.5         | 326.5       | 1.5            |
| 20           | 2.4         | 344.3       | 1.5            |
| 21           | 3.5         | 323.2       | 1.9            |
| 22           | 5.4         | 329.1       | 1.9            |
| 23           | 4.6         | 331.5       | 1.6            |
| 24           | 3.9         | 328.7       | -1.6           |
| 1            | 5.4         | 314.2       | -1.8           |
| 2            | 4.0         | 317.5       | -1.6           |
| 3            | 4.4         | 312.5       | -1.3           |
| 4            | 2.8         | 305.4       | -1.0           |
| 5            | 0.1         | 254.5       | -0.7           |
| 6            | 0.4         | 263.6       | -0.5           |
| 7            | 0.4         | 207.3       | 0.1            |
| 8            | 0.9         | 285.0       | -1.0           |
| 9            | 1.6         | 281.2       | -1.7           |
| 10           | 1.0         | 335.2       | -2.0           |
| 11           | 3.4         | 227.7       | -1.8           |
| 12           | 3.3         | 257.6       | -1.8           |
| 13           | 7.2         | 215.0       | -2.0           |
| 14           | 6.0         | 205.0       | -2.0           |
| 15           | 4.8         | 225.0       | -2.0           |
| 16           | 2.4         | 265.0       | -1.8           |
| 17           | 6.0         | 295.0       | -1.5           |
| 18           | 6.0         | 325.0       | -1.0           |
| 19           | 4.8         | 315.0       | -0.8           |
| 20           | 3.6         | 335.0       | 0.5            |
| 21           | 3.0         | 265.0       | 1.0            |
| 22           | 2.4         | 175.0       | 1.2            |
| 23           | 2.4         | 175.0       | 1.5            |
| 24           | 0.6         | 180.1       | 1.1            |
| 1            | 2.8         | 118.4       | 1.3            |
| 2            |             |             |                |

|    |       |      |
|----|-------|------|
| 3  | 131.0 | 2.2  |
| 4  | 266.6 | 2.2  |
| 5  | 156.2 | 2.5  |
| 6  | 134.8 | 2.4  |
| 7  | 164.7 | 3.1  |
| 8  | 22.2  | 3.2  |
| 9  | 245.9 | 1.4  |
| 10 | 116.7 | -0.9 |
| 11 | 108.8 | -1.7 |
| 12 | 158.1 | -1.8 |
| 13 | 109.2 | -1.6 |
| 14 | 105.4 | -1.6 |
| 15 | 221.9 | -2.0 |
| 16 | 73.9  | -1.8 |
| 17 | 147.4 | -1.5 |
| 18 | 124.4 | -1.5 |
| 19 | 137.4 | -1.4 |
| 20 | 186.7 | -1.2 |
| 21 | 197.8 | -1.0 |
| 22 | 225.6 | -1.0 |
| 23 | 242.1 | -1.1 |
| 24 | 249.7 | -1.1 |
| 1  | 260.4 | -2.0 |
| 2  | 265.3 | -2.0 |
| 3  | 271.2 | -2.0 |
| 4  | 279.8 | -1.8 |
| 5  | 72.3  | -1.5 |
| 6  | 269.4 | -1.0 |
| 7  | 240.9 | -0.8 |

STOP TIME APR 22.1991 HOUR 6 MINUTE 7

RELEASE NUMBER 91022 CONTAINMENT PURGE

STARTING TIME APR 25, 1991 HOUR 16 MINUTE 57

TIME WS10 WD10 DT110  
 HOUR MPH DEG DEG C

|    |      |       |      |
|----|------|-------|------|
| 15 | 15.5 | 145.3 | -1.7 |
| 16 | 14.9 | 135.7 | -1.6 |
| 18 | 16.0 | 145.2 | -1.5 |
| 19 | 14.6 | 149.5 | -1.3 |
| 20 | 13.3 | 137.0 | -1.2 |
| 21 | 12.8 | 138.7 | -1.1 |
| 22 | 13.1 | 137.4 | -1.1 |
| 23 | 15.0 | 128.3 | -1.1 |
| 24 | 15.7 | 126.0 | -1.0 |
| 1  | 15.2 | 117.4 | -0.9 |
| 2  | 13.3 | 132.1 | -1.0 |
| 3  | 15.5 | 128.2 | -1.1 |
| 4  | 13.5 | 123.6 | -1.2 |
| 5  | 14.8 | 114.4 | -1.3 |
| 6  | 11.5 | 113.2 | -1.6 |
| 7  | 11.0 | 97.2  | -1.6 |
| 8  | 11.2 | 112.7 | -1.4 |
| 9  | 10.7 | 113.9 | -1.3 |
| 10 | 9.4  | 107.7 | -1.4 |
| 11 | 10.8 | 113.8 | -1.3 |
| 12 | 11.8 | 113.0 | -1.3 |
| 13 | 13.2 | 109.8 | -1.6 |
| 14 | 12.6 | 110.0 | -1.5 |
| 15 | 15.5 | 139.5 | -1.3 |
| 16 | 21.6 | 160.6 | -1.3 |
| 17 | 18.4 | 165.3 | -1.0 |
| 18 | 15.4 | 153.1 | -0.8 |
| 19 | 9.   | 202.9 | -0.1 |
| 20 | 7.9  | 7.3   | 1.3  |
| 21 | 8.1  | 267.4 | -0.4 |
| 22 | 11.8 | 121.0 | -0.5 |
| 23 | 3.7  | 190.2 | -0.2 |
| 24 | 1.7  | 345.3 | 0.1  |
| 1  | 1.8  | 174.5 | 0.7  |
| 2  | 4.4  | 140.1 | 0.1  |

STOP TIME APR 27, 1991 HOUR 1 MINUTE 5

RELEASE NUMBER 91023 CONTAINMENT PURGE  
 STARTING TIME APR 27, 1991 HOUR 13 MINUTE 37

| TIME<br>HOUR | WS10<br>MPH | WD10<br>DEG | DT110<br>DEG C |
|--------------|-------------|-------------|----------------|
| 13           | 10.4        | 233.3       | -1.9           |
| 14           | 10.3        | 232.3       | -1.2           |
| 15           | 8.5         | 211.2       | -1.8           |
| 16           | 9.7         | 193.3       | -1.6           |
| 17           | 12.2        | 166.8       | -1.4           |
| 18           | 12.1        | 160.3       | -1.3           |
| 19           | 12.5        | 166.2       | -1.1           |
| 20           | 6.5         | 209.5       | -0.9           |
| 21           | 5.7         | 195.4       | -0.6           |
| 22           | 7.6         | 174.2       | 0.5            |
| 23           | 8.8         | 175.7       | 0.8            |
| 24           | 8.0         | 171.8       | 1.2            |
| 1            | 9.4         | 158.6       | 1.9            |
| 2            | 9.5         | 159.9       | 1.8            |
| 3            | 8.2         | 149.0       | 2.5            |
| 4            | 9.2         | 156.1       | 2.6            |
| 5            | 11.0        | 163.3       | 3.3            |
| 6            | 11.1        | 174.6       | 3.8            |
| 7            | 6.9         | 147.9       | 3.1            |
| 8            | 3.5         | 73.0        | 1.7            |
| 9            | 4.7         | 88.0        | 0.4            |
| 10           | 5.6         | 102.3       | -0.9           |
| 11           | 6.7         | 108.2       | -1.5           |
| 12           | 5.8         | 109.1       | -1.6           |
| 13           | 5.7         | 96.7        | -1.8           |
| 14           | 9.6         | 117.9       | -1.8           |
| 15           | 11.0        | 121.2       | -1.7           |
| 16           | 7.7         | 96.5        | -1.6           |
| 17           | 8.0         | 86.4        | -1.4           |
| 18           | 11.9        | 94.2        | -1.2           |
| 19           | 13.6        | 91.4        | -0.9           |
| 20           | 13.2        | 106.5       | -0.9           |
| 21           | 6.9         | 93.1        | -1.0           |
| 22           | 8.0         | 98.3        | -0.7           |
| 23           | 7.2         | 102.0       | -0.7           |
| 24           | 7.7         | 107.0       | -0.3           |
| 1            | 8.5         | 112.9       | -0.3           |
| 2            | 7.3         | 123.7       | -0.5           |
| 3            | 6.4         | 119.9       | -0.5           |
| 4            | 5.9         | 121.7       | -0.5           |
| 5            | 6.1         | 134.2       | -1.8           |
| 6            | 8.5         | 160.8       | -1.2           |
| 7            | 7.3         | 175.2       | -1.0           |
| 8            | 4.1         | 285.6       | -1.1           |
| 9            | 5.1         | 303.1       | -1.5           |

STOP TIME APR 29, 1991 HOUR 8 MINUTE 24

RELEASE NUMBER 91024      CONTAINMENT PURGE

STARTING TIME      MAY    3, 1991      HOUR    1    MINUTE    13

| TIME<br>HOUR | WS10<br>MPH | WD10<br>DEG | DT110<br>DEG C |
|--------------|-------------|-------------|----------------|
| 1            | 10.3        | 91.0        | -1.4           |
| 2            | 11.3        | 97.9        | -1.5           |
| 3            | 8.6         | 91.6        | -1.4           |
| 4            | 6.4         | 83.3        | -1.3           |
| 5            | 6.5         | 85.7        | -1.3           |
| 6            | 8.8         | 85.8        | -1.9           |
| 7            | 11.1        | 97.1        | -2.2           |
| 8            | 12.4        | 102.1       | -2.2           |
| 9            | 12.1        | 103.8       | -2.2           |
| 10           | 11.2        | 101.2       | -2.3           |
| 11           | 11.5        | 104.1       | -2.1           |
| 12           | 9.0         | 105.5       | -2.0           |
| 13           | 9.7         | 114.3       | -1.9           |
| 14           | 9.9         | 116.5       | -2.1           |
| 15           | 10.7        | 117.5       | -2.4           |
| 16           | 10.6        | 121.8       | -2.5           |
| 17           | 10.5        | 126.6       | -2.6           |
| 18           | 7.9         | 268.6       | -2.3           |
| 19           | 4.6         | 217.0       | -2.1           |
| 20           | 2.3         | 296.3       | -2.2           |
| 21           | 3.2         | 310.7       | -2.5           |
| 22           | 3.2         | 318.8       | -2.7           |
| 23           | 3.7         | 311.7       | -2.3           |
| 24           | 5.2         | 315.1       | -2.4           |
| 1            | 6.3         | 317.3       | -2.3           |
| 2            | 7.4         | 320.0       | -2.0           |
| 3            | 5.7         | 321.5       | -1.8           |
| 4            | 6.3         | 322.1       | -1.8           |
| 5            | 4.2         | 325.2       | -1.9           |
| 6            | 4.8         | 326.1       | -1.9           |
| 7            | 5.7         | 322.0       | -1.9           |
| 8            | 6.1         | 315.9       | -2.0           |
| 9            | 6.2         | 322.2       | -2.1           |
| 10           | 5.6         | 334.3       | -2.1           |
| 11           | 6.2         | 347.4       | -2.2           |
| 12           | 6.5         | 351.8       | -2.3           |
| 13           | 4.7         | 334.8       | -2.1           |
| 14           | 5.6         | 316.2       | -2.0           |
| 15           | 5.7         | 333.5       | -1.9           |
| 16           | 7.2         | 345.8       | -2.2           |
| 17           | 7.2         | 352.0       | -2.2           |
| 18           | 6.2         | 343.8       | -1.9           |
| 19           | 6.6         | 330.0       | -1.8           |
| 20           | 6.5         | 336.0       | -1.7           |
| 21           | 8.3         | 337.7       | -1.6           |
| 22           | 6.6         | 330.1       | -1.8           |
| 23           | 6.4         | 337.1       | -2.3           |
| 24           | 6.8         | 337.9       | -2.2           |
| 1            | 6.8         | 330.8       | -2.0           |



|    |      |       |      |
|----|------|-------|------|
| 3  | 8.6  | 337.5 | -2.1 |
| 3  | 7.5  | 328.9 | -2.0 |
| 4  | 7.6  | 321.0 | -2.3 |
| 5  | 9.1  | 319.1 | -2.4 |
| 6  | 9.9  | 323.9 | -2.1 |
| 7  | 10.6 | 320.8 | -2.2 |
| 8  | 11.7 | 324.0 | -2.3 |
| 9  | 9.0  | 322.9 | -2.3 |
| 10 | 9.1  | 320.2 | -2.0 |
| 11 | 12.7 | 319.2 | -1.7 |
| 12 | 11.6 | 322.2 | -2.0 |
| 13 | 11.8 | 322.3 | -1.9 |
| 14 | 11.5 | 310.6 | -1.8 |
| 15 | 10.5 | 308.0 | -1.8 |
| 16 | 10.4 | 309.5 | -1.8 |
| 17 | 9.6  | 308.8 | -1.8 |
| 18 | 7.6  | 305.6 | -1.6 |
| 19 | 5.1  | 301.2 | -1.5 |
| 20 | 6.1  | 304.5 | -1.4 |
| 21 | 4.6  | 294.7 | -1.4 |
| 22 | 3.4  | 297.4 | -1.3 |
| 23 | 2.8  | 287.3 | -1.3 |
| 24 | 3.1  | 292.6 | -1.3 |
| 1  | 2.9  | 290.4 | -1.3 |
| 2  | 3.0  | 289.3 | -1.3 |
| 3  | 1.6  | 279.2 | -1.3 |
| 4  | 2.9  | 291.0 | -1.3 |
| 5  | 4.3  | 305.4 | -1.3 |
| 6  | 2.3  | 292.4 | -1.3 |
| 7  | 1.5  | 281.7 | -1.4 |
| 8  | 2.4  | 276.2 | -1.5 |
| 9  | 11.0 | 279.4 | -1.6 |
| 10 | 4.6  | 292.7 | -1.8 |

STOP TIME    MAY    6, 1991    HOUR 9 MINUTE 3

RELEASE NUMBER 91025      CONTAINMENT PURGE

STARTING TIME      MAY 9, 1991      HOUR 16 MINUTE 52

| TIME<br>HOUR | WS10<br>MPH | WD10<br>DEG | DT110<br>DEG C |
|--------------|-------------|-------------|----------------|
| 14           | 16.2        | 140.8       | -2.2           |
| 15           | 15.4        | 149.5       | -2.0           |
| 16           | 14.7        | 141.4       | -1.9           |
| 18           | 14.5        | 126.6       | -1.7           |
| 20           | 12.6        | 128.4       | -1.4           |
| 21           | 11.9        | 126.3       | -1.0           |
| 22           | 10.6        | 124.9       | -0.8           |
| 23           | 11.2        | 126.6       | -0.8           |
| 24           | 11.2        | 130.3       | -0.9           |
| 1            | 10.8        | 127.2       | -1.0           |
| 2            | 9.8         | 125.4       | -1.0           |
| 3            | 6.5         | 131.2       | -1.2           |
| 4            | 8.0         | 138.0       | -1.4           |
| 5            | 7.5         | 127.4       | -1.3           |
| 6            | 7.3         | 123.0       | -1.3           |
| 7            | 6.7         | 133.5       | -1.4           |
| 8            | 7.6         | 148.0       | -1.5           |
| 9            | 17.7        | 295.8       | -1.5           |
| 10           | 19.8        | 351.0       | -1.6           |
| 11           | 23.6        | 350.9       | -1.7           |
| 12           | 22.3        | 336.5       | -1.7           |
| 13           | 23.1        | 350.8       | -1.7           |
| 14           | 22.9        | 349.0       | -1.8           |
| 15           | 24.9        | 359.2       | -1.8           |
| 16           | 18.6        | 254.8       | -1.8           |
| 17           | 13.6        | 140.2       | -1.8           |
| 18           | 13.0        | 143.3       | -1.6           |
| 19           | 12.5        | 143.7       | -1.5           |
| 20           | 10.4        | 146.3       | -1.2           |
| 21           | 8.9         | 137.4       | -0.9           |
| 22           | 9.6         | 138.9       | -1.0           |
| 23           | 8.7         | 144.5       | -0.8           |
| 24           | 6.7         | 140.9       | -0.7           |
| 1            | 7.4         | 141.2       | -0.8           |
| 2            | 6.6         | 147.0       | -0.8           |
| 3            | 7.2         | 149.4       | -1.0           |
| 4            | 7.0         | 153.6       | -1.2           |
| 5            | 7.0         | 138.6       | -1.1           |
| 6            | 5.6         | 123.8       | -0.7           |
| 7            | 5.3         | 148.6       | -0.9           |
| 8            | 7.6         | 131.5       | -1.3           |
| 9            | 8.5         | 128.7       | -1.6           |
| 10           | 7.2         | 159.5       | -1.6           |
| 11           | 7.4         | 166.3       | -1.7           |
| 12           | 8.3         | 142.1       | -1.9           |
| 13           | 11.0        | 161.1       | -2.0           |
| 14           | 10.2        | 157.8       | -1.9           |
| 15           | 10.2        | 151.3       | -2.0           |
| 16           | 9.3         | 147.7       | -1.9           |

|    |      |       |      |
|----|------|-------|------|
| 17 | 8.9  | 151.0 | -1.9 |
| 18 | 9.7  | 161.5 | -1.6 |
| 19 | 8.4  | 152.0 | -1.5 |
| 20 | 5.6  | 143.3 | -0.9 |
| 21 | 4.4  | 150.2 | 0.2  |
| 22 | 6.5  | 162.1 | 0.1  |
| 23 | 6.0  | 174.2 | 0.1  |
| 24 | 5.4  | 166.5 | 0.1  |
| 1  | 4.5  | 140.1 | 0.3  |
| 2  | 4.9  | 133.1 | 0.9  |
| 3  | 4.3  | 129.4 | 0.6  |
| 4  | 4.6  | 132.4 | 0.5  |
| 5  | 6.2  | 151.5 | -0.1 |
| 6  | 7.0  | 159.5 | -0.6 |
| 7  | 7.3  | 155.7 | -0.6 |
| 8  | 5.9  | 141.9 | -0.6 |
| 9  | 7.4  | 134.3 | -1.1 |
| 10 | 9.6  | 125.7 | -1.6 |
| 11 | 11.6 | 130.6 | -1.8 |
| 12 | 12.9 | 144.3 | -1.9 |
| 13 | 13.3 | 149.0 | -1.9 |
| 14 | 14.7 | 149.1 | -2.0 |
| 15 | 13.0 | 163.4 | -1.9 |
| 16 | 12.3 | 159.2 | -1.7 |
| 17 | 11.7 | 151.1 | -1.6 |
| 18 | 12.7 | 152.8 | -1.6 |
| 19 | 12.8 | 147.4 | -1.4 |
| 20 | 10.3 | 146.7 | -1.0 |
| 21 | 8.9  | 153.4 | -0.7 |
| 22 | 8.0  | 156.1 | -0.5 |
| 23 | 9.9  | 167.6 | -0.4 |
| 24 | 9.2  | 268.5 | -0.8 |
| 1  | 5.4  | 313.8 | -0.5 |
| 2  | 3.5  | 248.8 | 0.5  |
| 3  | 2.7  | 300.4 | 0.8  |
| 4  | 2.8  | 223.8 | 0.3  |
| 5  | 2.3  | 312.0 | 0.7  |
| 6  | 1.1  | 272.2 | 1.1  |
| 7  | 1.0  | 192.5 | 1.5  |
| 8  | 1.1  | 304.0 | 1.1  |

STOP TIME    MAY 13, 1991    HOUR 7 MINUTE 30

RELEASE NUMBER 91026      CONTAINMENT PURGE

STARTING TIME      MAY 16, 1991      HOUR 16 MINUTE 35

| TIME<br>HOUR | WS10<br>MPH | WD10<br>DEG | DT110<br>DEG C |
|--------------|-------------|-------------|----------------|
| 16           | 2.1         | 341.8       | -1.8           |
| 17           | 3.9         | 336.1       | -1.8           |
| 18           | 2.6         | 7.4         | -1.5           |
| 19           | 2.9         | 67.5        | -0.9           |
| 20           | 5.2         | 74.5        | -0.6           |
| 21           | 15.2        | 242.0       | -1.3           |
| 22           | 4.1         | 339.2       | -1.2           |
| 23           | 2.4         | 329.1       | -1.0           |
| 24           | 2.5         | 167.0       | -1.2           |
| 1            | 8.5         | 105.1       | -1.6           |
| 2            | 7.8         | 169.1       | -1.6           |
| 3            | 9.4         | 126.8       | -1.1           |

STOP TIME      MAY 17, 1991      HOUR 2 MINUTE 18

STARTING TIME      MAY 17, 1991      HOUR 2 MINUTE 50

| TIME<br>HOUR | WS10<br>MPH | WD10<br>DEG | DT110<br>DEG C |
|--------------|-------------|-------------|----------------|
| 2            | 7.8         | 169.1       | -1.6           |
| 3            | 9.4         | 126.8       | -1.1           |
| 4            | 4.7         | 133.6       | -1.0           |
| 5            | 2.1         | 289.5       | -0.9           |
| 6            | 2.0         | 287.1       | -0.7           |
| 7            | 1.8         | 292.2       | -0.9           |
| 8            | 2.1         | 353.0       | -1.4           |
| 9            | 4.3         | 43.4        | -1.7           |
| 10           | 5.3         | 91.5        | -1.7           |
| 11           | 6.0         | 111.2       | -1.6           |
| 12           | 6.4         | 356.3       | -1.5           |
| 13           | 3.8         | 207.1       | -1.6           |
| 14           | 6.9         | 143.0       | -1.6           |
| 15           | 7.9         | 154.1       | -1.5           |
| 16           | 9.9         | 146.6       | -1.5           |
| 17           | 13.1        | 200.6       | -1.6           |
| 18           | 8.9         | 226.3       | -1.5           |
| 19           | 3.1         | 323.6       | -1.5           |
| 20           | 4.5         | 345.8       | -1.5           |
| 21           | 3.1         | 341.3       | -1.3           |
| 22           | 3.9         | 309.7       | -1.3           |
| 23           | 2.6         | 251.7       | -1.3           |
| 24           | 3.4         | 177.1       | -1.3           |
| 1            | 3.6         | 352.4       | -1.2           |
| 2            | 5.1         | 6.3         | -1.5           |
| 3            | 4.4         | 27.6        | -1.5           |
| 4            | 3.8         | 6.1         | -1.7           |

|    |     |       |      |
|----|-----|-------|------|
| 5  | 4.2 | 5.3   | -1.6 |
| 6  | 3.8 | 9.7   | -1.7 |
| 7  | 4.6 | 29.6  | -1.6 |
| 8  | 5.5 | 50.6  | -1.6 |
| 9  | 5.0 | 55.6  | -1.6 |
| 10 | 5.3 | 9.0   | -1.6 |
| 11 | 5.7 | 9.4   | -1.6 |
| 12 | 5.4 | 359.4 | -1.7 |
| 13 | 5.9 | 6.8   | -1.9 |
| 14 | 7.0 | 3.3   | -1.9 |
| 15 | 6.6 | 11.2  | -1.8 |
| 16 | 6.2 | 9.9   | -1.7 |
| 17 | 5.3 | 46.5  | -1.7 |
| 18 | 6.7 | 65.8  | -1.6 |
| 19 | 5.6 | 60.2  | -1.5 |
| 20 | 5.1 | 55.3  | -1.5 |
| 21 | 5.1 | 62.7  | -1.4 |
| 22 | 5.4 | 59.7  | -1.4 |
| 23 | 6.4 | 81.8  | -1.4 |
| 24 | 5.1 | 65.4  | -1.5 |
| 1  | 5.0 | 71.3  | -1.5 |
| 2  | 4.6 | 69.1  | -1.5 |
| 3  | 4.6 | 78.2  | -1.5 |
| 4  | 5.2 | 78.8  | -1.5 |
| 5  | 4.7 | 72.4  | -1.4 |
| 6  | 3.8 | 62.4  | -1.4 |
| 7  | 3.8 | 60.9  | -1.5 |
| 8  | 4.0 | 55.7  | -1.5 |
| 9  | 5.3 | 65.8  | -1.5 |
| 10 | 5.6 | 71.5  | -1.6 |
| 11 | 5.5 | 72.7  | -1.6 |
| 12 | 5.5 | 87.7  | -1.6 |
| 13 | 5.0 | 81.9  | -1.7 |
| 14 | 5.4 | 94.0  | -1.6 |
| 15 | 5.0 | 83.2  | -1.6 |
| 16 | 5.0 | 83.0  | -1.6 |
| 17 | 5.4 | 97.0  | -1.5 |
| 18 | 3.4 | 330.7 | -1.5 |
| 19 | 1.4 | 181.4 | -1.4 |
| 20 | 1.3 | 318.7 | -1.4 |
| 21 | 1.2 | 348.9 | -1.1 |
| 22 | 4.9 | 75.1  | -1.2 |
| 23 | 7.9 | 114.9 | -1.4 |
| 24 | 8.5 | 115.0 | -1.4 |
| 1  | 7.5 | 122.0 | -1.3 |
| 2  | 4.0 | 70.4  | -1.2 |
| 3  | 1.2 | 163.0 | -1.2 |
| 4  | 1.5 | 18.9  | -1.1 |
| 5  | 2.2 | 47.1  | -1.0 |
| 6  | 1.7 | 29.9  | -1.1 |
| 7  | 1.1 | 309.1 | -0.8 |

STOP TIME    MAY 20, 1991    HOUR 6 MINUTE 42

RELEASE NUMBER 91027 CONTAINMENT PURGE

STARTING TIME MAY 21, 1991 HOUR 9 MINUTE 1

WS10 WD10 DT110  
MPH DEG DEG C

4.2 134.9 -1.3  
6.2 146.7 -1.5  
6.6 154.8 -1.6

STOP TIME MAY 21, 1991 HOUR 10 MINUTE 44

TIME  
HOUR

11

RELEASE NUMBER 91028      CONTAINMENT PURGE

STARTING TIME      MAY 21, 1991      HOUR 20 MINUTE 4

| TIME<br>HOUR | WS10<br>MPH | WD10<br>DEG | DT110<br>DEG C |
|--------------|-------------|-------------|----------------|
| 1            | 8.0         | 150.4       | -1.0           |
| 2            | 7.9         | 149.4       | -0.6           |
| 3            | 6.2         | 140.6       | -0.1           |
| 4            | 5.4         | 144.7       | -0.7           |
| 5            | 9.8         | 156.0       | -0.9           |
| 6            | 8.6         | 155.2       | -1.0           |
| 7            | 9.0         | 155.1       | -1.0           |
| 8            | 9.6         | 152.4       | -1.1           |
| 9            | 9.8         | 157.8       | -1.0           |
| 10           | 9.4         | 151.0       | -1.1           |
| 11           | 10.9        | 170.3       | -1.2           |
| 12           | 9.2         | 159.8       | -1.3           |
| 13           | 9.1         | 160.3       | -1.4           |
| 14           | 10.1        | 173.0       | -1.5           |
| 15           | 9.7         | 167.8       | -1.5           |

STOP TIME      MAY 22, 1991      HOUR 9 MINUTE 47

RELEASE NUMBER 91029      CONTAINMENT PURGE

STARTING TIME      MAY 25, 1991      HOUR 0 MINUTE 18

| TIME<br>HOUR | WS10<br>MPH | WD10<br>DEG | DT110<br>DEG C |
|--------------|-------------|-------------|----------------|
|              | 1.4         | 276.2       | 0.7            |
|              | 1.1         | 250.9       | 0.6            |
| 3            | 1.7         | 245.4       | 0.7            |
| 4            | 0.9         | 279.1       | 1.1            |
| 5            | 2.6         | 287.4       | 0.6            |
| 6            | 1.6         | 270.5       | 0.5            |
| 7            | 2.2         | 317.4       | -0.1           |
| 8            | 2.3         | 315.4       | -0.8           |
| 9            | 2.9         | 350.8       | -1.5           |
| 10           | 2.8         | 1.9         | -1.7           |
| 11           | 3.7         | 351.5       | -1.6           |
| 12           | 4.0         | 2.2         | -1.7           |
| 13           | 4.2         | 360.0       | -1.8           |
| 14           | 3.9         | 8.3         | -2.1           |
| 15           | 3.4         | 14.7        | -2.1           |
| 16           | 4.3         | 306.6       | -1.9           |
| 17           | 3.4         | 201.7       | -1.8           |
| 18           | 4.6         | 209.8       | -1.7           |
| 19           | 3.6         | 234.6       | -1.2           |
| 20           | 8.1         | 241.1       | -1.2           |
| 21           | 4.0         | 271.9       | -1.3           |
| 22           | 3.0         | 294.7       | -1.1           |
| 23           | 2.6         | 303.4       | -1.0           |
| 24           | 2.5         | 151.3       | -0.9           |
| 1            | 4.0         | 191.2       | -0.2           |
| 2            | 5.2         | 208.1       | -0.5           |
| 3            | 5.6         | 222.6       | -0.5           |
| 4            | 4.6         | 234.6       | -1.1           |
| 5            | 4.5         | 238.2       | -1.1           |
| 6            | 4.1         | 260.6       | -0.9           |
| 7            | 2.8         | 269.4       | -0.9           |
| 8            | 3.2         | 276.2       | -1.4           |
| 9            | 2.8         | 303.7       | -1.8           |
| 10           | 4.7         | 232.1       | -1.8           |
| 11           | 7.9         | 219.1       | -1.9           |
| 12           | 9.7         | 216.5       | -2.0           |
| 13           | 10.4        | 205.1       | -2.1           |
| 14           | 9.9         | 199.5       | -2.1           |
| 15           | 8.7         | 182.9       | -1.8           |
| 16           | 6.8         | 173.8       | -1.8           |
| 17           | 9.5         | 167.8       | -2.0           |
| 18           | 7.2         | 226.4       | -1.8           |
| 19           | 8.0         | 187.8       | -1.7           |
| 20           | 8.1         | 182.9       | -1.4           |
| 21           | 5.2         | 177.0       | -0.6           |
| 22           | 4.2         | 175.7       | 0.7            |
| 23           | 4.6         | 167.4       | 1.7            |
| 24           | 8.6         | 182.6       | 0.5            |
| 1            | 8.9         | 195.7       | 0.8            |



|    |     |       |      |
|----|-----|-------|------|
| 2  | 8.0 | 197.6 | 0.8  |
| 3  | 8.5 | 197.5 | 0.7  |
| 4  | 8.1 | 161.6 | 0.2  |
| 5  | 5.4 | 207.4 | -0.1 |
| 6  | 2.0 | 319.6 | -0.7 |
| 7  | 1.9 | 306.4 | -0.6 |
| 8  | 2.5 | 308.5 | -1.2 |
| 9  | 2.1 | 33.2  | -1.2 |
| 10 | 2.7 | 195.4 | -1.8 |

STOP TIME    MAY 27, 1991    HOUR 9 MINUTE 9

RELEASE NUMBER 91030 CONTAINMENT PURGE

STARTING TIME MAY 27, 1991 HOUR 12 MINUTE 50

| TIME<br>HOUR | WS10<br>MPH | WD10<br>DEG | DT110<br>DEG C |
|--------------|-------------|-------------|----------------|
| 10           | 7.2         | 190.6       | -2.0           |
| 11           | 9.2         | 189.4       | -2.1           |
| 14           | 7.6         | 217.7       | -2.1           |
| 15           | 8.2         | 195.1       | -2.1           |
| 16           | 8.8         | 168.0       | -2.0           |
| 17           | 9.2         | 172.2       | -2.1           |
| 18           | 7.9         | 151.4       | -1.8           |
| 19           | 8.1         | 139.4       | -1.7           |
| 20           | 8.2         | 146.7       | -1.3           |
| 21           | 4.3         | 147.1       | -0.6           |
| 22           | 4.0         | 127.2       | -0.5           |
| 23           | 5.0         | 115.6       | -0.6           |
| 24           | 8.7         | 123.4       | -0.9           |
| 1            | 9.9         | 117.1       | -1.0           |
| 2            | 10.7        | 135.6       | -0.8           |
| 3            | 11.7        | 163.9       | -0.9           |
| 4            | 6.8         | 169.0       | -1.0           |
| 5            | 6.7         | 147.6       | -0.8           |
| 6            | 8.0         | 146.2       | -0.8           |
| 7            | 11.5        | 173.3       | -1.0           |
| 8            | 13.9        | 177.2       | -1.2           |
| 9            | 12.2        | 183.6       | -1.5           |
| 10           | 7.9         | 196.8       | -1.4           |
| 11           | 8.2         | 153.8       | -1.4           |
| 12           | 12.0        | 167.6       | -1.9           |
| 13           | 12.4        | 166.1       | -2.1           |
| 14           | 13.0        | 173.3       | -2.1           |
| 15           | 14.5        | 168.2       | -2.0           |
| 16           | 15.0        | 164.6       | -2.0           |
| 17           | 15.5        | 166.7       | -1.8           |
| 18           | 16.0        | 160.0       | -1.7           |
| 19           | 14.4        | 170.5       | -1.5           |
| 20           | 15.2        | 167.5       | -1.2           |
| 21           | 12.0        | 160.3       | -1.0           |
| 22           | 10.6        | 157.7       | -1.0           |
| 23           | 12.3        | 153.6       | -1.0           |

STOP TIME MAY 28, 1991 HOUR 22 MINUTE 13

RELEASE NUMBER 91031 CONTAINMENT PURGE

STARTING TIME MAY 30, 1991 HOUR 14 MINUTE 11

| TIME<br>HOUR | WS10<br>MPH | WD10<br>DEG | DT110<br>DEG C |
|--------------|-------------|-------------|----------------|
| 14           | 9.8         | 160.3       | -1.6           |
| 15           | 13.2        | 160.4       | -1.8           |
| 16           | 13.0        | 161.8       | -1.8           |
| 17           | 13.3        | 162.5       | -1.7           |
| 18           | 13.1        | 162.5       | -1.6           |
| 19           | 11.5        | 173.4       | -1.4           |
| 20           | 7.4         | 162.5       | -1.2           |
| 21           | 6.8         | 148.0       | -1.0           |
| 22           | 5.4         | 124.7       | -0.7           |
| 23           | 6.5         | 124.2       | -0.4           |
| 24           | 8.0         | 133.0       | -0.6           |
| 1            | 9.5         | 143.9       | -0.7           |
| 2            | 11.9        | 156.5       | -1.0           |
| 3            | 12.2        | 156.0       | -1.0           |
| 4            | 9.3         | 149.4       | -1.1           |
| 5            | 8.7         | 154.2       | -1.1           |
| 6            | 7.9         | 141.6       | -1.2           |
| 7            | 7.6         | 147.4       | -1.2           |
| 8            | 8.3         | 158.4       | -1.3           |
| 9            | 5.1         | 160.4       | -1.3           |

STOP TIME MAY 31, 1991 HOUR P MINUTE 19

STARTING TIME MAY 31, 1991 HOUR 9 MINUTE 40

| TIME<br>HOUR | WS10<br>MPH | WD10<br>DEG | DT110<br>DEG C |
|--------------|-------------|-------------|----------------|
| 9            | 5.1         | 160.4       | -1.3           |
| 10           | 2.8         | 145.7       | -1.4           |
| 11           | 6.5         | 124.4       | -1.6           |
| 12           | 6.9         | 121.4       | -1.7           |
| 13           | 7.6         | 131.1       | -1.7           |
| 14           | 11.2        | 151.8       | -1.9           |
| 15           | 12.6        | 144.8       | -2.0           |
| 16           | 15.4        | 140.4       | -1.9           |
| 17           | 13.3        | 143.3       | -1.8           |
| 18           | 10.8        | 151.9       | -1.7           |
| 19           | 10.3        | 151.9       | -1.5           |
| 20           | 9.9         | 155.1       | -1.2           |
| 21           | 8.7         | 157.2       | -1.0           |
| 22           | 9.7         | 152.7       | -0.9           |
| 23           | 11.0        | 155.7       | -1.0           |
| 24           | 12.8        | 155.9       | -0.5           |
| 1            | 9.7         | 154.0       | -1.1           |
| 2            | 7.4         | 136.0       | -1.0           |
| 3            | 7.5         | 168.6       | -1.0           |

|    |      |       |      |
|----|------|-------|------|
| 4  | 6.6  | 8.7   | -1.4 |
| 5  | 7.8  | 179.7 | -1.2 |
| 6  | 10.8 | 135.7 | -1.1 |
| 7  | 14.7 | 139.1 | -0.9 |
| 8  | 12.7 | 154.7 | -0.1 |
| 9  | 8.5  | 154.2 | -0.8 |
| 10 | 5.7  | 282.7 | -1.2 |
| 11 | 3.6  | 103.4 | -1.5 |
| 12 | 5.1  | 265.0 | -1.6 |
| 13 | 8.9  | 230.6 | -1.7 |
| 14 | 6.8  | 346.3 | -1.5 |
| 15 | 5.2  | 355.5 | -1.3 |
| 16 | 3.2  | 340.3 | -0.8 |
| 17 | 8.1  | 200.3 | -0.4 |
| 18 | 3.6  | 296.0 | -1.2 |
| 19 | 3.5  | 313.7 | -0.6 |
| 20 | 6.1  | 187.9 | -0.5 |
| 21 | 9.2  | 144.3 | -0.5 |
| 22 | 3.3  | 201.8 | -0.9 |
| 23 | 1.5  | 228.4 | 0.4  |
| 24 | 2.2  | 297.1 | -0.5 |
| 1  | 1.5  | 264.4 | -0.2 |
| 2  | 1.5  | 315.2 | 0.1  |
| 3  | 1.6  | 291.9 | 0.1  |
| 4  | 2.6  | 324.5 | 0.4  |
| 5  | 1.7  | 176.6 | 0.2  |
| 6  | 2.1  | 213.0 | 0.3  |
| 7  | 2.5  | 118.8 | 0.9  |
| 8  | 1.2  | 265.9 | 0.3  |
| 9  | 1.2  | 321.8 | -0.7 |
| 10 | 3.5  | 284.9 | -1.5 |
| 11 | 2.7  | 28.7  | -2.1 |
| 12 | 3.0  | 33.5  | -1.9 |
| 13 | 3.9  | 74.6  | -1.9 |
| 14 | 3.6  | 310.4 | -1.9 |
| 15 | 4.2  | 158.3 | -1.7 |
| 16 | 5.2  | 190.8 | -1.7 |
| 17 | 4.5  | 187.7 | -1.7 |
| 18 | 4.5  | 139.2 | -1.7 |
| 19 | 3.6  | 192.4 | -1.5 |
| 20 | 2.3  | 153.2 | -1.3 |
| 21 | 0.7  | 157.8 | 0.4  |
| 22 | 0.9  | 187.0 | 2.0  |
| 23 | 1.1  | 210.1 | 2.7  |
| 24 | 1.4  | 134.2 | 3.5  |
| 1  | 0.5  | 208.6 | 3.5  |
| 2  | 1.0  | 117.2 | 4.1  |
| 3  | 1.4  | 54.1  | 3.6  |
| 4  | 0.7  | 138.9 | 2.1  |
| 5  | 1.2  | 287.6 | 2.2  |
| 6  | 1.4  | 110.7 | 2.3  |

STOP TIME      JUNE 3, 1991      HOUR 5 MINUTE 5

RELEASE NUMBER 91032      CONTAINMENT PURGE

STARTING TIME      JUNE 6, 1991      HOUR 17 MINUTE 36

| TIME<br>HOUR | WS10<br>MPH | WD10<br>DEG | DT110<br>DEG C |
|--------------|-------------|-------------|----------------|
| 17           | 11.1        | 113.3       | -1.5           |
| 18           | 11.3        | 124.2       | -1.6           |
| 19           | 10.8        | 119.3       | -1.5           |
| 20           | 9.0         | 135.5       | -1.1           |
| 21           | 3.9         | 135.8       | -0.4           |
| 22           | 2.1         | 130.6       | 0.9            |
| 23           | 1.2         | 126.5       | 1.5            |
| 24           | 2.8         | 134.7       | 1.6            |
| 1            | 3.4         | 138.6       | 1.3            |
| 2            | 2.9         | 141.3       | 1.1            |
| 3            | 3.7         | 138.2       | 1.0            |
| 4            | 1.3         | 131.6       | 1.1            |
| 5            | 3.6         | 137.6       | 0.9            |
| 6            | 4.7         | 126.5       | 1.6            |
| 7            | 4.2         | 124.4       | 1.8            |
| 8            | 4.8         | 118.6       | -0.1           |
| 9            | 7.7         | 126.5       | -1.3           |
| 10           | 6.3         | 123.1       | -1.6           |
| 11           | 7.8         | 120.3       | -1.8           |
| 12           | 5.1         | 64.3        | -1.0           |
| 13           | 7.2         | 217.1       | -1.4           |
| 14           | 11.6        | 131.7       | -1.8           |
| 15           | 12.9        | 137.7       | -1.9           |
| 16           | 12.5        | 140.2       | -1.9           |
| 17           | 11.9        | 139.4       | -1.8           |
| 18           | 10.8        | 138.8       | -1.7           |
| 19           | 9.5         | 141.6       | -1.5           |
| 20           | 8.6         | 133.1       | -1.2           |
| 21           | 5.0         | 128.8       | -0.4           |
| 22           | 4.3         | 117.8       | 0.4            |
| 23           | 4.0         | 118.7       | 0.7            |
| 24           | 3.7         | 124.4       | 1.3            |
| 1            | 3.2         | 137.3       | 1.1            |
| 2            | 3.5         | 139.6       | 0.5            |
| 3            | 5.2         | 135.6       | 0.2            |
| 4            | 5.8         | 129.7       | 0.3            |
| 5            | 6.7         | 131.7       | -0.1           |
| 6            | 6.4         | 128.2       | -0             |
| 7            | 5.4         | 129.6       | -0.7           |
| 8            | 6.5         | 125.9       | -0.7           |
| 9            | 7.9         | 139.0       | -0.7           |
| 10           | 8.8         | 133.0       | -1.4           |
| 11           | 8.5         | 138.2       | -1.6           |
| 12           | 9.1         | 134.4       | -1.5           |
| 13           | 9.3         | 148.0       | -1.5           |
| 14           | 9.1         | 150.5       | -1.6           |
| 15           | 10.7        | 152.8       | -1.6           |
| 16           | 10.2        | 147.9       | -1.8           |

STOP TIME      JUNE 8, 1991      HOUR 15 MINUTE 25

STARTING TIME JUNE 8, 1991 HOUR 20 MINUTE 20

| TIME<br>HOUR | WS10<br>MPH | WD10<br>DEG | DT110<br>DEG C |
|--------------|-------------|-------------|----------------|
| 20           | 10.5        | 160.4       | -1.2           |
| 21           | 8.7         | 160.0       | -1.0           |
| 22           | 10.0        | 162.3       | -1.0           |
| 23           | 9.4         | 162.8       | -1.0           |
| 24           | 9.3         | 164.0       | -0.9           |
| 1            | 9.1         | 160.5       | -0.8           |
| 2            | 8.5         | 149.0       | -0.8           |
| 3            | 7.3         | 145.2       | -0.6           |
| 4            | 8.0         | 153.7       | -0.8           |
| 5            | 7.2         | 153.3       | -0.9           |
| 6            | 6.7         | 161.5       | -1.0           |
| 7            | 5.8         | 172.7       | -1.0           |
| 8            | 7.7         | 167.7       | -1.3           |
| 9            | 8.5         | 167.8       | -1.4           |
| 10           | 9.3         | 168.4       | -1.5           |
| 11           | 11.6        | 168.6       | -1.5           |
| 12           | 15.2        | 171.8       | -1.8           |
| 13           | 13.8        | 189.9       | -1.8           |
| 14           | 17.3        | 170.6       | -1.8           |
| 15           | 14.7        | 177.2       | -1.8           |
| 16           | 13.2        | 176.2       | -1.8           |
| 17           | 14.2        | 167.7       | -1.7           |
| 18           | 12.7        | 170.4       | -1.6           |
| 19           | 11.7        | 170.6       | -1.5           |
| 20           | 10.7        | 170.2       | -1.2           |
| 21           | 9.6         | 161.8       | -1.0           |
| 22           | 9.1         | 164.3       | -0.8           |
| 23           | 9.5         | 175.8       | -0.4           |
| 24           | 10.2        | 187.9       | -0.7           |
| 1            | 11.4        | 191.4       | -0.8           |
| 2            | 11.1        | 188.4       | -0.9           |
| 3            | 12.3        | 195.2       | -0.6           |
| 4            | 3.3         | 331.2       | -1.1           |
| 5            | 1.8         | 285.7       | -1.5           |
| 6            | 3.7         | 165.7       | -1.5           |
| 7            | 2.8         | 341.0       | -1.4           |

STOP TIME JUNE 10, 1991 HOUR 6 MINUTE 3

RELEASE NUMBER 91033      CONTAINMENT PURGE

STARTING TIME      JUNE 13, 1991      HOUR 14 MINUTE 30

| TIME<br>HOUR | WS10<br>MPH | WD10<br>DEG | DT110<br>DEG C |
|--------------|-------------|-------------|----------------|
| 14           | 4.5         | 177.5       | -1.5           |
| 15           | 4.9         | 155.9       | -1.4           |
| 16           | 7.2         | 124.8       | -1.3           |
| 17           | 9.4         | 124.6       | -1.4           |
| 18           | 9.2         | 139.3       | -1.1           |
| 19           | 8.9         | 142.1       | -0.9           |
| 20           | 7.5         | 136.4       | -0.8           |
| 21           | 5.3         | 134.1       | -0.3           |
| 22           | 5.8         | 130.4       | 0.4            |
| 23           | 5.8         | 124.2       | 0.3            |
| 24           | 11.2        | 178.6       | -0.7           |
| 1            | 6.9         | 216.3       | -1.1           |
| 2            | 6.2         | 275.6       | -0.5           |
| 3            | 4.6         | 295.1       | -0.4           |
| 4            | 4.2         | 301.1       | -0.3           |

STOP TIME      JUNE 14, 1991      HOUR 3 MINUTE 20

STARTING TIME      JUNE 14, 1991      HOUR 4 MINUTE 34

| TIME<br>HOUR | WS10<br>MPH | WD10<br>DEG | DT110<br>DEG C |
|--------------|-------------|-------------|----------------|
| 4            | 4.2         | 301.1       | -0.3           |
| 5            | 4.0         | 307.1       | -0.3           |
| 6            | 9.5         | 133.1       | -0.8           |
| 7            | 10.7        | 137.6       | -1.1           |
| 8            | 7.1         | 106.6       | -1.0           |
| 9            | 4.2         | 88.8        | -1.1           |
| 10           | 9.4         | 138.5       | -1.2           |
| 11           | 8.9         | 24.7        | -1.6           |
| 12           | 12.1        | 171.1       | -1.5           |
| 13           | 12.4        | 171.6       | -1.5           |
| 14           | 11.3        | 163.6       | -1.5           |
| 15           | 11.7        | 165.0       | -1.5           |
| 16           | 10.9        | 159.7       | -1.4           |
| 17           | 9.5         | 160.0       | -1.3           |
| 18           | 8.3         | 147.9       | -1.1           |
| 19           | 4.9         | 142.2       | -0.5           |
| 20           | 5.0         | 166.9       | 0.9            |
| 21           | 11.4        | 213.7       | 0.5            |
| 22           | 5.1         | 253.1       | -0.6           |
| 23           | 10.5        | 134.0       | -0.8           |
| 24           | 13.1        | 150.9       | -0.6           |
| 1            | 14.6        | 161.1       | -0.7           |
| 2            | 11.2        | 183.8       | -0.6           |
| 3            | 10.7        | 230.8       | 0.2            |

|    |     |       |      |
|----|-----|-------|------|
| 4  | 4.1 | 260.2 | 0.9  |
| 5  | 3.4 | 328.7 | 0.4  |
| 6  | 4.5 | 99.8  | -1.1 |
| 7  | 3.7 | 218.3 | -0.9 |
| 8  | 1.7 | 313.9 | -0.8 |
| 9  | 7.1 | 42.4  | -1.2 |
| 10 | 3.4 | 334.4 | -1.5 |
| 11 | 6.0 | 337.5 | -1.5 |
| 12 | 8.9 | 337.2 | -1.7 |
| 13 | 9.6 | 336.0 | -1.7 |
| 14 | 9.8 | 332.4 | -1.8 |
| 15 | 9.4 | 334.0 | -1.7 |
| 16 | 9.0 | 337.0 | -1.7 |
| 17 | 8.5 | 339.6 | -1.6 |
| 18 | 8.4 | 340.5 | -1.4 |
| 19 | 8.2 | 341.9 | -1.2 |
| 20 | 5.0 | 340.4 | -0.9 |
| 21 | 3.5 | 333.4 | -0.4 |
| 22 | 2.4 | 282.3 | 1.2  |
| 23 | 1.4 | 175.2 | 2.2  |
| 24 | 1.6 | 268.2 | 2.9  |
| 1  | 2.2 | 299.2 | 3.0  |
| 2  | 1.2 | 273.3 | 3.0  |
| 3  | 1.0 | 183.9 | 3.1  |
| 4  | 1.2 | 255.6 | 2.2  |
| 5  | 1.4 | 265.2 | 1.9  |
| 6  | 1.9 | 277.6 | 2.2  |
| 7  | 1.4 | 291.7 | 1.8  |
| 8  | 1.4 | 292.8 | -0.1 |
| 9  | 2.2 | 339.6 | -1.2 |
| 10 | 2.0 | 331.3 | -1.5 |
| 11 | 2.3 | 276.8 | -2.0 |
| 12 | 3.1 | 345.3 | -1.7 |
| 13 | 3.9 | 270.1 | -2.0 |
| 14 | 3.6 | 6.4   | -1.9 |
| 15 | 4.5 | 226.7 | -1.8 |
| 16 | 4.0 | 98.6  | -1.9 |
| 17 | 4.7 | 124.0 | -1.8 |
| 18 | 5.1 | 122.3 | -1.7 |
| 19 | 6.0 | 143.5 | -1.5 |
| 20 | 5.3 | 134.6 | -0.8 |
| 21 | 3.7 | 140.8 | -0.1 |
| 22 | 3.0 | 129.3 | 2.0  |
| 23 | 1.7 | 128.2 | 3.5  |
| 24 | 2.9 | 179.7 | 3.9  |
| 1  | 5.5 | 114.1 | 4.8  |
| 2  | 5.5 | 131.0 | 4.1  |
| 3  | 5.7 | 155.6 | 3.3  |
| 4  | 4.3 | 145.3 | 3.3  |
| 5  | 6.3 | 128.8 | 3.1  |
| 6  | 6.5 | 131.2 | 2.1  |
| 7  | 5.2 | 131.8 | 1.0  |

STOP TIME      JUNE 17, 1991      HOUR 6 MINUTE 24



RELEASE NUMBER 91034      CONTAINMENT PURGE

STARTING TIME      JUNE 20, 1991      HOUR 20 MINUTE 39

| TIME<br>HOUR | WS10<br>MPH | WD10<br>DEG | DT110<br>DEG C |
|--------------|-------------|-------------|----------------|
| 20           | 9.2         | 132.7       | -0.8           |
|              | 7.8         | 141.5       | -0.1           |
| 21           | 7.5         | 137.4       | 0.5            |
| 22           | 8.5         | 150.4       | -0.2           |
| 23           | 7.6         | 146.9       | -0.2           |
|              | 5.6         | 124.6       | 0.6            |
| 2            | 5.4         | 136.8       | 1.0            |
| 3            | 6.5         | 128.9       | 1.1            |
| 4            | 7.4         | 137.7       | 0.8            |
| 5            | 7.5         | 141.2       | 0.2            |
| 6            | 8.4         | 151.6       | -0.6           |
| 7            | 7.4         | 208.3       | -0.6           |
| 8            | 8.4         | 54.3        | -1.1           |
| 9            | 12.1        | 96.0        | -1.0           |
| 10           | 9.1         | 165.0       | -1.0           |
| 11           | 5.7         | 105.3       | -1.0           |
| 12           | 15.5        | 117.3       | -1.0           |
| 13           | 9.9         | 235.0       | -1.3           |
| 14           | 6.9         | 346.8       | -1.2           |
| 15           | 6.6         | 345.7       | -1.3           |
| 16           | 4.3         | 326.0       | -1.4           |
| 17           | 3.2         | 18.9        | -1.2           |
| 18           | 9.1         | 103.3       | -1.5           |
| 19           | 6.7         | 23.8        | -1.3           |
| 20           | 4.0         | 351.4       | -1.1           |
| 21           | 3.2         | 343.9       | -1.0           |

STOP TIME      JUNE 21, 1991      HOUR 20 MINUTE 44

RELEASE NUMBER 91035      CONTAINMENT PURGE

STARTING TIME      JUNE 22, 1991      HOUR 4 MINUTE 14

| TIME<br>HOUR | WS10<br>MPH | WD10<br>DEG | DT110<br>DEG C |
|--------------|-------------|-------------|----------------|
| 4            | 5.1         | 346.7       | -1.3           |
| 5            | 5.8         | 358.6       | -1.3           |
| 6            | 5.1         | 1.9         | -1.3           |
| 7            | 4.6         | 13.3        | -1.3           |
| 8            | 4.0         | 19.1        | -1.4           |
| 9            | 4.8         | 358.1       | -1.4           |
| 10           | 4.6         | 17.9        | -1.5           |
| 11           | 5.2         | 31.0        | -1.5           |
| 12           | 4.5         | 7.4         | -1.5           |
| 13           | 5.3         | 347.0       | -1.7           |
| 14           | 5.6         | 7.6         | -1.5           |
| 15           | 5.3         | 16.3        | -1.7           |
| 16           | 5.9         | 19.1        | -1.7           |
| 17           | 6.4         | 2.8         | -1.5           |
| 18           | 5.6         | 16.0        | -1.5           |
| 19           | 4.5         | 14.0        | -1.3           |
| 20           | 5.8         | 54.1        | -1.3           |
| 21           | 6.4         | 76.7        | -1.2           |
| 22           | 4.1         | 84.1        | -1.3           |
| 23           | 2.8         | 29.4        | -1.2           |
| 24           | 2.1         | 10.4        | -1.2           |
| 1            | 2.3         | 24.4        | -1.2           |
| 2            | 3.2         | 39.3        | -1.3           |
| 3            | 3.1         | 51.6        | -1.3           |
| 4            | 3.1         | 56.7        | -1.3           |
| 5            | 2.9         | 46.2        | -1.3           |
| 6            | 4.6         | 89.1        | -1.3           |
| 7            | 4.7         | 92.4        | -1.3           |
| 8            | 6.6         | 102.5       | -1.4           |
| 9            | 8.8         | 117.2       | -1.4           |
| 10           | 5.6         | 3.2         | -1.4           |
| 11           | 3.5         | 118.3       | -1.4           |
| 12           | 2.5         | 1.3         | -1.4           |
| 13           | 4.2         | 45.2        | -1.5           |
| 14           | 3.7         | 71.9        | -1.5           |
| 15           | 4.2         | 91.8        | -1.6           |
| 16           | 4.1         | 79.1        | -1.6           |
| 17           | 4.2         | 84.5        | -1.5           |
| 18           | 5.0         | 94.0        | -1.4           |
| 19           | 6.4         | 114.3       | -1.3           |
| 20           | 6.5         | 121.0       | -1.3           |
| 21           | 5.5         | 125.3       | -1.3           |
| 22           | 5.6         | 111.6       | -1.2           |
| 23           | 6.4         | 113.8       | -1.3           |
| 24           | 6.7         | 130.4       | -1.2           |
| 1            | 6.8         | 133.6       | -1.2           |
| 2            | 4.3         | 134.3       | -1.0           |
| 3            | 4.5         | 123.0       | -1.3           |
| 4            | 3.0         | 131.6       | -1.3           |

|    |      |       |      |
|----|------|-------|------|
| 5  | 1.8  | 111.5 | -1.2 |
| 6  | 2.1  | 239.1 | -1.2 |
| 7  | 1.8  | 127.5 | -1.2 |
| 8  | 1.6  | 150.9 | -1.2 |
| 9  | 4.3  | 118.8 | -1.5 |
| 10 | 6.0  | 136.5 | -1.6 |
| 11 | 5.6  | 140.7 | -1.8 |
| 12 | 7.1  | 143.1 | -1.7 |
| 13 | 6.3  | 138.7 | -1.7 |
| 14 | 9.1  | 130.7 | -1.7 |
| 15 | 7.8  | 152.1 | -1.7 |
| 16 | 8.1  | 129.6 | -1.8 |
| 17 | 9.6  | 138.1 | -1.7 |
| 18 | 9.9  | 149.1 | -1.6 |
| 19 | 10.5 | 133.3 | -1.5 |
| 20 | 8.8  | 135.8 | -1.2 |
| 21 | 5.9  | 134.9 | -0.6 |
| 22 | 3.4  | 142.0 | 0.2  |
| 23 | 4.5  | 132.0 | 0.3  |
| 24 | 5.4  | 132.8 | 0.2  |
| 1  | 7.8  | 141.6 | -0.4 |
| 2  | 9.1  | 132.7 | -0.5 |
| 3  | 9.2  | 131.4 | -0.5 |
| 4  | 9.6  | 132.6 | -0.4 |

STOP TIME      JUNE 25, 1991      HOUR    3    MINUTE    25

RELEASE NUMBER 91036      CONTAINMENT PURGE

STARTING TIME      JUNE 27, 1991      HOUR 12 MINUTE 55

| TIME<br>HOUR | WS10<br>MPH | WD10<br>DEG | DT110<br>DEG C |
|--------------|-------------|-------------|----------------|
| 12           | 14.5        | 170.9       | -1.8           |
| 13           | 15.0        | 169.5       | -1.9           |
| 14           | 15.0        | 167.2       | -1.9           |
| 15           | 13.9        | 167.6       | -1.9           |
| 16           | 12.0        | 164.0       | -1.9           |
| 17           | 11.8        | 164.2       | -1.7           |
| 18           | 12.1        | 156.5       | -1.6           |
| 19           | 10.3        | 154.7       | -1.3           |
| 20           | 9.0         | 146.6       | -1.0           |
| 21           | 8.9         | 144.5       | -0.6           |
| 22           | 10.0        | 145.8       | -0.6           |
| 23           | 10.8        | 148.5       | -0.7           |
| 24           | 12.1        | 155.9       | -0.8           |
| 1            | 13.4        | 159.0       | -0.8           |
| 2            | 13.5        | 159.8       | -0.8           |
| 3            | 9.7         | 149.3       | -1.0           |
| 4            | 10.0        | 155.0       | -0.9           |
| 5            | 10.7        | 169.7       | -0.7           |
| 6            | 12.1        | 184.5       | -0.6           |
| 7            | 10.5        | 186.7       | -0.8           |
| 8            | 8.5         | 183.4       | -0.9           |
| 9            | 10.0        | 182.7       | -1.3           |
| 10           | 11.0        | 187.0       | -1.7           |
| 11           | 10.8        | 188.9       | -1.8           |
| 12           | 11.0        | 179.5       | -2.0           |
| 13           | 11.7        | 169.6       | -2.0           |
| 14           | 13.7        | 158.6       | -2.0           |
| 15           | 14.3        | 156.2       | -1.9           |
| 16           | 13.6        | 166.9       | -1.8           |
| 17           | 12.4        | 166.4       | -1.7           |
| 18           | 12.4        | 165.3       | -1.5           |
| 19           | 9.7         | 160.6       | -1.3           |
| 20           | 7.7         | 142.4       | -0.8           |
| 21           | 8.6         | 147.2       | -0.4           |
| 22           | 9.0         | 146.8       | -0.4           |
| 23           | 10.2        | 156.4       | -0.7           |
| 24           | 10.0        | 157.2       | -0.7           |
| 1            | 11.9        | 161.1       | -0.8           |
| 2            | 12.4        | 176.6       | -0.7           |
| 3            | 12.2        | 184.8       | -0.8           |
| 4            | 8.0         | 175.5       | -0.7           |
| 5            | 8.3         | 160.8       | -0.2           |
| 6            | 8.3         | 165.7       | -0.2           |
| 7            | 8.3         | 168.0       | -0.2           |
| 8            | 10.1        | 175.4       | -0.7           |
| 9            | 12.8        | 183.5       | -1.2           |
| 10           | 11.7        | 196.7       | -1.6           |
| 11           | 10.9        | 194.2       | -1.8           |
| 12           | 9.8         | 189.3       | -1.9           |

|    |      |       |      |
|----|------|-------|------|
| 13 | 10.3 | 178.5 | -2.0 |
| 14 | 10.3 | 175.6 | -1.9 |
| 15 | 9.1  | 177.5 | -1.4 |
| 16 | 7.3  | 151.0 | -1.3 |
| 17 | 9.8  | 162.4 | -1.7 |
| 18 | 9.0  | 153.1 | -1.5 |
| 19 | 6.9  | 150.1 | -1.1 |
| 20 | 7.4  | 135.0 | -0.7 |
| 21 | 7.0  | 141.4 | 0.2  |
| 22 | 6.1  | 130.3 | 1.0  |
| 23 | 6.2  | 132.2 | 1.6  |
| 24 | 6.3  | 133.7 | 1.2  |
| 1  | 8.2  | 148.1 | 0.1  |
| 2  | 10.4 | 162.3 | -0.7 |
| 3  | 9.8  | 164.7 | -0.7 |
| 4  | 8.9  | 157.4 | -0.7 |
| 5  | 7.7  | 146.4 | -0.5 |
| 6  | 8.5  | 152.2 | -0.4 |
| 7  | 8.0  | 166.6 | -0.6 |
| 8  | 8.6  | 170.0 | -0.9 |
| 9  | 10.8 | 181.5 | -1.3 |
| 10 | 11.4 | 175.7 | -1.6 |
| 11 | 12.0 | 167.6 | -1.8 |
| 12 | 14.3 | 164.8 | -1.8 |
| 13 | 15.6 | 163.6 | -1.9 |
| 14 | 13.8 | 168.5 | 2.0  |
| 15 | 15.4 | 159.3 | -2.0 |
| 16 | 13.8 | 154.8 | -1.9 |
| 17 | 12.8 | 157.5 | -1.9 |
| 18 | 13.3 | 162.3 | -1.6 |
| 19 | 11.5 | 153.1 | -1.4 |
| 20 | 10.4 | 145.7 | -1.0 |
| 21 | 8.2  | 134.8 | -0.3 |
| 22 | 8.3  | 143.7 | -0.2 |
| 23 | 7.2  | 210.6 | -0.6 |
| 24 | 4.0  | 314.8 | -1.2 |

STOP TIME      JUNE 30, 1991      HOUR 23 MINUTE 59

RELEASE NUMBER 91001      DECAY TANK PURGE

STARTING TIME      JAN    1, 1991      HOUR 17 MINUTE 33

| TIME<br>HOUR | WS10<br>MPH | WD10<br>DEG | DT110<br>DEG C |
|--------------|-------------|-------------|----------------|
| 17           | 2.5         | 339.1       | -1.1           |
| 18           | 3.2         | 337.7       | -0.8           |
| 19           | 5.2         | 357.4       | -1.2           |
| 20           | 4.5         | 4.0         | -1.5           |
| 21           | 5.2         | 354.5       | -1.4           |
| 22           | 6.9         | 344.8       | -1.3           |
| 23           | 4.9         | 355.5       | -1.1           |
| 24           | 1.4         | 352.2       | -0.9           |
| 1            | 1.1         | 11.1        | -0.9           |
| 2            | 4.3         | 351.3       | -1.5           |
| 3            | 5.6         | 3.1         | -1.7           |

STOP TIME      JAN    2, 1991      HOUR 2 MINUTE 4

RELEASE NUMBER 91002      DECAY TANK PURGE

STARTING TIME      JAN    7, 1991      HOUR 22 MINUTE 7

| TIME<br>HOUR | WS10<br>MPH | WD10<br>DEG | DT110<br>DEG C |
|--------------|-------------|-------------|----------------|
| 22           | 2.2         | 346.2       | -0.9           |
| 23           | 4.1         | 139.0       | -1.3           |
| 24           | 6.1         | 153.4       | -1.4           |
| 1            | 5.9         | 170.5       | -1.2           |
| 2            | 6.8         | 167.3       | -1.2           |
| 3            | 8.6         | 170.4       | -1.4           |
| 4            | 9.3         | 172.4       | -1.5           |
| 5            | 7.3         | 180.1       | -1.5           |
| 6            | 5.8         | 184.2       | -1.3           |

STOP TIME      JAN    8, 1991      HOUR 5 MINUTE 30

RELEASE NUMBER 91003      DECAY TANK PURGE

STARTING TIME      JAN 31, 1991      HOUR 2 MINUTE 0

| TIME<br>HOUR | WS10<br>MPH | WD10<br>DEG | DT110<br>DEG C |
|--------------|-------------|-------------|----------------|
| 2            | 1.2         | 316.9       | 3.2            |
| 3            | 0.3         | 134.9       | 3.3            |

STOP TIME      JAN 31, 1991      HOUR 2 MINUTE 4

STARTING TIME      JAN 31, 1991      HOUR 2 MINUTE 5

| TIME<br>HOUR | WS10<br>MPH | WD10<br>DEG | DT110<br>DEG C |
|--------------|-------------|-------------|----------------|
| 2            | 1.2         | 316.9       | 3.2            |
| 3            | 0.3         | 134.9       | 3.3            |
| 4            | 0.6         | 109.2       | 6.0            |
| 5            | 0.6         | 281.2       | 6.7            |
| 6            | 0.6         | 103.6       | 8.0            |
| 7            | 0.6         | 82.7        | 6.1            |
| 8            | 0.3         | 60.3        | 4.5            |
| 9            | 1.4         | 313.3       | 4.1            |
| 10           | 7.7         | 150.1       | -0.6           |

STOP TIME      JAN 31, 1991      HOUR 9 MINUTE 55



RELEASE NUMBER 91004 DECAY TANK PURGE

STARTING TIME JAN 31, 1991 HOUR 13 MINUTE 51

| TIME<br>-HOUR | WS10<br>MPH | WD10<br>DEG | DT110<br>DEG C |
|---------------|-------------|-------------|----------------|
| 13            | 11.3        | 170.8       | -1.6           |
| 14            | 6.0         | 174.8       | -1.8           |
| 15            | 5.7         | 178.1       | -1.7           |
| 16            | 4.7         | 167.1       | -1.7           |
| 17            | 4.9         | 157.8       | -1.7           |
| 18            | 7.1         | 163.3       | 0.1            |
| 19            | 7.7         | 163.5       | 1.6            |
| 20            | 3.7         | 196.5       | 3.3            |
| 21            | 3.6         | 125.2       | 3.7            |

STOP TIME JAN 31, 1991 HOUR 20 MINUTE 15

RELEASE NUMBER 91005      DECAY TANK PURGE

STARTING TIME      MAR    5, 1991      HOUR 17 MINUTE 20

| TIME<br>HOUR | WS10<br>MPH | WD10<br>DEG | DT110<br>DEG C |
|--------------|-------------|-------------|----------------|
| 17           | 4.1         | 205.8       | -0.2           |
| 18           | 9.8         | 282.6       | -0.5           |
| 19           | 7.6         | 316.8       | -1.0           |
| 20           | 10.9        | 310.8       | -1.2           |
| 21           | 10.6        | 317.0       | -1.5           |
| 22           | 10.5        | 308.5       | -1.5           |
| 23           | 11.7        | 312.7       | -1.5           |

STOP TIME      MAR    5, 1991      HOUR 22 MINUTE 15

RELEASE NUMBER 91006    DECAY TANK PURGE  
STARTING TIME    MAR 19, 1991    HOUR 22 MINUTE 8

| TIME<br>HOUR | WS10<br>MPH | WD10<br>DEG | DT110<br>DEG C |
|--------------|-------------|-------------|----------------|
| 22           | 5.1         | 115.7       | 1.0            |
| 23           | 5.8         | 128.3       | 0.8            |
| 24           | 10.1        | 125.2       | -0.3           |
| 1            | 6.6         | 117.0       | -0.4           |
| 2            | 7.1         | 127.7       | -0.8           |
| 3            | 8.6         | 122.9       | -1.0           |
| 4            | 9.1         | 113.8       | -1.6           |
| 5            | 7.5         | 105.8       | -1.5           |

STOP TIME    MAR 20, 1991    HOUR 4 MINUTE 30

RELEASE NUMBER 91007      DECAY TANK PURGE

STARTING TIME      MAY    2, 1991      HOUR 14 MINUTE 25

| TIME<br>HOUR | WS10<br>MPH | WD10<br>DEG | DT110<br>DEG C |
|--------------|-------------|-------------|----------------|
| 14           | 6.2         | 44.5        | -2.4           |
| 15           | 6.2         | 50.9        | -3.5           |

STOP TIME      MAY    2, 1991      HOUR 14 MINUTE 50

STARTING TIME      MAY    2, 1991      HOUR 14 MINUTE 52

| TIME<br>HOUR | WS10<br>MPH | WD10<br>DEG | DT110<br>DEG C |
|--------------|-------------|-------------|----------------|
| 14           | 6.2         | 44.5        | -2.4           |
| 15           | 6.2         | 50.9        | -2.5           |
| 16           | 6.3         | 261.2       | -2.6           |
| 17           | 5.1         | 212.3       | -2.2           |
| 18           | 6.8         | 270.6       | -2.3           |
| 19           | 9.3         | 54.6        | -1.9           |
| 20           | 8.1         | 64.4        | -1.6           |
| 21           | 6.7         | 71.4        | -1.4           |
| 22           | 6.4         | 74.3        | -1.4           |
| 23           | 7.1         | 85.0        | -1.5           |

STOP TIME      MAY    2, 1991      HOUR 22 MINUTE 30

RELEASE NUMBER 91009 DECAV TANK PURGE

STARTING TIME JUNE 25, 1991 HOUR 4 MINUTE 25

| TIME<br>HOUR | WS10<br>MPH | WD10<br>DEG | DT110<br>DEG C |
|--------------|-------------|-------------|----------------|
| 4            | 9.6         | 132.6       | -0.4           |
| 5            | 7.6         | 130.5       | -0.1           |
| 6            | 7.3         | 135.2       | -0.2           |
| 7            | 8.1         | 134.8       | -0.4           |

STOP TIME JUNE 25, 1991 HOUR 6 MINUTE 58

RELEASE NUMBER 91010 DECAY TANK PURGE

STARTING TIME JUNE 25, 1991 HOUR 14 MINUTE 53

| TIME<br>HOUR | WS10<br>MPH | WD10<br>DEG | DT110<br>DEG C |
|--------------|-------------|-------------|----------------|
| 14           | 17.9        | 148.6       | -1.9           |
| 15           | 19.4        | 151.1       | -1.8           |
| 16           | 18.4        | 154.3       | -1.8           |
| 17           | 19.7        | 153.7       | -1.7           |
| 18           | 16.8        | 153.3       | -1.5           |
| 19           | 16.2        | 153.2       | -1.3           |

STOP TIME JUNE 25, 1991 HOUR 18 MINUTE 30

SECTION VII  
POTENTIAL DOSES TO INDIVIDUALS AND POPULATIONS

(Regulatory Guide 1.21)

July 1, 1991 - December 31, 1991

## POTENTIAL DOSES TO INDIVIDUALS AND POPULATIONS

### A. Potential Semiannual Doses to Individuals from Gaseous Releases

Total body, skin and organ doses from ground releases were calculated in millirem (mrem) to an average adult, teenager, child, and infant using the annual configuration of the GASPARG program. Results to each receptor are shown in Tables VII-A-1 through VII-A-34. Also, the doses to the same groups, Table VII-B-1, in units of millirads (mrad), due to gamma and beta radiation carried by air, were computed using GASPARG. In its annual configuration, GASPARG assumes that all release rates are entered in curies per year (Ci/yr). If the total curies released per isotope during the semiannual period are assumed released for an annual period (Ci/yr), this release rate reduction is conveniently offset by the annual usage or dose factors, thereby allowing GASPARG to calculate semiannual doses.

The inputs to GASPARG for the semiannual period from July 1, 1991 thru December 31, 1991 were as follows:

- (1) All gaseous effluents were as described in Section III.
- (2) Entrained gases (Xe-131M, Xe-133M, Xe-133, and Xe-135) from Liquid effluents were described in Section IV.
- (3) Semi-Annual "X/Qs" at the actual receptor locations, which are corrected for open terrain and plume depletion are calculated according to Regulatory Guide 1.111. Also included are semiannual deposition rates corrected for the open terrain factor.
- (4) The production, intake and grazing fractions were as follows: 1.0 for leafy vegetables grown in garden of interest, 0.76 for produce grown in garden of interest, 0.5 for the pasture grazing season of the milk animal, 1.0 for pasture grazing season of the meat animal, and  $8 \text{ g/m}^3$  for the air water (humidity) concentrations.



## Potential Semiannual Doses to Individuals from Gaseous Releases (Con't)

- (5) All dose factors, transport times from receptor to individual, and usage factors are defined by Regulatory Guide 1.109 and NUREG-0172.
- (6) Site specific information, within a five mile radius of the plant, on types of receptors located in each sector was used. That is, if a cow was not present in a sector, then the milk pathway for that sector was not considered. If it was present, then its actual sector distance was used.

These inputs introduce a most conservative approach for the following reasons:

- (1) The open terrain and deposition corrections increase semiannual "X/Qs" by a factor ranging between 1.0 and 4.0.
- (2) The production, intake, and grazing fractions, as defined in the input definition statement, represent the environment in an extremely conservative manner.

## B. Potential Semiannual Doses to Population from Gaseous Releases

The GASPAR program in its annual configuration was also used to calculate the ALARA integrated population dose summary for the total body, skin and organ doses in manrems for all individuals within a 50 mile radius. Results are shown in Table VII-C-1. The population integrated dose is the summation of the dose received by all individuals and has units of man-thyroid-rem when applied to the summation of thyroid doses. The same inputs were used as in the individual case with the addition of the following:

- (1) A total population of 734,668, based on the 1980 census, was used to define the sector segments within a 50 mile radius of the plant.

Potential Semiannual Doses to Population from Gaseous Releases (Con't)

- (2) Total productions for milk, meat, and vegetation were based on 1973 annual data for Nebraska as recommended by the NRC for use in GASPAR.

C. Potential Semiannual Doses to Individuals from Liquid Releases

The body, skin and organ mrem for liquid releases were calculated for all significant liquid pathways using the annual configuration of the LADTAP program. Dose conversion factors used by LADTAP for ingestion and shore-line deposition are shown in Table VII-D-1. Results are shown in Tables VII-D-2 through VII-D-9.

The inputs to LADTAP for the semiannual period from July 1, 1991 thru December 31, 1991 were as follows:

- (1) All liquid effluents were as described in Section IV, except for the entrained gases (Xe-131M, Xe-133M, Xe-133, and Xe-135).
- (2) A plant discharge rate of 779 cubic feet per second (CFS) was utilized.
- (3) Dilution factors (inverse of the mixing ratios) were computed based on Regulatory Guide 1.113 (equation 7 in Section 2.a.1 of Appendix A) for a one-dimensional transport model.
- (4) A drinking water transport time of 6.6 hours to the Omaha intake and 7.0 hours to the Council Bluffs intake for the ALARA doses in Table VII-D-2 through VII-D-5 was used. For Tables VII-D-6 through VII-D-9, a transport time of 0.0 was used from the plant to the discharge site.
- (5) A shorewidth factor of 0.2 was used.

## Potential Semiannual Doses to Individuals from Liquid Releases (Con't)

- (6) All dose factors, transport times from receptor to individual, and usage factors are defined by Regulatory Guide 1.109 and NUREG-0172.

The discharge site in Tables VII-D-6 through VII-D-9 was chosen to present a most conservative estimate of mrem dose for an average adult, teenager, child and infant. A conservative approach is also presented by the assumption that Omaha and Council Bluffs receive all drinking water from the Missouri River.

### D. Potential Semiannual Doses to Population from Liquid Releases

The LADTAP program in its annual configuration was also used to calculate the total body and organ doses for the population of 734,668 within a 50 mile radius of the plant. Results are shown in Tables VII-E-1 through VII-E-6. The same input was used as in the individual cases with the addition of the following:

- (1) Dilution factors and transport times for the pathways of sportfish, commercial fish, recreation and biota were calculated based on a distance of two miles downstream as approximately the distance to the nearest recreational facility - DeSoto Bend National Wildlife Refuge.
- (2) The total fish harvest for both sport and commercial purposes was calculated using an average commercial fish catch for Nebraska.

### E. Direct Radiation Doses to Individuals and Population

Direct radiation doses, attributed to the gamma radiation emitted from the containment structure, were not observed above local background at any TLD sample locations for this semiannual period.

BETA AIR DOSE = 2.18E-03 MILLRADS  
 GAMMA AIR DOSE = 7.60E-04 MILLRADS  
 TABLE VII-A-1

| PATHWAY | T. BODY  | GI-TRACT | BONE     | LIVER    | KIDNEY   | THYROID  | LUNG     | SKIN     |
|---------|----------|----------|----------|----------|----------|----------|----------|----------|
| PLUME   | 4.46E-04 | 4.46E-04 | 4.46E-04 | 4.46E-04 | 4.46E-04 | 4.46E-04 | 4.68E-04 | 1.25E-03 |
| GROUND  | 2.50E-07 | 2.50E-07 | 2.50E-07 | 2.50E-07 | 2.50E-07 | 2.50E-07 | 2.50E-07 | 2.92E-07 |
| INHA    |          |          |          |          |          |          |          |          |
| ADULT   | 2.42E-06 | 2.41E-06 | 4.57E-08 | 2.42E-06 | 2.43E-06 | 6.43E-06 | 2.42E-06 | 2.40E-06 |
| TEEN    | 2.43E-06 | 2.42E-06 | 5.48E-08 | 2.45E-06 | 2.45E-06 | 7.38E-06 | 2.45E-06 | 2.42E-06 |
| CHILD   | 2.15E-06 | 2.14E-06 | 5.12E-08 | 2.17E-06 | 2.17E-06 | 7.67E-06 | 2.17E-06 | 2.14E-06 |
| INFANT  | 1.24E-06 | 1.23E-06 | 3.23E-08 | 1.25E-06 | 1.25E-06 | 6.28E-06 | 1.25E-06 | 1.23E-06 |

FORT CALHOUN RECEPTORS IN ALL SECTORS 02-03-92  
 SPECIAL LOCA # 2 RES  
 AT 1.86 MILES NNE

BETA AIR DOSE = 1.02E-02 MILLRADS  
 GAMMA AIR DOSE = 3.59E-03 MILLRADS

TABLE VII-A-2

| PATHWAY | T.BODY   | GI-TRACT | BONE     | LIVER    | KIDNEY   | THYROID  | LUNG     | SKIN     |
|---------|----------|----------|----------|----------|----------|----------|----------|----------|
| PLUME   | 2.11E-03 | 2.11E-03 | 2.11E-03 | 2.11E-03 | 2.11E-03 | 2.11E-03 | 2.21E-03 | 5.88E-03 |
| GROUND  | 8.76E-07 | 8.76E-07 | 8.76E-07 | 8.76E-07 | 8.76E-07 | 8.76E-07 | 8.76E-07 | 1.02E-06 |
| INHAL   |          |          |          |          |          |          |          |          |
| ADULT   | 1.12E-05 | 1.12E-05 | 2.34E-07 | 1.13E-05 | 1.13E-05 | 3.08E-05 | 1.13E-05 | 1.12E-05 |
| TEEN    | 1.13E-05 | 1.13E-05 | 2.79E-07 | 1.14E-05 | 1.14E-05 | 3.55E-05 | 1.14E-05 | 1.12E-05 |
| CHILD   | 1.00E-05 | 9.96E-06 | 3.11E-07 | 1.01E-05 | 1.01E-05 | 3.69E-05 | 1.01E-05 | 9.95E-06 |
| INFANT  | 5.76E-06 | 5.72E-06 | 1.03E-07 | 5.83E-06 | 5.81E-06 | 3.04E-05 | 5.93E-06 | 5.72E-06 |

FORT CALHOUN RECEPTORS IN ALL SECTORS 02-03-92  
 SPECIAL LOCA # 3 VEG  
 AT 3.78 MILES NNE

TABLE VII-A-3

BETA AIR DOSE = 2.50E-03 MILLRADS  
 GAMMA AIR DOSE = 8.66E-04 MILLRADS

| PATHWAY | T. BODY  | GI-TRACT | BONE     | LIVER    | KIDNEY   | THYROID  | LUNG     | SKIN     |
|---------|----------|----------|----------|----------|----------|----------|----------|----------|
| PLUME   | 5.08E-04 | 5.08E-04 | 5.08E-04 | 5.08E-04 | 5.08E-04 | 5.08E-04 | 5.33E-04 | 1.43E-03 |
| GROUND  | 1.71E-07 | 1.71E-07 | 1.71E-07 | 1.71E-07 | 1.71E-07 | 1.71E-07 | 1.71E-07 | 1.99E-07 |
| VEGET   |          |          |          |          |          |          |          |          |
| ADULT   | 5.25E-06 | 5.06E-06 | 7.70E-07 | 5.25E-06 | 5.11E-06 | 1.93E-05 | 5.04E-06 | 4.99E-06 |
| TEEN    | 6.00E-06 | 5.79E-06 | 1.02E-06 | 6.09E-06 | 5.86E-06 | 1.76E-05 | 5.81E-06 | 5.71E-06 |
| CHILD   | 9.27E-06 | 8.90E-06 | 1.94E-06 | 9.49E-06 | 9.06E-06 | 2.68E-05 | 9.01E-06 | 8.34E-06 |

FORT CALHOUN RECEPTORS IN ALL SECTORS 02-03-92  
 SPECIAL LOCA # 4 PORK  
 AT 4.69 MILES NNE

TABLE VII-A-4

BETA AIR DOSE = 1.66E-03 MILLRADS  
 GAMMA AIR DOSE = 5.70E-04 MILLRADS

| PATHWAY | T. BODY  | GI-TRACT | BONE     | LIVER    | KIDNEY   | THYROID  | LUNG     | SKIN     |
|---------|----------|----------|----------|----------|----------|----------|----------|----------|
| PLUME   | 3.34E-04 | 3.34E-04 | 3.34E-04 | 3.34E-04 | 3.34E-04 | 3.34E-04 | 3.50E-04 | 9.41E-04 |
| GROUND  | 1.11E-07 | 1.11E-07 | 1.11E-07 | 1.11E-07 | 1.11E-07 | 1.11E-07 | 1.11E-07 | 1.29E-07 |
| MEAT    |          |          |          |          |          |          |          |          |
| ADULT   | 4.98E-07 | 5.07E-07 | 8.64E-08 | 5.39E-07 | 4.86E-07 | 1.61E-06 | 5.06E-07 | 4.77E-07 |
| TEEN    | 2.99E-07 | 3.03E-07 | 6.95E-08 | 3.36E-07 | 2.92E-07 | 1.10E-06 | 3.12E-07 | 2.84E-07 |
| CHILD   | 3.67E-07 | 3.55E-07 | 1.31E-07 | 4.17E-07 | 3.53E-07 | 1.58E-06 | 3.79E-07 | 3.44E-07 |

BETA AIR DOSE = 1.69E-02 MILLRADS  
 GAMMA AIR DOSE = 5.97E-03 MILLRADS  
 TABLE VII-A-5

| PATHWAY | T. BODY  | GI-TRACT | BONE     | LIVER    | KIDNEY   | THYROID  | LUNG     | SKIN     |
|---------|----------|----------|----------|----------|----------|----------|----------|----------|
| PLUME   | 3.51E-03 | 3.51E-03 | 3.51E-03 | 3.51E-03 | 3.51E-03 | 3.51E-03 | 3.68E-03 | 9.76E-03 |
| GROUND  | 1.17E-06 | 1.17E-06 | 1.17E-06 | 1.17E-06 | 1.17E-06 | 1.17E-06 | 1.17E-06 | 1.37E-06 |
| INHAL   |          |          |          |          |          |          |          |          |
| ADULT   | 1.86E-05 | 1.85E-05 | 3.93E-07 | 1.87E-05 | 1.87E-05 | 5.13E-05 | 1.86E-05 | 1.85E-05 |
| TEEN    | 1.87E-05 | 1.86E-05 | 4.69E-07 | 1.88E-05 | 1.89E-05 | 5.90E-05 | 1.89E-05 | 1.86E-05 |
| CHILD   | 1.66E-05 | 1.65E-05 | 5.23E-07 | 1.67E-05 | 1.67E-05 | 6.15E-05 | 1.67E-05 | 1.65E-05 |
| INFANT  | 9.53E-06 | 9.47E-06 | 2.74E-07 | 9.64E-06 | 9.62E-06 | 5.07E-05 | 9.64E-06 | 9.46E-06 |



TABLE VII-A-6

BETA AIR DOSE = 3.18E-03 MILLRADS  
 GAMMA AIR DOSE = 1.10E-03 MILLRADS

| PATHWAY | T. BODY  | GI-TRACT | BONE     | LIVER    | KIDNEY   | THYROID  | LUNG     | SKIN     |
|---------|----------|----------|----------|----------|----------|----------|----------|----------|
| PLUME   | 6.47E-04 | 6.47E-04 | 6.47E-04 | 6.47E-04 | 6.47E-04 | 6.47E-04 | 6.78E-04 | 1.81E-03 |
| GROUND  | 1.70E-07 | 1.70E-07 | 1.70E-07 | 1.70E-07 | 1.70E-07 | 1.70E-07 | 1.70E-07 | 1.99E-07 |
| VEGET   |          |          |          |          |          |          |          |          |
| ADULT   | 6.59E-06 | 6.39E-06 | 7.68E-07 | 6.58E-06 | 6.45E-06 | 2.06E-05 | 6.38E-06 | 6.32E-06 |
| TEEN    | 7.53E-06 | 7.32E-06 | 1.01E-06 | 7.62E-06 | 7.38E-06 | 1.91E-05 | 7.34E-06 | 7.24E-06 |
| CHILD   | 1.16E-05 | 1.13E-05 | 1.93E-06 | 1.19E-05 | 1.14E-05 | 2.91E-05 | 1.14E-05 | 1.12E-05 |

FORT CALHOUN RECEPTORS IN ALL SECTORS 02-03-92  
 SPECIAL LOCAL # 7 RES. VEG  
 AT 4.75 MILES ENE

TABLE VII-A-7

BETA AIR DOSE = 1.92E-03 MILLRADS  
 GAMMA AIR DOSE = 6.54E-04 MILLRADS

| PATHWAY | T. BODY  | GI-TRACT | BONE     | LIVER    | KIDNEY   | THYROID  | LUNG     | SKIN     |
|---------|----------|----------|----------|----------|----------|----------|----------|----------|
| ELUME   | 3.83E-04 | 3.83E-04 | 3.83E-04 | 3.83E-04 | 3.83E-04 | 3.83E-04 | 4.02E-04 | 1.08E-03 |
| GROUND  | 5.50E-08 | 5.50E-08 | 5.50E-08 | 5.50E-08 | 5.50E-08 | 5.50E-08 | 5.50E-08 | 6.42E-08 |
| VEGET   |          |          |          |          |          |          |          |          |
| ADULT   | 3.95E-06 | 3.88E-06 | 2.48E-07 | 3.94E-06 | 3.90E-06 | 8.45E-06 | 3.88E-06 | 3.86E-06 |
| TEEN    | 4.51E-06 | 4.45E-06 | 3.28E-07 | 4.54E-06 | 4.47E-06 | 8.22E-06 | 4.45E-06 | 4.42E-06 |
| CHILD   | 6.96E-06 | 6.86E-06 | 6.25E-07 | 7.05E-06 | 6.91E-06 | 1.26E-05 | 6.90E-06 | 6.85E-06 |
| INHAL   |          |          |          |          |          |          |          |          |
| ADULT   | 2.15E-06 | 2.14E-06 | 4.07E-08 | 2.16E-06 | 2.16E-06 | 5.69E-06 | 2.15E-06 | 2.14E-06 |
| TEEN    | 2.16E-06 | 2.16E-06 | 4.87E-08 | 2.18E-06 | 2.18E-06 | 6.53E-06 | 2.18E-06 | 2.15E-06 |
| CHILD   | 1.92E-06 | 1.90E-06 | 5.44E-08 | 1.93E-06 | 1.93E-06 | 6.78E-06 | 1.93E-06 | 1.90E-06 |
| INFANT  | 1.10E-06 | 1.09E-06 | 2.87E-08 | 1.11E-06 | 1.11E-06 | 5.55E-06 | 1.11E-06 | 1.09E-06 |

FORT CALHOUN RECEPTORS IN ALL SECTORS 02-03-92  
 SPECIAL LOCAL # 8 RES  
 AT 4.67 MILES E

BETA AIR DOSE = 2.76E-03 MILLRADS  
 GAMMA AIR DOSE = 9.45E-04 MILLRADS  
 TABLE VII-A-8

| PATHWAY | T. BODY  | GI-TRACT | BONE     | LIVER    | KIDNEY   | THYROID  | LUNG     | SKIN     |
|---------|----------|----------|----------|----------|----------|----------|----------|----------|
| PLUME   | 5.53E-04 | 5.53E-04 | 5.53E-04 | 5.53E-04 | 5.53E-04 | 5.53E-04 | 5.81E-04 | 1.56E-03 |
| GROUND  | 9.32E-08 | 9.32E-08 | 9.32E-08 | 9.32E-08 | 9.32E-08 | 9.32E-08 | 9.32E-08 | 1.09E-07 |
| INHAL   |          |          |          |          |          |          |          |          |
| ADULT   | 3.08E-06 | 3.07E-06 | 5.83E-08 | 3.09E-06 | 3.09E-06 | 8.16E-06 | 3.09E-06 | 3.06E-06 |
| TEEN    | 3.10E-06 | 3.09E-06 | 6.97E-08 | 3.12E-06 | 3.12E-06 | 9.56E-06 | 3.12E-06 | 3.08E-06 |
| CHILD   | 2.74E-06 | 2.73E-06 | 7.79E-08 | 2.76E-06 | 2.76E-06 | 9.73E-06 | 2.76E-06 | 2.73E-06 |
| INFANT  | 1.58E-06 | 1.57E-06 | 4.11E-08 | 1.59E-06 | 1.59E-06 | 7.96E-06 | 1.59E-06 | 1.57E-06 |

FORT CALHOUN RECEPTORS IN ALL SECTORS 02-03-92  
 SPECIAL LOCA # 9 VEG  
 AT 4.92 MILES E

BETA AIR DOSE = 2.52E-03 MILLRADS  
 GAMMA AIR DOSE = 8.63E-04 MILLRADS

TABLE VII-A-9

| PATHWAY | T. BODY  | GI-TRACT | BONE     | LIVER    | KIDNEY   | THYROID  | LUNG     | SKIN     |
|---------|----------|----------|----------|----------|----------|----------|----------|----------|
| PLUME   | 5.05E-04 | 5.05E-04 | 5.05E-04 | 5.05E-04 | 5.05E-04 | 5.05E-04 | 5.30E-04 | 1.43E-03 |
| GROUND  | 8.37E-06 | 8.37E-06 | 8.37E-06 | 8.37E-06 | 8.37E-06 | 8.37E-06 | 8.37E-06 | 9.78E-06 |
| VEGET   |          |          |          |          |          |          |          |          |
| ADULT   | 5.18E-06 | 5.08E-06 | 3.78E-07 | 5.18E-06 | 5.11E-06 | 1.20E-05 | 5.08E-06 | 5.05E-06 |
| TEEN    | 5.92E-06 | 5.82E-06 | 4.99E-07 | 5.97E-06 | 5.85E-06 | 1.18E-05 | 5.83E-06 | 5.78E-06 |
| CHILD   | 9.16E-06 | 8.98E-06 | 9.52E-07 | 9.27E-06 | 9.06E-06 | 1.77E-05 | 9.03E-06 | 8.95E-06 |

FORT CALHOUN RECEPTORS IN ALL SECTORS 02-03-92  
 SPECIAL LOCAL # 10 RES  
 AT 4.18 MILES ESE

TABLE VII-A-10

BETA AIR DOSE = 3.11E-03 MILLRADS  
 GAMMA AIR DOSE = 1.07E-03 MILLRADS

| PATHWAY | T. BODY  | GI-TRACT | BONE     | LIVER    | KIDNEY   | THYROID  | LUNG     | SKIN     |
|---------|----------|----------|----------|----------|----------|----------|----------|----------|
| PLUME   | 6.30E-04 | 6.30E-04 | 6.30E-04 | 6.30E-04 | 6.30E-04 | 6.30E-04 | 6.61E-04 | 1.77E-03 |
| GROUND  | 1.31E-07 | 1.31E-07 | 1.31E-07 | 1.31E-07 | 1.31E-07 | 1.31E-07 | 1.31E-07 | 1.53E-07 |
| INHAL   |          |          |          |          |          |          |          |          |
| ADULT   | 3.45E-06 | 3.44E-06 | 6.60E-08 | 3.46E-06 | 3.47E-06 | 9.20E-06 | 3.46E-06 | 3.43E-06 |
| TEEN    | 3.47E-06 | 3.46E-06 | 7.90E-08 | 3.49E-06 | 3.50E-06 | 1.06E-05 | 3.50E-06 | 3.46E-06 |
| CHILD   | 3.07E-06 | 3.06E-06 | 8.82E-08 | 3.09E-06 | 3.10E-06 | 1.10E-05 | 3.09E-06 | 3.06E-06 |
| INFANT  | 1.77E-06 | 1.76E-06 | 4.66E-08 | 1.79E-06 | 1.78E-06 | 8.99E-06 | 1.79E-06 | 1.76E-06 |

FORT CALHOUN RECEPTORS IN ALL SECTORS 02-03-92  
 SPECIAL LOCA # 11 RES. VEG  
 AT 1.68 MILES SE

BETA AIR DOSE = 1.97E-02 MILLRADS  
 GAMMA AIR DOSE = 6.96E-03 MILLRADS

TABLE VII-A-11

| PATHWAY | T. BODY  | GI-TRACT | BONE     | LIVER    | KIDNEY   | THYROID  | LUNG     | SKIN     |
|---------|----------|----------|----------|----------|----------|----------|----------|----------|
| PLUME   | 4.09E-03 | 4.09E-03 | 4.09E-03 | 4.09E-03 | 4.09E-03 | 4.09E-03 | 4.29E-03 | 1.14E-02 |
| GROUND  | 2.04E-06 | 2.04E-06 | 2.04E-06 | 2.04E-06 | 2.04E-06 | 2.04E-06 | 2.04E-06 | 2.38E-06 |
| VEGET   |          |          |          |          |          |          |          |          |
| ADULT   | 4.20E-05 | 3.97E-05 | 9.19E-06 | 4.19E-05 | 4.03E-05 | 2.11E-04 | 3.95E-05 | 3.88E-05 |
| TEEN    | 4.79E-05 | 4.54E-05 | 1.21E-05 | 4.90E-05 | 4.62E-05 | 1.87E-04 | 4.57E-05 | 4.44E-05 |
| CHILD   | 7.39E-05 | 6.96E-05 | 2.31E-05 | 7.65E-05 | 7.14E-05 | 2.85E-04 | 7.08E-05 | 6.88E-05 |
| INHAL   |          |          |          |          |          |          |          |          |
| ADULT   | 2.16E-05 | 2.15E-05 | 4.54E-07 | 2.17E-05 | 2.17E-05 | 5.96E-05 | 2.17E-05 | 2.15E-05 |
| TEEN    | 2.18E-05 | 2.17E-05 | 5.42E-07 | 2.19E-05 | 2.19E-05 | 6.85E-05 | 2.19E-05 | 2.16E-05 |
| CHILD   | 1.93E-05 | 1.92E-05 | 6.04E-07 | 1.94E-05 | 1.94E-05 | 7.14E-05 | 1.94E-05 | 1.91E-05 |
| INFANT  | 1.11E-05 | 1.10E-05 | 3.17E-07 | 1.12E-05 | 1.12E-05 | 5.87E-05 | 1.12E-05 | 1.10E-05 |

COCKS IN ALL SECTORS 02-03-92  
 AT 4.74 MILES SE

BETA AIR DOSE = 2.45E-03 MILLRADS  
 GAMMA AIR DOSE = 8.47E-04 MILLRADS

TABLE VII-A-12

| PATHWAY | T. BODY  |          |          |          |          |          |          |          |
|---------|----------|----------|----------|----------|----------|----------|----------|----------|
|         | T. BODY  | TRACT    | BONE     | LIVER    | KIDNEY   | THYROID  | LUNG     | SKIN     |
| PLUME   | 4.97E-04 | C-04     | 4.97E-04 | 4.97E-04 | 4.97E-04 | 4.97E-04 | 5.21E-04 | 1.40E-03 |
| GROUND  | 1.89E-07 | 1.89E-07 | 1.89E-07 | 1.89E-07 | 1.89E-07 | 1.89E-07 | 1.89E-07 | 2.21E-07 |
| MEAT    | 7.37E-07 | 7.53E-07 | 1.47E-07 | 8.09E-07 | 7.17E-07 | 2.63E-06 | 7.51E-07 | 7.02E-07 |
| TEEN    | 4.44E-07 | 4.51E-07 | 1.19E-07 | 5.07E-07 | 4.31E-07 | 1.82E-06 | 4.65E-07 | 4.19E-07 |
| CHILD   | 5.45E-07 | 5.25E-07 | 2.23E-07 | 6.31E-07 | 5.22E-07 | 2.62E-06 | 5.65E-07 | 5.06E-07 |

FORT CALHOUN RECEPTORS IN ALL SECTORS 02-03-92  
 SPECIAL LOCA # 13 RES. VEG  
 AT 0.88 MILES SSE

BETA AIR DOSE = 6.21E-02 MILLRADS  
 GAMMA AIR DOSE = 2.22E-02 MILLRADS

TABLE VII-A-13

| PATHWAY | T. BODY  | GI-TRACT | BONE     | LIVER    | KIDNEY   | THYROID  | LUNG     | SKIN     |
|---------|----------|----------|----------|----------|----------|----------|----------|----------|
| PLUME   | 1.31E-02 | 1.31E-02 | 1.31E-02 | 1.31E-02 | 1.31E-02 | 1.31E-02 | 1.37E-02 | 3.61E-02 |
| GROUND  | 1.20E-05 | 1.20E-05 | 1.20E-05 | 1.20E-05 | 1.20E-05 | 1.20E-05 | 1.20E-05 | 1.41E-05 |
| VEGET   |          |          |          |          |          |          |          |          |
| ADULT   | 1.40E-04 | 1.27E-04 | 5.44E-05 | 1.40E-04 | 1.30E-04 | 1.14E-03 | 1.26E-04 | 1.22E-04 |
| TEEN    | 1.60E-04 | 1.45E-04 | 7.18E-05 | 1.66E-04 | 1.50E-04 | 9.83E-04 | 1.47E-04 | 1.39E-04 |
| CHILD   | 2.46E-04 | 2.20E-04 | 1.37E-04 | 2.61E-04 | 2.31E-04 | 1.49E-03 | 2.27E-04 | 2.16E-04 |
| INHAL   |          |          |          |          |          |          |          |          |
| ADULT   | 6.78E-05 | 6.75E-05 | 1.47E-06 | 6.80E-05 | 6.81E-05 | 1.89E-04 | 6.80E-05 | 6.74E-05 |
| TEEN    | 6.83E-05 | 6.79E-05 | 1.76E-06 | 6.87E-05 | 6.88E-05 | 2.18E-04 | 6.88E-05 | 6.78E-05 |
| CHILD   | 6.04E-05 | 6.00E-05 | 1.96E-06 | 6.08E-05 | 6.09E-05 | 2.27E-04 | 6.08E-05 | 6.00E-05 |
| INFANT  | 3.47E-05 | 3.45E-05 | 1.03E-06 | 3.51E-05 | 3.51E-05 | 1.87E-04 | 3.52E-05 | 3.45E-05 |



FORT CALHOUN RECEPTORS IN ALL SECTORS 02-03-92  
 SPECIAL LOCA # 14 BEEF  
 AT 1.81 MILES SSE

TABLE VII-A-14

BETA AIR DOSE = 1.13E-02 MILLRADS  
 GAMMA AIR DOSE = 4.02E-03 MILLRADS

| PATHWAY | T. BODY  | GI-TRACT | BONE     | LIVER    | KIDNEY   | THYROID  | LUNG     | SKIN     |
|---------|----------|----------|----------|----------|----------|----------|----------|----------|
| PLUME   | 2.36E-03 | 2.36E-03 | 2.36E-03 | 2.36E-03 | 2.36E-03 | 2.36E-03 | 2.48E-03 | 6.56E-03 |
| GROUND  | 1.80E-06 | 1.80E-06 | 1.80E-06 | 1.80E-06 | 1.80E-06 | 1.80E-06 | 1.80E-06 | 2.10E-06 |
| MEAT    |          |          |          |          |          |          |          |          |
| ADULT   | 3.55E-06 | 3.69E-06 | 1.40E-06 | 4.23E-06 | 3.36E-06 | 2.17E-05 | 3.68E-06 | 3.21E-06 |
| TEEN    | 2.15E-06 | 2.22E-06 | 1.13E-06 | 2.76E-06 | 2.03E-06 | 1.53E-05 | 2.36E-06 | 1.91E-06 |
| CHILD   | 2.69E-06 | 2.50E-06 | 2.12E-06 | 3.50E-06 | 2.47E-06 | 2.25E-05 | 2.88E-06 | 2.31E-06 |

FORT CALHOUN RECEPTORS IN ALL SECTORS 02-03-92  
 SPECIAL LOCATION # 15 RES  
 AT 0.72 MILES S

BETA AIR DOSE = 7.90E-02 MILLRADS  
 GAMMA AIR DOSE = 2.82E-02 MILLRADS

TABLE VII-A-15

| PATHWAY | T.BODY   | GI-TRACT | BONE     | LIVER    | KIDNEY   | THYROID  | LUNG     | SKIN     |
|---------|----------|----------|----------|----------|----------|----------|----------|----------|
| PLUME   | 1.66E-02 | 1.66E-02 | 1.66E-02 | 1.66E-02 | 1.66E-02 | 1.66E-02 | 1.74E-02 | 4.59E-02 |
| GROUND  | 1.19E-05 | 1.19E-05 | 1.19E-05 | 1.19E-05 | 1.19E-05 | 1.19E-05 | 1.19E-05 | 1.39E-05 |
| INHAL   |          |          |          |          |          |          |          |          |
| ADULT   | 8.63E-05 | 8.59E-05 | 1.90E-06 | 8.66E-05 | 8.67E-05 | 2.42E-04 | 8.65E-05 | 8.58E-05 |
| TEEN    | 8.69E-05 | 8.65E-05 | 2.26E-06 | 8.74E-05 | 8.75E-05 | 2.78E-04 | 8.76E-05 | 8.63E-05 |
| CHILD   | 7.69E-05 | 7.64E-05 | 2.52E-06 | 7.74E-05 | 7.75E-05 | 2.90E-04 | 7.75E-05 | 7.63E-05 |
| INFANT  | 4.42E-05 | 4.39E-05 | 1.32E-06 | 4.47E-05 | 4.46E-05 | 2.39E-04 | 4.48E-05 | 4.39E-05 |

FORT CALHOUN RECEPTORS IN ALL SECTORS 02-03-92  
 SPECIAL LOG # 16 BEEF, VEG  
 AT 1.98 MILES S

TABLE VII-A-16

BETA AIR DOSE = 7.78E-03 MILLRADS  
 GAMMA AIR DOSE = 2.75E-03 MILLRADS

| PATHWAY     | T. BODY  | GI-TRACT | BONE     | LIVER    | KIDNEY   | THYROID  | LUNG     | SKIN     |
|-------------|----------|----------|----------|----------|----------|----------|----------|----------|
| PLUME       | 1.62E-03 | 1.62E-03 | 1.62E-03 | 1.62E-03 | 1.62E-03 | 1.62E-03 | 1.70E-03 | 4.50E-03 |
| GROUND      | 9.20E-07 | 9.20E-07 | 9.20E-07 | 9.20E-07 | 9.20E-07 | 9.20E-07 | 9.20E-07 | 1.07E-06 |
| VEGET ADULT | 1.68E-05 | 1.57E-05 | 4.15E-06 | 1.67E-05 | 1.60E-05 | 9.29E-05 | 1.56E-05 | 1.53E-05 |
| TEEN        | 1.91E-05 | 1.80E-05 | 5.48E-06 | 1.96E-05 | 1.83E-05 | 8.19E-05 | 1.81E-05 | 1.75E-05 |
| CHILD       | 2.95E-05 | 2.75E-05 | 1.05E-05 | 3.06E-05 | 2.83E-05 | 1.25E-04 | 2.80E-05 | 2.72E-05 |
| MEAT ADULT  | 2.38E-06 | 2.45E-06 | 7.17E-07 | 2.72E-06 | 2.28E-06 | 1.17E-05 | 2.44E-06 | 2.20E-06 |
| TEEN        | 1.43E-06 | 1.47E-06 | 5.77E-07 | 1.74E-06 | 1.37E-06 | 8.16E-06 | 1.54E-06 | 1.31E-06 |
| CHILD       | 1.78E-06 | 1.68E-06 | 1.09E-06 | 2.20E-06 | 1.66E-06 | 1.19E-05 | 1.88E-06 | 1.59E-06 |

FORT CALHOUN RECEPTORS IN ALL SECTORS 02-03-92  
 SPECIAL LOCAL # 1 COW  
 AT 2.74 MILES S

BEYA AIR DOSE = 3.88E-03 MILLRADS  
 GAMMA AIR DOSE = 1.37E-03 MILLRADS

TABLE VII-17

| PATHWAY  | T. BODY  | GI-TRACT | BONE     | LIVER    | KIDNEY   | THYROID  | LUNG     | SKIN     |
|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| PLUME    | 8.05E-04 | 8.05E-04 | 8.05E-04 | 8.05E-04 | 8.05E-04 | 8.05E-04 | 8.44E-04 | 2.24E-03 |
| GROUND   | 4.33E-07 | 4.33E-07 | 4.33E-07 | 4.33E-07 | 4.33E-07 | 4.33E-07 | 4.33E-07 | 5.06E-07 |
| COW MILK |          |          |          |          |          |          |          |          |
| ADULT    | 2.85E-06 | 2.64E-06 | 3.70E-07 | 3.01E-06 | 2.98E-06 | 6.40E-05 | 2.61E-06 | 2.58E-06 |
| TEEN     | 3.70E-06 | 3.44E-06 | 6.49E-07 | 4.12E-06 | 4.07E-06 | 1.01E-04 | 3.42E-06 | 3.36E-06 |
| CHILD    | 5.78E-06 | 5.37E-06 | 1.51E-06 | 6.63E-06 | 6.49E-06 | 1.97E-04 | 5.41E-06 | 5.31E-06 |
| INFANT   | 8.82E-06 | 8.11E-06 | 2.61E-06 | 1.09E-05 | 1.01E-05 | 4.75E-04 | 6.23E-06 | 6.05E-06 |

FORT CALHOUN RECEPTORS IN ALL SECTORS 02-03-92  
 SPECIAL LOCAL # 2 RES  
 AT 0.63 MILES SSW

BETA AIR DOSE = 4.56E-02 MILLRADS  
 GAMMA AIR DOSE = 1.63E-02 MILLRADS

TABLE VII-A-18

| PATHWAY | T. BODY  | GI-TRACT | BONE     | LIVER    | KIDNEY   | THYROID  | LUNG     | SKIN     |
|---------|----------|----------|----------|----------|----------|----------|----------|----------|
| PLUME   | 9.62E-03 | 9.62E-03 | 9.62E-03 | 9.62E-03 | 9.62E-03 | 9.62E-03 | 1.01E-02 | 2.66E-02 |
| GROUND  | 4.57E-07 | 4.57E-07 | 4.57E-07 | 4.57E-07 | 4.57E-07 | 4.57E-07 | 4.57E-07 | 5.34E-07 |
| INHAL   |          |          |          |          |          |          |          |          |
| ADULT   | 4.98E-05 | 4.96E-05 | 1.10E-06 | 4.99E-05 | 5.00E-05 | 1.40E-04 | 4.99E-05 | 4.95E-05 |
| TEEN    | 5.01E-05 | 4.99E-05 | 1.32E-06 | 5.04E-05 | 5.05E-05 | 1.61E-04 | 5.05E-05 | 4.98E-05 |
| CHILD   | 4.43E-05 | 4.41E-05 | 1.47E-06 | 4.46E-05 | 4.47E-05 | 1.68E-04 | 4.47E-05 | 4.40E-05 |
| INFANT  | 2.55E-05 | 2.53E-05 | 7.66E-07 | 2.58E-05 | 2.57E-05 | 1.39E-04 | 2.58E-05 | 2.53E-05 |

BETA AIR DOSE = 4.41E-02 MILLRADS  
 GAMMA AIR DOSE = 1.57E-02 MILLRADS

TABLE VII-A-19

| PATHWAY | T. BODY  | GI-TRACT | BONE     | LIVER    | KIDNEY   | THYROID  | LUNG     | SKIN     |
|---------|----------|----------|----------|----------|----------|----------|----------|----------|
| P. HIVE | 9.27E-03 | 9.27E-03 | 9.27E-03 | 9.27E-03 | 9.27E-03 | 9.27E-03 | 9.71E-03 | 2.56E-02 |
| SP. ND  | 4.49E-07 | 4.49E-07 | 4.49E-07 | 4.49E-07 | 4.49E-07 | 4.49E-07 | 4.49E-07 | 5.25E-07 |
| VEGET   |          |          |          |          |          |          |          |          |
| ADULT   | 8.73E-05 | 8.68E-05 | 2.03E-06 | 8.73E-05 | 8.69E-05 | 1.25E-04 | 8.67E-05 | 8.66E-05 |
| TEEN    | 9.99E-05 | 9.94E-05 | 2.68E-06 | 1.00E-04 | 9.95E-05 | 1.31E-04 | 9.94E-05 | 9.91E-05 |
| CHILD   | 1.55E-04 | 1.54E-04 | 5.11E-06 | 1.55E-04 | 1.54E-04 | 2.01E-04 | 1.54E-04 | 1.54E-04 |

FORT CALHOUN RE. EPTORS IN ALL SECTORS 02-03-92  
 SPECIAL LCCA # 4 BEEF  
 AT 2.00 MILES SSW

BETA AIR DOSE = 3.53E-03 MILLRADS  
 GAMMA AIR DOSE = 1.26E-03 MILLRADS

TABLE VII-A-20

| PATHWAY | T. BODY  | GI-TRACT | BONE     | LIVER    | KIDNEY   | THYROID  | LUNG     | SKIN     |
|---------|----------|----------|----------|----------|----------|----------|----------|----------|
| PLUME   | 7.39E-04 | 7.39E-04 | 7.39E-04 | 7.39E-04 | 7.39E-04 | 7.39E-04 | 7.74E-04 | 2.05E-03 |
| GROUND  | 5.02E-07 | 5.02E-07 | 5.02E-07 | 5.02E-07 | 5.02E-07 | 5.02E-07 | 5.02E-07 | 5.87E-07 |
| MEAT    |          |          |          |          |          |          |          |          |
| ADULT   | 1.09E-06 | 1.13E-06 | 3.92E-07 | 1.28E-06 | 1.04E-06 | 6.16E-06 | 1.13E-06 | 9.96E-07 |
| TEEN    | 6.60E-07 | 6.79E-07 | 3.15E-07 | 8.29E-07 | 6.28E-07 | 4.34E-06 | 7.18E-07 | 5.94E-07 |
| CHILD   | 8.22E-07 | 7.70E-07 | 5.93E-07 | 1.05E-06 | 1.60E-07 | 6.37E-06 | 8.76E-07 | 7.17E-07 |

FORT CALHOUN RECEPTORS IN ALL SECTORS 02-03-92  
 SPECIAL LOCA # 5 RES  
 AT 0.72 MILES SW

BETA AIR DOSE = 4.04E-02 MILLRADS  
 GAMMA AIR DOSE = 1.44E-02 MILLRADS

TABLE VII-A-21

| PATHWAY | T. BODY  | GI-TRACT | BONE     | LIVER    | KIDNEY   | THYROID  | LUNG     | SKIN     |
|---------|----------|----------|----------|----------|----------|----------|----------|----------|
| PLUME   | 8.48E-03 | 8.48E-03 | 8.48E-03 | 8.48E-03 | 8.48E-03 | 8.48E-03 | 8.88E-03 | 2.35E-02 |
| GROUND  | 7.92E-07 | 7.92E-07 | 7.92E-07 | 7.92E-07 | 7.92E-07 | 7.92E-07 | 7.92E-07 | 9.25E-07 |
| INHAL   |          |          |          |          |          |          |          |          |
| ADULT   | 4.42E-05 | 4.40E-05 | 9.71E-07 | 4.43E-05 | 4.44E-05 | 1.24E-04 | 4.43E-05 | 4.39E-05 |
| TEEN    | 4.45E-05 | 4.43E-05 | 1.16E-06 | 4.48E-05 | 4.48E-05 | 1.42E-04 | 4.48E-05 | 4.42E-05 |
| CHILD   | 3.94E-05 | 3.91E-05 | 1.29E-06 | 3.96E-05 | 3.97E-05 | 1.49E-04 | 3.97E-05 | 3.91E-05 |
| INFANT  | 2.26E-05 | 2.25E-05 | 6.75E-07 | 2.29E-05 | 2.29E-05 | 1.23E-04 | 2.29E-05 | 2.25E-05 |



FORT CALHOUN RECEPTORS IN ALL SECTORS 02-03-92  
 SPECIAL LOCA # 6 BEEF  
 AT 0.82 MILES SW

BETA AIR DOSE = 3.02E-02 MILLRADS  
 GAMMA AIR DOSE = 1.08E-02 MILLRADS

TABLE VII-A-22

| PATHWAY | T. BODY  | GI-TRACT | BONE     | LIVER    | KIDNEY   | THYROID  | LUNG     | SKIN     |
|---------|----------|----------|----------|----------|----------|----------|----------|----------|
| PLUME   | 6.36E-03 | 6.36E-03 | 6.36E-03 | 6.36E-03 | 6.36E-03 | 6.36E-03 | 6.66E-03 | 1.76E-02 |
| GROUND  | 3.33E-06 | 3.33E-06 | 3.33E-06 | 3.33E-06 | 3.33E-06 | 3.33E-06 | 3.33E-06 | 3.92E-06 |
| MEAT    |          |          |          |          |          |          |          |          |
| ADULT   | 9.15E-06 | 9.42E-06 | 2.60E-06 | 1.04E-05 | 8.79E-06 | 4.28E-05 | 9.39E-06 | 8.52E-06 |
| TEEN    | 5.52E-06 | 5.64E-06 | 2.09E-06 | 6.64E-06 | 5.30E-06 | 2.99E-05 | 5.90E-06 | 5.08E-06 |
| CHILD   | 6.83E-06 | 6.48E-06 | 3.94E-06 | 8.35E-06 | 6.42E-06 | 4.37E-05 | 7.19E-06 | 6.14E-06 |

FORT CALHOUN RECEPTORS IN ALL SECTORS 02-03-92  
 SPECIAL LOCA # 7 VEG  
 AT 1.39 MILES SW

BETA AIR DOSE = 8.83E-03 MILLRADS  
 GAMMA AIR DOSE = 3.13E-03 MILLRADS

TABLE VII-A-23

| PATHWAY | T. BODY  | GI-TRACT | BONE     | LIVER    | KIDNEY   | THYROID  | LUNG     | SKIN     |
|---------|----------|----------|----------|----------|----------|----------|----------|----------|
| AIR     | 1.84E-03 | 1.84E-03 | 1.84E-03 | 1.84E-03 | 1.84E-03 | 1.84E-03 | 1.93E-03 | 5.11E-03 |
| GROUND  | 3.24E-08 | 3.24E-08 | 3.24E-08 | 3.24E-08 | 3.24E-08 | 3.24E-08 | 3.24E-08 | 3.79E-08 |
| VEGET   |          |          |          |          |          |          |          |          |
| ADULT   | 1.74E-05 | 1.74E-05 | 1.46E-07 | 1.74E-05 | 1.74E-05 | 2.01E-05 | 1.74E-05 | 1.74E-05 |
| TEEN    | 1.99E-05 | 1.99E-05 | 1.93E-07 | 1.99E-05 | 1.99E-05 | 2.21E-05 | 1.99E-05 | 1.99E-05 |
| CHILD   | 3.09E-05 | 3.08E-05 | 3.69E-07 | 3.09E-05 | 3.08E-05 | 3.42E-05 | 3.08E-05 | 3.08E-05 |

FORT CALHOUN RECEPTORS IN ALL SECTORS 02-03-92  
 SPECIAL LOC # B RES, VEG  
 AT 1.01 MILES WSW

TABLE VII-A-24

BETA AIR DOSE = 1.71E-02 MILLRADS  
 GAMMA AIR DOSE = 6.09E-03 MILLRADS

| PATHWAY | T. BODY  | GI-TRACT | BONE     | LIVER    | KIDNEY   | THYROID  | LUNG     | SKIN     |
|---------|----------|----------|----------|----------|----------|----------|----------|----------|
| PLUME   | 3.58E-03 | 3.58E-03 | 3.58E-03 | 3.58E-03 | 3.58E-03 | 3.58E-03 | 3.75E-03 | 9.92E-03 |
| GROUND  | 4.61E-08 | 4.61E-08 | 4.61E-08 | 4.61E-08 | 4.61E-08 | 4.61E-08 | 4.61E-08 | 5.39E-08 |
| VEGET   |          |          |          |          |          |          |          |          |
| ADULT   | 3.37E-05 | 3.36E-05 | 2.08E-07 | 3.37E-05 | 3.36E-05 | 2.75E-05 | 3.36E-05 | 3.36E-05 |
| TEEN    | 3.85E-05 | 3.85E-05 | 2.75E-07 | 3.86E-05 | 3.85E-05 | 4.17E-05 | 3.85E-05 | 3.85E-05 |
| CHILD   | 5.97E-05 | 5.96E-05 | 5.25E-07 | 5.97E-05 | 5.96E-05 | 6.45E-05 | 5.96E-05 | 5.96E-05 |
| INHAL   |          |          |          |          |          |          |          |          |
| ADULT   | 1.87E-05 | 1.86E-05 | 4.06E-07 | 1.88E-05 | 1.88E-05 | 5.21E-05 | 1.88E-05 | 1.96E-05 |
| TEEN    | 1.88E-05 | 1.88E-05 | 4.84E-07 | 1.90E-05 | 1.90E-05 | 6.00E-05 | 1.90E-05 | 1.87E-05 |
| CHILD   | 1.67E-05 | 1.66E-05 | 5.39E-07 | 1.68E-05 | 1.68E-05 | 6.26E-05 | 1.67E-05 | 1.66E-05 |
| INFANT  | 9.59E-06 | 9.53E-06 | 2.82E-07 | 9.71E-06 | 9.68E-06 | 5.16E-05 | 9.71E-06 | 9.52E-06 |

FORT CALHOUN RECEPTORS IN ALL SECTORS 07-03-92  
 SPECIAL LOCALITY # 9 BLEEF  
 AT 3.45 MILES WSW

BETA AIR DOSE = 1.23E-03 MILLRADS  
 GAMMA AIR DOSE = 4.33E-04 MILLRADS

TABLE VII-A-25

| PATHWAY | T. BODY  | G.I. TRACT | BONE     | LIVER    | KIDNEY   | THYROID  | LUNG     | SKIN     |
|---------|----------|------------|----------|----------|----------|----------|----------|----------|
| PLUME   | 2.54E-04 | 2.54E-04   | 2.54E-04 | 2.54E-04 | 2.54E-04 | 2.54E-04 | 2.66E-04 | 7.09E-04 |
| GROUND  | 9.17E-08 | 9.17E-08   | 9.17E-08 | 9.17E-08 | 9.17E-08 | 9.17E-08 | 9.17E-08 | 1.07E-07 |
| MEAT    |          |            |          |          |          |          |          |          |
| ADULT   | 3.68E-07 | 3.76E-07   | 7.15E-08 | 4.03E-07 | 3.58E-07 | 1.29E-06 | 3.75E-07 | 3.51E-07 |
| TEEN    | 2.21E-07 | 2.25E-07   | 5.76E-08 | 2.42E-07 | 2.15E-07 | 8.91E-07 | 2.32E-07 | 2.09E-07 |
| CHILD   | 2.72E-07 | 2.62E-07   | 1.08E-07 | 3.14E-07 | 2.61E-07 | 1.28E-06 | 2.82E-07 | 2.53E-07 |

FORT CALHOUN RECEPTORS IN ALL SECTORS 02-03-92  
 SPECIAL LOCA # 10 RES, VEG  
 AT 1.17 MILES W

BETA AIR DOSE = 1.28E-02 MILLRADS  
 GAMMA AIR DOSE = 4.55E-03 MILLRADS

TABLE VII-A-26

| PATHWAY | T. BODY  | GI-TRACT | BONE     | LIVER    | KIDNEY   | THYROID  | LUNG     | SKIN     |
|---------|----------|----------|----------|----------|----------|----------|----------|----------|
| PLUME   | 2.68E-03 | 2.68E-03 | 2.68E-03 | 2.68E-03 | 2.68E-03 | 2.68E-03 | 2.81E-03 | 7.43E-03 |
| GROUND  | 1.88E-06 | 1.88E-06 | 1.88E-06 | 1.88E-06 | 1.88E-06 | 1.88E-06 | 1.98E-06 | 2.20E-06 |
| VEGET   |          |          |          |          |          |          |          |          |
| ADULT   | 2.82E-05 | 2.60E-05 | 8.49E-06 | 2.81E-05 | 2.66E-05 | 1.84E-04 | 2.59E-05 | 2.52E-05 |
| TEEN    | 3.21E-05 | 2.98E-05 | 1.12E-05 | 3.31E-05 | 3.05E-05 | 1.60E-04 | 3.00E-05 | 2.89E-05 |
| CHILD   | 4.95E-05 | 4.54E-05 | 2.14E-05 | 5.19E-05 | 4.71E-05 | 2.44E-04 | 4.66E-05 | 4.48E-05 |
| INHAL   |          |          |          |          |          |          |          |          |
| ADULT   | 1.41E-05 | 1.40E-05 | 3.00E-07 | 1.41E-05 | 1.41E-05 | 3.90E-05 | 1.41E-05 | 1.40E-05 |
| TEEN    | 1.42E-05 | 1.41E-05 | 3.58E-07 | 1.42E-05 | 1.43E-05 | 4.48E-05 | 1.43E-05 | 1.41E-05 |
| CHILD   | 1.25E-05 | 1.25E-05 | 3.99E-07 | 1.26E-05 | 1.26E-05 | 4.67E-05 | 1.26E-05 | 1.24E-05 |
| INFANT  | 7.21E-06 | 7.16E-06 | 2.09E-07 | 7.29E-06 | 7.28E-06 | 3.85E-05 | 7.30E-06 | 7.16E-06 |

FORT CALHOUN RECEPTORS IN ALL SECTORS 02-03-92  
 SPECIAL LOCATION # 11 BEEF  
 AT 2.00 MILES W

BETA AIR DOSE = 3.60E-03 MILLRADS  
 GAMMA AIR DOSE = 1.27E-03 MILLRADS

TABLE VII-A-27

| PATHWAY | T. BODY  | GI-TRACT | BONE     | LIVER    | KIDNEY   | THYROID  | LUNG     | SKIN     |
|---------|----------|----------|----------|----------|----------|----------|----------|----------|
| PLUME   | 7.50E-04 | 7.50E-04 | 7.50E-04 | 7.50E-04 | 7.50E-04 | 7.50E-04 | 7.85E-04 | 2.08E-03 |
| GROUND  | 4.62E-07 | 4.62E-07 | 4.62E-07 | 4.62E-07 | 4.62E-07 | 4.62E-07 | 4.62E-07 | 5.40E-07 |
| MEAT    |          |          |          |          |          |          |          |          |
| ADULT   | 1.10E-06 | 1.14E-06 | 3.60E-07 | 1.28E-06 | 1.05E-06 | 5.26E-06 | 1.14E-06 | 1.02E-06 |
| TEEN    | 6.67E-07 | 6.85E-07 | 2.90E-07 | 8.23E-07 | 6.37E-07 | 4.04E-06 | 7.21E-07 | 6.06E-07 |
| CHILD   | 8.29E-07 | 7.81E-07 | 5.45E-07 | 1.04E-06 | 7.72E-07 | 5.92E-06 | 8.78E-07 | 7.33E-07 |

FORT CALHOUN RECEPTORS IN ALL SECTORS 02-03-92  
 SPECIAL LOCAL # 12 RES. VEG  
 AT 2.5 MILES WNW

BETA AIR DOSE = 5.98E-03 MILLRADS  
 GAMMA AIR DOSE = 2.12E-03 MILLRADS

TABLE VII-A-28

| PATHWAY | T. BODY  | GI-TRACT | BONE     | LIVER    | KIDNEY   | THYROID  | LUNG     | SKIN     |
|---------|----------|----------|----------|----------|----------|----------|----------|----------|
| PLUME   | 1.25E-03 | 1.25E-03 | 1.25E-03 | 1.25E-03 | 1.25E-03 | 1.25E-03 | 1.31E-03 | 3.46E-03 |
| GROUND  | 6.33E-07 | 6.33E-07 | 6.33E-07 | 6.33E-07 | 6.33E-07 | 6.33E-07 | 6.33E-07 | 7.40E-07 |
| VEGET   |          |          |          |          |          |          |          |          |
| ADULT   | 1.28E-05 | 1.20E-05 | 2.86E-06 | 1.27E-05 | 1.22E-05 | 6.52E-05 | 1.20E-05 | 1.18E-05 |
| TEEN    | 1.45E-05 | 1.38E-05 | 3.78E-06 | 1.49E-05 | 1.40E-05 | 5.78E-05 | 1.39E-05 | 1.35E-05 |
| CHILD   | 2.25E-05 | 2.11E-05 | 7.20E-06 | 2.33E-05 | 2.17E-05 | 8.80E-05 | 2.15E-05 | 2.09E-05 |
| INHAL   |          |          |          |          |          |          |          |          |
| ADULT   | 6.55E-06 | 6.53E-06 | 1.35E-07 | 6.58E-06 | 6.58E-06 | 1.80E-05 | 6.57E-06 | 6.52E-06 |
| TEEN    | 6.60E-06 | 6.57E-06 | 1.61E-07 | 6.64E-06 | 6.65E-06 | 2.06E-05 | 6.65E-06 | 6.56E-06 |
| CHILD   | 5.84E-06 | 5.81E-06 | 1.80E-07 | 5.88E-06 | 5.88E-06 | 2.15E-05 | 5.88E-06 | 5.80E-06 |
| INFANT  | 3.36E-06 | 3.34E-06 | 9.45E-08 | 3.40E-06 | 3.39E-06 | 1.77E-05 | 3.40E-06 | 3.34E-06 |

TABLE VII-A-29

BETA AIR DOSE = 3.23E-03 MILLRADS  
 GAMMA AIR DOSE = 1.14E-03 MILLRADS

| PATHWAY | T BODY   | GI-TRACT | BONE     | LIVER    | KIDNEY   | THYROID  | LUNG     | SKIN     |
|---------|----------|----------|----------|----------|----------|----------|----------|----------|
| FALLOUT | 6.68E-04 | 6.68E-04 | 6.68E-04 | 6.68E-04 | 6.68E-04 | 6.68E-04 | 7.00E-04 | 1.86E-03 |
| GROUND  | 3.23E-07 | 3.23E-07 | 3.23E-07 | 3.23E-07 | 3.23E-07 | 3.23E-07 | 3.23E-07 | 3.77E-07 |
| MEAT    |          |          |          |          |          |          |          |          |
| ADULT   | 9.76E-07 | 1.00E-06 | 2.52E-07 | 1.10E-06 | 9.41E-07 | 4.23E-06 | 9.99E-07 | 9.15E-07 |
| TEEN    | 5.89E-07 | 6.00E-07 | 2.03E-07 | 6.97E-07 | 5.67E-07 | 2.95E-06 | 6.25E-07 | 5.46E-07 |
| CHILD   | 7.27E-07 | 6.93E-07 | 3.81E-07 | 8.73E-07 | 6.87E-07 | 4.28E-06 | 7.61E-07 | 6.59E-07 |



FORT CALHOUN RECEPTORS IN ALL SECTORS 07-03-92  
 SPECIAL LOCAL # 14 RES. VEG  
 AT 2.43 MILES NW

BETA AIR DOSE = 8.43E-03 MILLRADS  
 GAMMA AIR DOSE = 2.98E-03 MILLRADS

TABLE VII-A-30

| PATHWAY | T. BODY  | GI-TRACT | BONE     | LIVER    | KIDNEY   | THYROID  | LUNG     | SKIN     |
|---------|----------|----------|----------|----------|----------|----------|----------|----------|
| PLUME   | 1.75E-03 | 1.75E-03 | 1.75E-03 | 1.75E-03 | 1.75E-03 | 1.75E-03 | 1.83E-03 | 4.87E-03 |
| GROUND  | 8.46E-07 | 8.46E-07 | 8.46E-07 | 8.46E-07 | 8.46E-07 | 8.46E-07 | 8.46E-07 | 9.89E-07 |
| VEGET   |          |          |          |          |          |          |          |          |
| ADULT   | 1.79E-05 | 1.70E-05 | 3.82E-06 | 1.79E-05 | 1.72E-05 | 8.80E-05 | 1.69E-05 | 1.66E-05 |
| TEEN    | 2.05E-05 | 1.94E-05 | 5.05E-06 | 2.09E-05 | 1.97E-05 | 7.82E-05 | 1.95E-05 | 1.90E-05 |
| CHILD   | 3.16E-05 | 2.98E-05 | 9.62E-06 | 3.27E-05 | 3.05E-05 | 1.19E-04 | 3.03E-05 | 2.95E-05 |
| INHAL   |          |          |          |          |          |          |          |          |
| ADULT   | 9.25E-06 | 9.22E-06 | 1.88E-07 | 9.28E-06 | 9.29E-06 | 2.52E-05 | 9.27E-06 | 9.20E-06 |
| TEEN    | 9.32E-06 | 9.28E-06 | 2.24E-07 | 9.37E-06 | 9.38E-06 | 2.90E-05 | 9.38E-06 | 9.26E-06 |
| CHILD   | 8.24E-06 | 8.20E-06 | 2.50E-07 | 8.30E-06 | 8.30E-06 | 3.02E-05 | 8.30E-06 | 8.19E-06 |
| INFANT  | 4.74E-06 | 4.71E-06 | 1.32E-07 | 4.79E-06 | 4.78E-06 | 2.48E-05 | 4.79E-06 | 4.71E-06 |

FORT CALHOON RECEPTORS IN ALL SECTORS 02-03-92  
 SPECIAL LOCAL # 15 COW, PORK, BEEF  
 AT 3.47 MILES NW

BETA AIR DOSE = 4.17E-03 MILLRADS  
 GAMMA AIR DOSE = 1.46E-03 MILLRADS

TABLE VII-A-31

| PATHWAY  | T. BODY  | GI-TRACT | BONE     | LIVER    | KIDNEY   | THYROID  | LUNG     | SKIN     |
|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| PLUME    | 8.57E-04 | 8.57E-04 | 8.57E-04 | 8.57E-04 | 8.57E-04 | 8.57E-04 | 8.98E-04 | 2.39E-03 |
| GROUND   | 3.61E-07 | 3.61E-07 | 3.61E-07 | 3.61E-07 | 3.61E-07 | 3.61E-07 | 3.61E-07 | 4.22E-07 |
| MEAT     |          |          |          |          |          |          |          |          |
| ADULT    | 1.25E-06 | 1.28E-06 | 2.81E-07 | 1.39E-06 | 1.21E-06 | 4.82E-06 | 1.28E-06 | 1.18E-06 |
| TEEN     | 7.54E-07 | 7.68E-07 | 2.26E-07 | 8.76E-07 | 7.31E-07 | 3.39E-06 | 7.96E-07 | 7.07E-07 |
| CHILD    | 9.29E-07 | 8.91E-07 | 4.26E-07 | 1.09E-06 | 8.84E-07 | 4.90E-06 | 9.67E-07 | 8.54E-07 |
| COW MILK |          |          |          |          |          |          |          |          |
| ADULT    | 3.01E-06 | 2.83E-06 | 3.08E-07 | 3.14E-06 | 3.11E-06 | 5.39E-05 | 2.81E-06 | 2.78E-06 |
| TEEN     | 3.91E-06 | 3.69E-06 | 5.40E-07 | 4.25E-06 | 4.22E-06 | 8.44E-05 | 3.68E-06 | 3.62E-06 |
| CHILD    | 6.12E-06 | 5.78E-06 | 1.26E-06 | 6.82E-06 | 6.71E-06 | 1.65E-04 | 5.81E-06 | 5.73E-06 |
| INFANT   | 9.33E-06 | 8.74E-06 | 2.17E-06 | 1.11E-05 | 1.04E-05 | 3.96E-04 | 8.83E-06 | 8.69E-06 |

FORT CALHOUN RECEPTORS IN ALL SECTORS 02-03-92  
 SPECIAL LOCALITY # 16 RES  
 AT 2.02 MILES NNW

BETA AIR DOSE = 8.39E-03 MILLRADS  
 GAMMA AIR DOSE = 2.97E-03 MILLRADS

TABLE VII-A-32

| PATHWAY | T. BODY  | GI-TRACT | BONE     | LIVER    | KIDNEY   | THYROID  | LUNG     | SKIN     |
|---------|----------|----------|----------|----------|----------|----------|----------|----------|
| PLUME   | 1.75E-03 | 1.75E-03 | 1.75E-03 | 1.75E-03 | 1.75E-03 | 1.75E-03 | 1.83E-03 | 4.85E-03 |
| GROUND  | 1.44E-06 | 1.44E-06 | 1.44E-06 | 1.44E-06 | 1.44E-06 | 1.44E-06 | 1.44E-06 | 1.68E-06 |
| INHAL   |          |          |          |          |          |          |          |          |
| ADULT   | 9.19E-06 | 9.16E-06 | 1.90E-07 | 9.22E-06 | 9.23E-06 | 2.52E-05 | 9.22E-06 | 9.14E-06 |
| TEEN    | 9.25E-06 | 9.22E-06 | 2.27E-07 | 9.31E-06 | 9.33E-06 | 2.90E-05 | 9.33E-06 | 9.20E-06 |
| CHILD   | 8.19E-06 | 8.14E-06 | 2.53E-07 | 8.25E-06 | 8.25E-06 | 3.02E-05 | 8.25E-06 | 8.14E-06 |
| INFANT  | 4.71E-06 | 4.68E-06 | 1.33E-07 | 4.77E-06 | 4.76E-06 | 2.48E-05 | 4.77E-06 | 4.68E-06 |

FORT CALHOUN RECEPTORS IN ALL SECTORS 02-03-92  
 SPECIAL LOCAL # 1 PORK  
 AT 3.70 MILES NNW

BETA AIR DOSE = 2.39E-03 MILLRADS  
 GAMMA AIR DOSE = 8.38E-04 MILLRADS

TABLE VII-A-33

| PATHWAY | T. BODY  | GI-TRACT | BONE     | LIVER    | KIDNEY   | THYROID  | LUNG     | SKIN     |
|---------|----------|----------|----------|----------|----------|----------|----------|----------|
| PLUME   | 4.92E-04 | 4.92E-04 | 4.92E-04 | 4.92E-04 | 4.92E-04 | 4.92E-04 | 5.16E-04 | 1.38E-03 |
| GROUND  | 3.32E-07 | 3.32E-07 | 3.32E-07 | 3.32E-07 | 3.32E-07 | 3.32E-07 | 3.32E-07 | 3.88E-07 |
| MEAT    |          |          |          |          |          |          |          |          |
| ADULT   | 7.43E-07 | 7.70E-07 | 2.59E-07 | 8.68E-07 | 7.08E-07 | 4.08E-06 | 7.67E-07 | 6.81E-07 |
| YEN     | 4.50E-07 | 4.62E-07 | 2.08E-07 | 5.62E-07 | 4.28E-07 | 2.67E-06 | 4.88E-07 | 4.06E-07 |
| CHILD   | 5.60E-07 | 5.25E-07 | 3.92E-07 | 7.10E-07 | 5.19E-07 | 4.21E-06 | 5.95E-07 | 4.91E-07 |

FORT CALHOON RECEPTORS IN ALL SECTORS 02-03-92  
 SPECIAL LOCA # 2 VEG  
 AT 4.00 MILES NNW

BETA AIR DOSE = 2.01E-03 MILLRADS  
 GAMMA AIR DOSE = 7.04E-04 MILLRADS

TABLE VII-A-34

| PATHWAY | T. BODY  | GI-TRACT | BONE     | LIVER    | KIDNEY   | THYROID  | LUNG     | SKIN     |
|---------|----------|----------|----------|----------|----------|----------|----------|----------|
| PLUME   | 4.14E-04 | 4.14E-04 | 4.14E-04 | 4.14E-04 | 4.14E-04 | 4.14E-04 | 4.34E-04 | 1.15E-03 |
| GROUND  | 2.80E-07 | 2.80E-07 | 2.80E-07 | 2.80E-07 | 2.80E-07 | 2.80E-07 | 2.80E-07 | 3.27E-07 |
| VEGET   |          |          |          |          |          |          |          |          |
| ADULT   | 4.40E-06 | 4.08E-06 | 1.26E-06 | 4.39E-06 | 4.17E-06 | 2.76E-05 | 4.06E-06 | 3.96E-06 |
| TEEN    | 5.01E-06 | 4.67E-06 | 1.67E-06 | 5.16E-06 | 4.78E-06 | 2.41E-05 | 4.71E-06 | 4.54E-06 |
| CHILD   | 7.73E-06 | 7.13E-06 | 3.18E-06 | 8.09E-06 | 7.38E-06 | 3.67E-05 | 7.30E-06 | 7.03E-06 |

TABLE VII-B-1

FORT CALHOUN 1 DOSE CONTRIBUTIONS FROM GASEOUS EFFLUENTS  
UNRESTRICTED AREA BOUNDARY  
REQUIRED BY TECHNICAL SPECIFICATION 5.9.4.a.

SEMIANNUAL FOR JUL TO DEC 81

MAXIMUM SITE BOUNDARY GAMMA AIR DOSE = 1.89E-02 MILLIRAD  
MAXIMUM SITE BOUNDARY BETA AIR DOSE = 5.30E-02 MILLIRAD

TABLE VII-C-1

FORT CALHOUN SEMIANNUAL 07/91-12/91 TRI-EX TOWER DATA 02-03-92  
ALARA INTEGRATED POPULATION DOSE SUMMARY (MANREM)

| PATHWAY  | T.BODY             | GI-TRACT           | BONE               | LIVER              | KIDNEY             | THYROID            | LUNG               | SKIN               |
|----------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| PLUME    | 1.71E-02<br>97.71% | 1.71E-02<br>97.77% | 1.71E-02<br>99.63% | 1.71E-02<br>97.65% | 1.71E-02<br>97.71% | 1.71E-02<br>85.26% | 1.83E-02<br>97.91% | 5.88E-02<br>99.35% |
| GROUND   | 7.84E-06<br>0.04%  | 7.84E-06<br>0.04%  | 7.84E-06<br>0.05%  | 7.84E-06<br>0.04%  | 7.84E-06<br>0.04%  | 7.84E-06<br>0.04%  | 7.84E-06<br>0.04%  | 9.16E-06<br>0.02%  |
| INHAL    | 1.35E-04<br>0.77%  | 1.34E-04<br>0.77%  | 2.43E-06<br>0.01%  | 1.35E-04<br>0.77%  | 1.35E-04<br>0.77%  | 3.63E-04<br>1.81%  | 1.35E-04<br>0.72%  | 1.34E-04<br>0.23%  |
| VEGET    | 1.75E-04<br>1.00%  | 1.66E-04<br>0.95%  | 3.75E-05<br>0.22%  | 1.78E-04<br>1.02%  | 1.73E-04<br>0.99%  | 1.65E-03<br>8.23%  | 1.66E-04<br>0.89%  | 1.63E-04<br>0.28%  |
| COW MILK | 4.47E-05<br>0.26%  | 4.25E-05<br>0.24%  | 5.81E-06<br>0.03%  | 4.78E-05<br>0.27%  | 4.69E-05<br>0.27%  | 7.81E-04<br>3.90%  | 4.25E-05<br>0.23%  | 4.20E-05<br>0.07%  |
| MEAT     | 3.85E-05<br>0.22%  | 3.94E-05<br>0.23%  | 9.77E-06<br>0.06%  | 4.34E-05<br>0.25%  | 3.77E-05<br>0.22%  | 1.54E-04<br>0.77%  | 3.99E-05<br>0.21%  | 3.67E-05<br>0.06%  |
| *TOTAL*  | 1.75E-02           | 1.75E-02           | 1.72E-02           | 1.75E-02           | 1.75E-02           | 2.01E-02           | 1.87E-02           | 5.92E-02           |

TABLE VII-D-1

FT. CALHOUN SEMI-ANNUAL RELEASES FOR JUL 1991 TO DEC 1991 02-08-92 RETS

DISCHARGE=7.79E+02 CFS SOURCE TERM MULTIPLIER=1.00E+00  
 50-MILE POPULATION=7.35E+05 FRACTION --- ADULT=0.66  
 TEENAGER=0.14  
 CHILD=0.20

FRESHWATER SITE

FT. CALHOUN 5. TERMS07/91-12/91

NO IECONCENTRATION OF NUCLIDES

\* \* \* ADULT DOSE FACTORS \* \* \*

| NUCLIDE | CURIE / SVR | INGESTION DOSE FACTORS (MREM/PCI INTAKE) |          |            |          |          |          |          |          |            |          | SHORELINE (MREM/HR) / (PCI/M**2) |  |  |
|---------|-------------|--|----------|------------|----------|----------|----------|----------|----------|------------|----------|----------------------------------|--|--|
|         |             | BONE                                     | LIVER    | TOTAL BODY | THYROID  | KIDNEY   | LUNG     | GI-LLI   | SKIN     | TOTAL BODY | RECON    |                                  |  |  |
| 38SR    | 7.98E-06    | 3.08E-04                                 | 0.00E+00 | 8.84E-06   | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 4.94E-05 | 6.50E-13   | 5.60E-13 | 1.00E+00                         |  |  |
| 38SR    | 1.26E-04    | 7.58E-03                                 | 0.00E+00 | 1.86E-03   | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.19E-04 | 0.00E+00   | 0.00E+00 | 1.00E+00                         |  |  |
| 39V     | 1.26E-04    | 9.62E-09                                 | 0.00E+00 | 2.58E-10   | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.02E-04 | 2.60E-12   | 2.20E-12 | 1.00E+00                         |  |  |
| 53I     | 2.27E-02    | 4.16E-06                                 | 5.95E-06 | 3.41E-06   | 1.95E-03 | 1.02E-05 | 0.00E+00 | 0.00E+00 | 1.57E-06 | 3.40E-09   | 2.80E-09 | 1.00E+00                         |  |  |
| 55CS    | 3.27E-02    | 7.97E-05                                 | 1.09E-04 | 7.14E-05   | 0.00E+00 | 3.70E-05 | 1.23E-05 | 2.11E-06 | 4.90E-09 | 4.20E-09   | 1.00E+00 |                                  |  |  |
| 41NB    | 1.50E-05    | 6.22E-09                                 | 3.46E-09 | 1.86E-09   | 0.00E+00 | 3.42E-09 | 0.00E+00 | 2.10E-05 | 6.00E-09 | 5.10E-09   | 1.00E+00 |                                  |  |  |
| 55CS    | 1.75E-02    | 6.22E-05                                 | 1.48E-04 | 1.21E-04   | 0.00E+00 | 4.79E-05 | 1.59E-05 | 2.59E-05 | 1.40E-08 | 1.20E-08   | 1.00E+00 |                                  |  |  |
| 27CO    | 1.12E-02    | 0.00E+00                                 | 7.45E-07 | 1.67E-06   | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.51E-05 | 8.20E-09 | 7.00E-09   | 1.00E+00 |                                  |  |  |
| 25MN    | 2.50E-04    | 0.00E+00                                 | 4.57E-06 | 8.72E-07   | 0.00E+00 | 1.36E-06 | 0.00E+00 | 1.40E-05 | 6.80E-09 | 5.80E-09   | 1.00E+00 |                                  |  |  |
| 27CO    | 1.09E-02    | 0.00E+00                                 | 2.14E-06 | 4.72E-06   | 0.00E+00 | 0.00E+00 | 0.00E+00 | 4.02E-05 | 2.00E-08 | 1.70E-08   | 1.00E+00 |                                  |  |  |
| 57LA    | 2.54E-04    | 2.50E-09                                 | 1.26E-09 | 3.33E-10   | 0.00E+00 | 0.00E+00 | 0.00E+00 | 9.25E-05 | 1.70E-08 | 1.50E-08   | 1.00E+00 |                                  |  |  |
| 51SB    | 7.90E-03    | 1.79E-06                                 | 2.00E-08 | 4.26E-07   | 1.82E-09 | 0.00E+00 | 1.38E-06 | 1.97E-05 | 3.50E-09 | 3.10E-09   | 1.00E+00 |                                  |  |  |
| 47AG    | 5.58E-04    | 1.60E-07                                 | 1.48E-07 | 8.79E-08   | 0.00E+00 | 2.91E-07 | 0.00E+00 | 6.04E-05 | 2.10E-08 | 1.80E-08   | 1.00E+00 |                                  |  |  |
| 1H      | 3           | 1.06E+02                                 | 0.00E+00 | 1.05E-07   | 1.05E-07 | 1.05E-07 | 1.05E-07 | 5.68E-07 | 0.00E+00 | 0.00E+00   | 1.00E+00 |                                  |  |  |
| 6C      | 14          | 8.55E-01                                 | 2.84E-06 | 5.68E-07   | 5.68E-07 | 5.68E-07 | 5.68E-07 | 5.68E-07 | 0.00E+00 | 0.00E+00   | 1.00E+00 |                                  |  |  |
| 26FE    | 55          | 2.80E-02                                 | 2.75E-06 | 1.90E-06   | 4.43E-07 | 0.00E+00 | 0.00E+00 | 1.06E-06 | 0.00E+00 | 0.00E+00   | 1.00E+00 |                                  |  |  |
| 56BA    | 140         | 2.74E-04                                 | 2.03E-05 | 2.55E-08   | 1.33E-06 | 0.00E+00 | 8.67E-09 | 1.46E-08 | 4.19E-05 | 2.40E-09   | 1.00E+00 |                                  |  |  |
| 42MO    | 98          | 1.11E-04                                 | 0.00E+00 | 4.31E-06   | 8.20E-07 | 0.00E+00 | 9.76E-06 | 0.00E+00 | 9.99E-06 | 2.20E-09   | 1.90E-09 |                                  |  |  |
| 43TC    | 99          | 9.43E-05                                 | 1.25E-07 | 1.86E-07   | 5.02E-08 | 0.00E+00 | 2.34E-06 | 1.58E-08 | 6.08E-06 | 0.00E+00   | 1.00E+00 |                                  |  |  |
| 53I     | 133         | 1.75E-03                                 | 1.42E-06 | 2.47E-06   | 7.53E-07 | 3.63E-04 | 4.31E-06 | 0.00E+00 | 2.22E-06 | 4.50E-09   | 3.70E-09 |                                  |  |  |
| 55CS    | 136         | 7.57E-05                                 | 6.51E-06 | 2.57E-03   | 1.85E-05 | 0.00E+00 | 1.43E-05 | 1.96E-06 | 2.92E-06 | 1.70E-08   | 1.50E-08 |                                  |  |  |





TABLE VII-D-2

\* \* \* AS LOW AS REASONABLY ACHIEVABLE \* \* \*

A D U L T D O S E S

| PATHWAY   | DOSE (MREM PER .5YR INTAKE) |          |          |            |          |          |          |          |
|-----------|-----------------------------|----------|----------|------------|----------|----------|----------|----------|
|           | SKIN                        | BONE     | LIVER    | TOTAL BODY | THYROID  | KIDNEY   | LUNG     | GI-LLI   |
| FISH      |                             | 7.69E-02 | 6.02E-02 | 4.62E-02   | 1.18E-02 | 2.62E-02 | 1.49E-02 | 1.04E-02 |
| DRINKING  |                             | 2.47E-04 | 6.11E-04 | 5.59E-04   | 1.81E-03 | 4.71E-04 | 4.19E-04 | 3.30E-04 |
| SHORELINE | 5.08E-05                    | 4.35E-05 | 4.35E-05 | 4.35E-05   | 4.35E-05 | 4.35E-05 | 4.35E-05 | 4.35E-05 |
| SWIMMING  | 0.00E+00                    | 4.34E-07 | 4.34E-07 | 4.34E-07   | 4.34E-07 | 4.34E-07 | 4.34E-07 | 4.34E-07 |
| BOATING   | 0.00E+00                    | 2.17E-07 | 2.17E-07 | 2.17E-07   | 2.17E-07 | 2.17E-07 | 2.17E-07 | 2.17E-07 |
| TOTAL     | 5.08E-05                    | 7.72E-02 | 6.09E-02 | 4.68E-02   | 1.37E-02 | 2.68E-02 | 1.54E-02 | 1.09E-02 |

| PATHWAY   | USAGE (KG/YR,HR/YR) | DILUTION | TIME(HR) | SHOREWIDTH FACTOR=0.2 |  |
|-----------|---------------------|----------|----------|-----------------------|--|
|           |                     |          |          |                       |  |
| FISH      | 21.0                | 7.3      | 24.00    |                       |  |
| DRINKING  | 730.0               | 30.8     | 18.60    |                       |  |
| SHORELINE | 12.0                | 7.3      | 0.00     |                       |  |
| SWIMMING  | 12.0                | 7.3      | 0.00     |                       |  |
| BOATING   | 12.0                | 7.3      | 0.00     |                       |  |

\* \* \* ISOTOPE CONTRIBUTION \* \* \*

| PATHWAY   | SKIN   |     | BONE   |     | LIVER  |     | TOTAL BODY |     | THYROID |     | KIDNEY |     | LUNG   |     | GI-LLI |     |
|-----------|--------|-----|--------|-----|--------|-----|------------|-----|---------|-----|--------|-----|--------|-----|--------|-----|
|           |        |     |        |     |        |     |            |     |         |     |        |     |        |     |        |     |
| FISH      | CS 137 | 28% | CS 137 | 48% | CS 137 | 41% | I 131      | 21% | CS 137  | 38% | CS 137 | 22% | CS 137 | 5%  | CS 137 | 3%  |
|           | CS 134 | 11% | CS 134 | 35% | CS 134 | 37% | C 14       | 78% | CS 134  | 26% | CS 134 | 15% | CS 134 | 3%  | CS 134 | 3%  |
|           | C 14   | 60% | C 14   | 15% | C 14   | 19% |            |     | C 14    | 35% | C 14   | 61% | C 14   | 88% | C 14   | 88% |
| DRINKING  | SR 90  | 13% | CS 137 | 19% | SR 90  | 1%  | I 131      | 77% | I 131   | 1%  | CS 137 | 3%  | CO 58  | 1%  | CO 58  | 1%  |
|           | I 131  | 1%  | CS 134 | 14% | CS 137 | 14% | H 3        | 20% | CS 137  | 8%  | CS 134 | 2%  | CO 60  | 3%  | CO 60  | 3%  |
|           | CS 137 | 35% | H 3    | 61% | CS 134 | 12% |            |     | CS 134  | 3%  | H 3    | 90% | SB 125 | 1%  | SB 125 | 1%  |
|           | CS 134 | 14% | C 14   | 2%  | H 3    | 67% |            |     | H 3     | 80% | C 14   | 3%  | H 3    | 87% | H 3    | 87% |
|           | C 14   | 33% |        |     | C 14   | 2%  |            |     | C 14    | 3%  |        |     | C 14   | 3%  | C 14   | 3%  |
|           | FE 55  | 1%  |        |     |        |     |            |     |         |     |        |     |        |     |        |     |
| SHORELINE | CS 137 | 46% | CS 137 | 47% |        |     |            |     |         |     |        |     |        |     |        |     |
|           | CS 134 | 16% | CS 134 | 16% |        |     |            |     |         |     |        |     |        |     |        |     |
|           | CO 60  | 32% | CO 60  | 32% |        |     |            |     |         |     |        |     |        |     |        |     |
|           | SB 125 | 2%  | SB 125 | 2%  |        |     |            |     |         |     |        |     |        |     |        |     |
| SWIMMING  | I 131  | 9%  |        |     |        |     |            |     |         |     |        |     |        |     |        |     |
|           | CS 137 | 17% |        |     |        |     |            |     |         |     |        |     |        |     |        |     |
|           | CS 134 | 27% |        |     |        |     |            |     |         |     |        |     |        |     |        |     |
|           | CO 58  | 10% |        |     |        |     |            |     |         |     |        |     |        |     |        |     |
|           | CO 60  | 27% |        |     |        |     |            |     |         |     |        |     |        |     |        |     |
|           | SB 125 | 3%  |        |     |        |     |            |     |         |     |        |     |        |     |        |     |
| AG 110M   | 1%     |     |        |     |        |     |            |     |         |     |        |     |        |     |        |     |

TABLE VII-D-3

\* \* \* AS LOW AS REASONABLY ACHIEVABLE \* \* \*

TEENAGER DOSES

DOSE (MREM PER .5YR INTAKE)

| PATHWAY   | SKIN     | BONE     | LIVER    | TOTAL BODY | THYROID  | KIDNEY   | LUNG     | GI-LLI   |
|-----------|----------|----------|----------|------------|----------|----------|----------|----------|
| FISH      |          | 8.27E-02 | 6.26E-02 | 3.09E-02   | 1.25E-02 | 2.75E-04 | 1.68E-02 | 1.09E-02 |
| DRINKING  |          | 2.35E-04 | 4.87E-04 | 3.72E-04   | 1.50E-03 | 3.56E-04 | 3.09E-04 | 3.06E-04 |
| SHORELINE | 2.84E-04 | 2.43E-04 | 2.43E-04 | 2.43E-04   | 2.43E-04 | 2.43E-04 | 2.43E-04 | 2.43E-04 |
| SWIMMING  | 0.00E+00 | 2.42E-06 | 2.42E-06 | 2.42E-06   | 2.42E-06 | 2.42E-06 | 2.42E-06 | 2.42E-06 |
| BOATING   | 0.00E+00 | 1.21E-06 | 1.21E-06 | 1.21E-06   | 1.21E-06 | 1.21E-06 | 1.21E-06 | 1.21E-06 |
| TOTAL     | 2.84E-04 | 8.32E-02 | 6.33E-02 | 3.15E-02   | 1.42E-02 | 2.81E-02 | 1.73E-02 | 1.15E-02 |

|           | USAGE (KG/YR,HR/YR) | DILUTION | TIME(HR) | SHOREWIDTH FACTOR=0.2 |
|-----------|---------------------|----------|----------|-----------------------|
| FISH      | 16.0                | 7.3      | 24.00    |                       |
| DRINKING  | 510.0               | 30.8     | 18.60    |                       |
| SHORELINE | 67.0                | 7.3      | 0.00     |                       |
| SWIMMING  | 67.0                | 7.3      | 0.00     |                       |
| BOATING   | 67.0                | 7.3      | 0.00     |                       |

\* \* \* ISOTOPE CONTRIBUTION \* \* \*

| PATHWAY   | SKIN   | BONE | LIVER  | TOTAL BODY | THYROID | KIDNEY | LUNG  | GI-LLI |        |     |        |     |        |     |
|-----------|--------|------|--------|------------|---------|--------|-------|--------|--------|-----|--------|-----|--------|-----|
| FISH      | CS 137 | 27%  | CS 137 | 49%        | CS 137  | 34%    | I 131 | 18%    | CS 137 | 38% | CS 137 | 24% | CS 137 | 3%  |
|           | CS 134 | 11%  | CS 134 | 34%        | CS 134  | 32%    | C 14  | 80%    | CS 134 | 25% | CS 134 | 15% | CS 134 | 2%  |
|           | C 14   | 60%  | C 14   | 16%        | C 14    | 32%    |       |        | C 14   | 36% | C 14   | 59% | C 14   | 91% |
| DRINKING  | SR 90  | 10%  | CS 137 | 23%        | SR 90   | 1%     | I 131 | 80%    | I 131  | 1%  | CS 137 | 4%  | CO 58  | 1%  |
|           | I 131  | 1%   | CS 134 | 16%        | CS 137  | 10%    | H 3   | 17%    | CS 137 | 11% | CS 134 | 3%  | CO 60  | 3%  |
|           | CS 137 | 37%  | H 3    | 54%        | CS 134  | 10%    | C 14  | 1%     | CS 134 | 7%  | H 3    | 86% | SB 125 | 1%  |
|           | CS 134 | 14%  | C 14   | 3%         | H 3     | 71%    |       |        | H 3    | 74% | C 14   | 5%  | H 3    | 86% |
|           | C 14   | 35%  |        |            | C 14    | 4%     |       |        | C 14   | 4%  |        |     | C 14   | 5%  |
| SHORELINE | CS 137 | 46%  | CS 137 | 47%        |         |        |       |        |        |     |        |     |        |     |
|           | CS 134 | 16%  | CS 134 | 16%        |         |        |       |        |        |     |        |     |        |     |
|           | CO 60  | 33%  | CO 60  | 32%        |         |        |       |        |        |     |        |     |        |     |
|           | SB 125 | 2%   | SB 125 | 2%         |         |        |       |        |        |     |        |     |        |     |
| SWIMMING  | I 131  | 9%   |        |            |         |        |       |        |        |     |        |     |        |     |
|           | CS 137 | 17%  |        |            |         |        |       |        |        |     |        |     |        |     |
|           | CS 134 | 27%  |        |            |         |        |       |        |        |     |        |     |        |     |
|           | CO 58  | 10%  |        |            |         |        |       |        |        |     |        |     |        |     |
|           | CO 60  | 27%  |        |            |         |        |       |        |        |     |        |     |        |     |
|           | SB 125 | 3%   |        |            |         |        |       |        |        |     |        |     |        |     |
| AG 110M   | 1%     |      |        |            |         |        |       |        |        |     |        |     |        |     |

TABLE VII-D-4

\* \* \* AS LOW AS REASONABLY ACHIEVABLE \* \* \*

## CHILD DOSES

| PATHWAY   | DOSE (MREM PER .5YR INTAKE) |          |          |            |          |          |          |          |
|-----------|-----------------------------|----------|----------|------------|----------|----------|----------|----------|
|           | SKIN                        | BONE     | LIVER    | TOTAL BODY | THYROID  | KIDNEY   | LUNG     | GI-LLI   |
| FISH      |                             | 1.05E-01 | 5.91E-02 | 2.10E-02   | 1.54E-02 | 2.77E-02 | 1.82E-02 | 1.33E-02 |
| DRINKING  |                             | 6.61E-04 | 9.75E-04 | 6.53E-04   | 3.47E-03 | 7.03E-04 | 6.06E-04 | 5.79E-04 |
| SHORELINE | 5.93E-05                    | 5.07E-05 | 5.07E-05 | 5.07E-05   | 5.07E-05 | 5.07E-05 | 5.07E-05 | 5.07E-05 |
| SWIMMING  | 0.00E+00                    | 5.06E-07 | 5.06E-07 | 5.06E-07   | 5.06E-07 | 5.06E-07 | 5.06E-07 | 5.06E-07 |
| BOATING   | 0.00E+00                    | 2.53E-07 | 2.53E-07 | 2.53E-07   | 2.53E-07 | 2.53E-07 | 2.53E-07 | 2.53E-07 |
| TOTAL     | 5.93E-05                    | 1.06E-01 | 6.01E-02 | 2.17E-02   | 1.89E-02 | 2.84E-02 | 1.89E-02 | 1.39E-02 |

| PATHWAY   | USAGE (KG/YR,HR/YR) | DILUTION | TIME(HR) | SHOREWIDTH FACTOR=0.2 |
|-----------|---------------------|----------|----------|-----------------------|
|           |                     |          |          |                       |
| DRINKING  | 510.0               | 30.8     | 18.60    |                       |
| SHORELINE | 14.0                | 7.3      | 0.00     |                       |
| SWIMMING  | 14.0                | 7.3      | 0.00     |                       |
| BOATING   | 14.0                | 7.3      | 0.00     |                       |

## \* \* \* ISOTOPE CONTRIBUTION \* \* \*

| PATHWAY   | SKIN    | BONE | LIVER  | TOTAL BODY | THYROID | KIDNEY | LUNG  | GI-LLI |         |         |         |         |         |         |
|-----------|---------|------|--------|------------|---------|--------|-------|--------|---------|---------|---------|---------|---------|---------|
|           |         |      |        |            |         |        |       |        | ISOTOPE | PERCENT | ISOTOPE | PERCENT | ISOTOPE | PERCENT |
| FISH      | CS 137  | 27%  | CS 137 | 47%        | CS 137  | 19%    | I 131 | 15%    | CS 137  | 32%     | CS 137  | 17%     | CS 137  | 1%      |
|           | CS 134  | 10%  | CS 134 | 30%        | CS 134  | 18%    | C 14  | 83%    | CS 134  | 20%     | CS 134  | 11%     | C 14    | 97%     |
|           | C 14    | 61%  | C 14   | 21%        | C 14    | 61%    |       |        | C 14    | 46%     | C 14    | 70%     |         |         |
| DRINKING  | SR 90   | 7%   | CS 137 | 25%        | SR 90   | 1%     | I 131 | 83%    | I 131   | 2%      | CS 137  | 4%      | CO 60   | 1%      |
|           | I 131   | 1%   | CS 134 | 16%        | CS 137  | 5%     | H 3   | 14%    | CS 137  | 11%     | CS 134  | 2%      | H 3     | 87%     |
|           | CS 137  | 38%  | H 3    | 52%        | CS 134  | 5%     | C 14  | 1%     | CS 134  | 7%      | H 3     | 84%     | C 14    | 8%      |
|           | CS 134  | 14%  | C 14   | 5%         | H 3     | 78%    |       |        | H 3     | 72%     | C 14    | 8%      |         |         |
|           | C 14    | 37%  | C 14   | 7%         | C 14    | 7%     |       |        | C 14    | 7%      |         |         |         |         |
| SHORELINE | CS 137  | 46%  | CS 137 | 47%        |         |        |       |        |         |         |         |         |         |         |
|           | CS 134  | 16%  | CS 134 | 16%        |         |        |       |        |         |         |         |         |         |         |
|           | CO 60   | 32%  | CO 60  | 32%        |         |        |       |        |         |         |         |         |         |         |
|           | SB 125  | 2%   | SB 125 | 2%         |         |        |       |        |         |         |         |         |         |         |
| SWIMMING  | I 131   | 9%   |        |            |         |        |       |        |         |         |         |         |         |         |
|           | CS 137  | 17%  |        |            |         |        |       |        |         |         |         |         |         |         |
|           | CS 134  | 27%  |        |            |         |        |       |        |         |         |         |         |         |         |
|           | CO 58   | 10%  |        |            |         |        |       |        |         |         |         |         |         |         |
|           | CO 60   | 27%  |        |            |         |        |       |        |         |         |         |         |         |         |
|           | SB 125  | 3%   |        |            |         |        |       |        |         |         |         |         |         |         |
|           | AG 110M | 1%   |        |            |         |        |       |        |         |         |         |         |         |         |

TABLE VII-D-5

\* \* \* AS LOW AS REASONABLY ACHIEVABLE \* \* \*

I N F A N T    D O S E S

| PATHWAY   | DOSE (MREM PER .5YR INTAKE) |          |          |            |          |          |          |          |
|-----------|-----------------------------|----------|----------|------------|----------|----------|----------|----------|
|           | SKIN                        | BONE     | LIVER    | TOTAL BODY | THYROID  | KIDNEY   | LUNG     | GI-LLI   |
| FISH      |                             | 0.00E+00 | 0.00E+00 | 0.00E+00   | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| DRINKING  |                             | 7.27E-04 | 1.08E-03 | 6.29E-04   | 5.15E-03 | 7.15E-04 | 6.21E-04 | 5.79E-04 |
| SHORELINE | 0.00E+00                    | 0.00E+00 | 0.00E+00 | 0.00E+00   | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| TOTAL     | 0.00E+00                    | 7.27E-04 | 1.08E-03 | 6.29E-04   | 5.15E-03 | 7.15E-04 | 6.21E-04 | 5.79E-04 |

| PATHWAY  | USAGE (KG/YR,HR/YR) | DILUTION | TIME(HR) | SHOREWIDTH FACTOR=0.2 |
|----------|---------------------|----------|----------|-----------------------|
|          |                     |          |          |                       |
| DRINKING | 330.0               | 30.8     | 18.60    |                       |

\* \* \* ISOTOPE CONTRIBUTION \* \* \*

| PATHWAY  | SKIN | BONE  |       | LIVER  |       | TOTAL BODY |        | THYROID |     | KIDNEY |        | LUNG   |     | GI-LLI |     |      |
|----------|------|-------|-------|--------|-------|------------|--------|---------|-----|--------|--------|--------|-----|--------|-----|------|
|          |      | SR 90 | I 131 | CS 137 | I 131 | SR 90      | CS 137 | I 131   | H 3 | I 131  | CS 137 | CS 134 | H 3 | C 14   | H 3 | C 14 |
| DRINKING |      |       |       |        |       |            |        |         |     |        |        |        |     |        |     |      |
|          |      |       | 4%    | 1%     | 1%    | 1%         | 88%    | 2%      | 5%  | 3      | 86%    |        |     |        |     |      |
|          |      |       | 1%    | 28%    | 3%    | 9%         | 11%    | 3%      | 3%  | 134    | 3%     | 3      | 80% |        |     |      |
|          |      |       | 36%   | 17%    | 3%    | 79%        | 6%     | 3       | 70% | 14     | 10%    |        |     |        |     |      |
|          |      | 13%   | 46%   | 3      | 46%   | 3          | 79%    | 6%      | 3   | 70%    | 14     | 10%    |     |        |     |      |
|          |      | 42%   | 6%    | 14     | 6%    | 14         | 10%    | 9%      |     |        |        |        |     |        |     |      |

TABLE VI-6

\* \* \* SELECTED LOCATION \* \* \*

LOCATION IS SITE DISCHG.

A D U L T D O S E S

DOSE (MREM PER .5YR INTAKE)

| PATHWAY   | SKIN     | BONE     | LIVER    | TOTAL BODY | THYROID  | KIDNEY   | LUNG     | GI-LLI   |
|-----------|----------|----------|----------|------------|----------|----------|----------|----------|
| FISH      |          | 5.61E-01 | 4.40E-01 | 3.37E-01   | 8.62E-02 | 1.92E-01 | 1.09E-01 | 7.60E-02 |
| DRINKING  |          | 7.63E-03 | 1.88E-02 | 1.72E-02   | 5.70E-02 | 1.45E-02 | 1.29E-02 | 1.32E-02 |
| SHORELINE | 3.71E-04 | 3.17E-04 | 3.17E-04 | 3.17E-04   | 3.17E-04 | 3.17E-04 | 3.17E-04 | 3.17E-04 |
| SWIMMING  | 0.00E+00 | 3.17E-06 | 3.17E-06 | 3.17E-06   | 3.17E-06 | 3.17E-06 | 3.17E-06 | 3.17E-06 |
| BOATING   | 0.00E+00 | 1.58E-06 | 1.58E-06 | 1.58E-06   | 1.58E-06 | 1.58E-06 | 1.58E-06 | 1.58E-06 |
| TOTAL     | 3.71E-04 | 5.69E-01 | 4.59E-01 | 3.55E-01   | 1.43E-01 | 2.06E-01 | 1.22E-01 | 8.96E-02 |

| PATHWAY   | USAGE (KG/YR,HR/YR) | DILUTION | TIME(HR) | SHOREWIDTH FACTOR=0.2 |
|-----------|---------------------|----------|----------|-----------------------|
| FISH      | 21.0                | 1.0      | 24.00    |                       |
| DRINKING  | 730.0               | 1.0      | 12.00    |                       |
| SHORELINE | 12.0                | 1.0      | 0.00     |                       |
| SWIMMING  | 12.0                | 1.0      | 0.00     |                       |
| BOATING   | 12.0                | 1.0      | 0.00     |                       |

\* \* \* ISOTOPE CONTRIBUTION \* \* \*

| PATHWAY    | SKIN       | BONE       | LIVER      | TOTAL BODY | THYROID    | KIDNEY     | LUNG      | GI-LLI |
|------------|------------|------------|------------|------------|------------|------------|-----------|--------|
| FISH       | CS 137 28% | CS 137 48% | CS 137 41% | I 131 21%  | CS 137 38% | CS 137 22% | CS 137 5% |        |
|            | CS 134 11% | CS 134 35% | CS 134 37% | C 14 78%   | CS 134 26% | CS 134 15% | CS 134 3% |        |
|            | C 14 60%   | C 14 15%   | C 14 19%   |            | C 14 35%   | C 14 61%   | C 14 88%  |        |
| DRINKING   | SR 90 13%  | CS 137 19% | SR 90 1%   | I 131 77%  | I 131 1%   | CS 137 3%  | CO 58 1%  |        |
|            | I 131 1%   | CS 134 14% | CS 137 14% | H 3 20%    | CS 137 8%  | CS 134 2%  | CO 60 3%  |        |
|            | CS 137 35% | H 3 61%    | CS 134 12% |            | CS 134 6%  | H 3 90%    | SB 125 1% |        |
|            | CS 134 14% | C 14 2%    | H 3 67%    |            | H 3 80%    | C 14 3%    | H 3 87%   |        |
|            | C 14 33%   |            | C 14 2%    |            | C 14 3%    |            | C 14 3%   |        |
|            | FE 55 1%   |            |            |            |            |            |           |        |
| SHORELINE  | CS 137 46% | CS 137 47% |            |            |            |            |           |        |
|            | CS 134 16% | CS 134 16% |            |            |            |            |           |        |
|            | CO 60 32%  | CO 60 32%  |            |            |            |            |           |        |
|            | SB 125 2%  | SB 125 2%  |            |            |            |            |           |        |
| SWIMMING   | I 131 9%   |            |            |            |            |            |           |        |
|            | CS 137 17% |            |            |            |            |            |           |        |
|            | CS 134 27% |            |            |            |            |            |           |        |
|            | CO 58 10%  |            |            |            |            |            |           |        |
|            | CO 60 27%  |            |            |            |            |            |           |        |
|            | SB 125 3%  |            |            |            |            |            |           |        |
| AG 110M 1% |            |            |            |            |            |            |           |        |

TABLE VII-7

\* \* \* SELECTED LOCATION \* \* \*

LOCATION IS SITE DISCHG.

## TEENAGER DOSES

| PATHWAY   | DOSE (MREM PER .5YR INTAKE) |          |          |            |          |          |          |          |
|-----------|-----------------------------|----------|----------|------------|----------|----------|----------|----------|
|           | SKIN                        | BONE     | LIVER    | TOTAL BODY | THYROID  | KIDNEY   | LUNG     | GI-LLI   |
| FISH      |                             | 6.04E-01 | 4.57E-01 | 2.26E-01   | 9.09E-02 | 2.00E-01 | 1.23E-01 | 7.98E-02 |
| DRINKING  |                             | 7.24E-03 | 1.50E-02 | 1.15E-02   | 4.71E-02 | 1.10E-02 | 9.52E-03 | 9.44E-03 |
| SHORELINE | 2.07E-03                    | 1.77E-03 | 1.77E-03 | 1.77E-03   | 1.77E-03 | 1.77E-03 | 1.77E-03 | 1.77E-03 |
| SWIMMING  | 0.00E+00                    | 1.77E-05 | 1.77E-05 | 1.77E-05   | 1.77E-05 | 1.77E-05 | 1.77E-05 | 1.77E-05 |
| BOATING   | 0.00E+00                    | 8.85E-06 | 8.85E-06 | 8.85E-06   | 8.85E-06 | 8.85E-06 | 8.85E-06 | 8.85E-06 |
| TOTAL     | 2.07E-03                    | 6.13E-01 | 4.73E-01 | 2.39E-01   | 1.40E-01 | 2.13E-01 | 1.34E-01 | 9.10E-02 |

|           | USAGE (KG/YR,HR/YR) | DILUTION | TIME(HR) | SHOREWIDTH FACTOR=0.2 |
|-----------|---------------------|----------|----------|-----------------------|
| FISH      | 16.0                | 1.0      | 24.00    |                       |
| DRINKING  | 510.0               | 1.0      | 12.00    |                       |
| SHORELINE | 67.0                | 1.0      | 0.00     |                       |
| SWIMMING  | 67.0                | 1.0      | 0.00     |                       |
| BOATING   | 67.0                | 1.0      | 0.00     |                       |

## \* ISOTOPE CONTRIBUTION \* \* \*

| PATHWAY   | SKIN   | BONE | LIVER  | TOTAL BODY | THYROID | KIDNEY | LUNG  | GI-LLI |        |     |        |     |        |     |
|-----------|--------|------|--------|------------|---------|--------|-------|--------|--------|-----|--------|-----|--------|-----|
| FISH      | CS 137 | 27%  | CS 137 | 49%        | CS 137  | 34%    | I 131 | 18%    | CS 137 | 38% | CS 137 | 24% | CS 137 | 3%  |
|           | CS 134 | 11%  | CS 134 | 34%        | CS 134  | 32%    | C 14  | 80%    | CS 134 | 25% | CS 134 | 15% | CS 134 | 2%  |
|           | C 14   | 60%  | C 14   | 16%        | C 14    | 32%    | C 14  | 36%    | C 14   | 36% | C 14   | 59% | C 14   | 91% |
| DRINKING  | SR 90  | 10%  | CS 137 | 23%        | SR 90   | 1%     | I 131 | 80%    | I 131  | 2%  | CS 137 | 4%  | CO 58  | 1%  |
|           | I 131  | 1%   | CS 134 | 16%        | CS 137  | 10%    | H 3   | 17%    | CS 137 | 11% | CS 134 | 3%  | CO 60  | 3%  |
|           | CS 137 | 37%  | H 3    | 54%        | CS 134  | 10%    | C 14  | 1%     | CS 134 | 7%  | H 3    | 86% | SB 125 | 1%  |
|           | CS 134 | 14%  | C 14   | 3%         | H 3     | 71%    | H 3   | 74%    | C 14   | 5%  | C 14   | 5%  | H 3    | 86% |
|           | C 14   | 35%  | C 14   | 4%         | C 14    | 4%     | C 14  | 4%     | C 14   | 4%  | C 14   | 4%  | C 14   | 5%  |
| SHORELINE | CS 137 | 46%  | CS 137 | 47%        |         |        |       |        |        |     |        |     |        |     |
|           | CS 134 | 16%  | CS 134 | 16%        |         |        |       |        |        |     |        |     |        |     |
|           | CO 60  | 32%  | CO 60  | 32%        |         |        |       |        |        |     |        |     |        |     |
|           | SB 125 | 2%   | SB 125 | 2%         |         |        |       |        |        |     |        |     |        |     |
| SWIMMING  | I 131  | 9%   |        |            |         |        |       |        |        |     |        |     |        |     |
|           | CS 137 | 17%  |        |            |         |        |       |        |        |     |        |     |        |     |
|           | CS 134 | 27%  |        |            |         |        |       |        |        |     |        |     |        |     |
|           | CO 58  | 10%  |        |            |         |        |       |        |        |     |        |     |        |     |
|           | CO 60  | 27%  |        |            |         |        |       |        |        |     |        |     |        |     |
|           | SB 125 | 3%   |        |            |         |        |       |        |        |     |        |     |        |     |
| AG 110M   | 1%     |      |        |            |         |        |       |        |        |     |        |     |        |     |

TABLE VII-D-8

\* \* \* SELECTED LOCATION \* \* \*

LOCATION IS SITE DISCHG.

CHILD DOSES

| PATHWAY   | DOSE (MREM PER .5YR INTAKE) |          |          |            |          |          |          |          |
|-----------|-----------------------------|----------|----------|------------|----------|----------|----------|----------|
|           | SKIN                        | BONE     | LIVER    | TOTAL BODY | THYROID  | KIDNEY   | LUNG     | GI-LLI   |
| FISH      |                             | 7.66E-01 | 4.31E-01 | 1.53E-01   | 1.12E-01 | 2.02E-01 | 1.33E-01 | 9.69E-02 |
| DRINKING  |                             | 2.04E-02 | 3.00E-02 | 2.01E-02   | 1.09E-01 | 2.17E-02 | 1.87E-02 | 1.79E-02 |
| SHORELINE | 4.33E-04                    | 3.70E-04 | 3.70E-04 | 3.70E-04   | 3.70E-04 | 3.70E-04 | 3.70E-04 | 3.70E-04 |
| SWIMMING  | 0.00E+00                    | 3.70E-06 | 3.70E-06 | 3.70E-06   | 3.70E-06 | 3.70E-06 | 3.70E-06 | 3.70E-06 |
| BOATING   | 0.00E+00                    | 1.85E-06 | 1.85E-06 | 1.85E-06   | 1.85E-06 | 1.85E-06 | 1.85E-06 | 1.85E-06 |
| TOTAL     | 4.33E-04                    | 7.87E-01 | 4.61E-01 | 1.73E-01   | 2.22E-01 | 2.24E-01 | 1.52E-01 | 1.15E-01 |

| PATHWAY   | USAGE (KG/YR,HR/YR) | DILUTION | TIME(HR) | SHOREWIDTH FACTOR=0.2 |  |
|-----------|---------------------|----------|----------|-----------------------|--|
|           |                     |          |          |                       |  |
| FISH      | 6.9                 | 1.0      | 24.00    |                       |  |
| DRINKING  | 510.0               | 1.0      | 12.00    |                       |  |
| SHORELINE | 14.0                | 1.0      | 0.00     |                       |  |
| SWIMMING  | 14.0                | 1.0      | 0.00     |                       |  |
| BOATING   | 14.0                | 1.0      | 0.00     |                       |  |

\* \* \* ISOTOPE CONTRIBUTION \* \* \*

| PATHWAY   | SKIN   |     | BONE   |     | LIVER  |     | TOTAL BODY |     | THYROID |     | KIDNEY |     | LUNG   |     | GI-LLI |  |
|-----------|--------|-----|--------|-----|--------|-----|------------|-----|---------|-----|--------|-----|--------|-----|--------|--|
|           |        |     |        |     |        |     |            |     |         |     |        |     |        |     |        |  |
| FISH      | CS 137 | 27% | CS 137 | 47% | CS 137 | 19% | I 131      | 15% | CS 137  | 32% | CS 137 | 17% | CS 137 | 1%  |        |  |
|           | CS 134 | 10% | CS 134 | 30% | CS 134 | 18% | C 14       | 83% | CS 134  | 20% | CS 134 | 11% | CS 134 | 97% |        |  |
|           | C 14   | 61% | C 14   | 21% | C 14   | 61% |            |     | C 14    | 46% | C 14   | 70% |        |     |        |  |
| DRINKING  | SR 90  | 7%  | CS 137 | 24% | SR 90  | 1%  | I 131      | 83% | I 131   | 2%  | CS 137 | 4%  | CO 60  | 1%  |        |  |
|           | I 131  | 1%  | CS 134 | 16% | CS 137 | 5%  | H 3        | 14% | CS 137  | 11% | CS 134 | 2%  | H 3    | 87% |        |  |
|           | CS 137 | 38% | H 3    | 52% | CS 134 | 5%  | C 14       | 1%  | CS 134  | 7%  | H 3    | 84% | C 14   | 8%  |        |  |
|           | CS 134 | 14% | C 14   | 5%  | H 3    | 78% | I 133      | 1%  | H 3     | 72% | C 14   | 8%  |        |     |        |  |
|           | C 14   | 37% |        |     | C 14   | 7%  |            |     | C 14    | 6%  |        |     |        |     |        |  |
| SHORELINE | CS 137 | 46% | CS 137 | 47% |        |     |            |     |         |     |        |     |        |     |        |  |
|           | CS 134 | 16% | CS 134 | 16% |        |     |            |     |         |     |        |     |        |     |        |  |
|           | CO 60  | 32% | CO 60  | 32% |        |     |            |     |         |     |        |     |        |     |        |  |
|           | SB 125 | 2%  | SB 125 | 2%  |        |     |            |     |         |     |        |     |        |     |        |  |
| SWIMMING  | I 131  | 9%  |        |     |        |     |            |     |         |     |        |     |        |     |        |  |
|           | CS 137 | 17% |        |     |        |     |            |     |         |     |        |     |        |     |        |  |
|           | CS 134 | 27% |        |     |        |     |            |     |         |     |        |     |        |     |        |  |
|           | CO 58  | 10% |        |     |        |     |            |     |         |     |        |     |        |     |        |  |
|           | CO 60  | 27% |        |     |        |     |            |     |         |     |        |     |        |     |        |  |
|           | SB 125 | 3%  |        |     |        |     |            |     |         |     |        |     |        |     |        |  |
| AG 110M   | 1%     |     |        |     |        |     |            |     |         |     |        |     |        |     |        |  |



TABLE VII-9

\* \* \* SELECTED LOCATION \* \* \*

LOCATION IS SITE DISCHG.

I N F A N T   D O S E S

| PATHWAY   | DOSE (MREM PER .5YR INTAKE) |          |          |            |          |          |          |          |
|-----------|-----------------------------|----------|----------|------------|----------|----------|----------|----------|
|           | SKIN                        | BONE     | LIVER    | TOTAL BODY | THYROID  | KIDNEY   | LUNG     | GI-LLI   |
| FISH      |                             | 0.00E+00 | 0.00E+00 | 0.00E+00   | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| DRINKING  |                             | 2.24E-02 | 3.33E-02 | 1.94E-02   | 1.62E-01 | 2.20E-02 | 1.91E-02 | 1.78E-02 |
| SHORELINE | 0.00E+00                    | 0.00E+00 | 0.00E+00 | 0.00E+00   | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| TOTAL     | 0.00E+00                    | 2.24E-02 | 3.33E-02 | 1.94E-02   | 1.62E-01 | 2.20E-02 | 1.91E-02 | 1.78E-02 |

|          | USAGE (KG/YR,HR/YR) | DILUTION | TIME(HR) | SHOREWIDTH FACTOR=0.2 |
|----------|---------------------|----------|----------|-----------------------|
| FISH     | 0.0                 | 1.0      | 24.00    |                       |
| DRINKING | 330.0               | 1.0      | 12.00    |                       |

\* \* \* ISOTOPE CONTRIBUTION \* \* \*

| PATHWAY  | SKIN |     | BONE |     | LIVER |     | TOTAL BODY |     | THYROID |     | KIDNEY |     | LUNG |     | GI-LLI |     |     |  |
|----------|------|-----|------|-----|-------|-----|------------|-----|---------|-----|--------|-----|------|-----|--------|-----|-----|--|
|          | SR   | I   | CS   | H   | CS    | H   | CS         | H   | I       | C   | I      | C   | CS   | H   | C      | H   |     |  |
| DRINKING | 90   | 131 | 137  | 134 | 131   | 137 | 90         | 137 | 131     | 137 | 131    | 137 | 137  | 134 | 14     | 3   | 86% |  |
|          | 4%   | 1%  | 28%  | 17% | 1%    | 28% | 1%         | 3%  | 88%     | 11% | 2%     | 11% | 5%   | 3%  | 14     | 11% |     |  |
|          |      |     | 36%  | 13% | 46%   | 3%  | 3%         | 3%  | 1%      | 6%  | 6%     | 6%  | 80%  |     |        |     |     |  |
|          |      |     | 42%  | 14% | 6%    | 10% | 10%        | 10% | 1%      | 9%  | 9%     | 10% | 10%  |     |        |     |     |  |

TABLE VII-1

\* \* \* FISH CONSUMPTION POPULATION DOSES \* \* \*  
MAN-REM

## SPORTFISH HARVEST

-----DOSE (MAN-REM)-----

| PATHWAY | AGE GROUP | USAGE    | BONE     | LIVER    | TOTAL BODY | THYROID  | KIDNEY   | LUNG     | GI-LLI   |
|---------|-----------|----------|----------|----------|------------|----------|----------|----------|----------|
| FISH    | ADULT     | 5.81E+04 | 2.09E-01 | 1.63E-01 | 1.25E-01   | 2.93E-02 | 7.12E-02 | 4.05E-02 | 2.83E-02 |
| FISH    | TEENAGER  | 9.29E+03 | 4.72E-02 | 3.56E-02 | 1.76E-02   | 6.55E-03 | 1.56E-02 | 9.57E-03 | 6.23E-03 |
| FISH    | CHILD     | 5.61E+03 | 8.38E-02 | 4.71E-02 | 1.67E-02   | 1.15E-02 | 2.21E-02 | 1.46E-02 | 1.06E-02 |
| FISH    | TOTAL     | 7.30E+04 | 3.40E-01 | 2.46E-01 | 1.60E-01   | 4.73E-02 | 1.09E-01 | 6.47E-02 | 4.51E-02 |

DILUTION CATCH TIME(HR)-INCLUDES FOOD PROCESSING TIME OF 1.68E+02 HR POPULATION=1.28E+04  
7.30E+00 7.30E+04 1.69E+02

AVERAGE INDIVIDUAL CONSUMPTION (KG/YR) ADULT=6.90E+00 TEEN=5.20E+00 CHILD=2.20E+00

## \* \* \* ISOTOPE CONTRIBUTION \* \* \*

| AGE GROUP |        | BONE |        | LIVER |        | TOTAL BODY |       | THYROID |        | KIDNEY |        | LUNG |        | GI-LLI |
|-----------|--------|------|--------|-------|--------|------------|-------|---------|--------|--------|--------|------|--------|--------|
| ADULT     | CS 137 | 28%  | CS 137 | 49%   | CS 137 | 41%        | I 131 | 13%     | CS 137 | 38%    | CS 137 | 22%  | CS 137 | 5%     |
|           | CS 134 | 11%  | CS 134 | 35%   | CS 134 | 37%        | C 14  | 85%     | CS 134 | 26%    | CS 134 | 15%  | CS 134 | 3%     |
|           | C 14   | 60%  | C 14   | 15%   | C 14   | 20%        |       |         | C 14   | 35%    | C 14   | 61%  | C 14   | 88%    |
|           |        |      |        |       |        |            |       |         |        |        |        |      |        |        |
| TEENAGER  | CS 137 | 27%  | CS 137 | 49%   | CS 137 | 34%        | I 131 | 12%     | CS 137 | 38%    | CS 137 | 24%  | CS 137 | 4%     |
|           | CS 134 | 11%  | CS 134 | 34%   | CS 134 | 32%        | C 14  | 87%     | CS 134 | 25%    | CS 134 | 15%  | CS 134 | 2%     |
|           | C 14   | 60%  | C 14   | 16%   | C 14   | 32%        |       |         | C 14   | 36%    | C 14   | 59%  | C 14   | 92%    |
|           |        |      |        |       |        |            |       |         |        |        |        |      |        |        |
| CHILD     | CS 137 | 27%  | CS 137 | 47%   | CS 137 | 19%        | I 131 | 10%     | CS 137 | 32%    | CS 137 | 17%  | CS 137 | 1%     |
|           | CS 134 | 10%  | CS 134 | 30%   | CS 134 | 18%        | C 14  | 89%     | CS 134 | 20%    | CS 134 | 11%  | C 14   | 97%    |
|           | C 14   | 61%  | C 14   | 21%   | C 14   | 61%        |       |         | C 14   | 46%    | C 14   | 70%  |        |        |
|           |        |      |        |       |        |            |       |         |        |        |        |      |        |        |

TABLE VI-2

\* \* \* FISH CONSUMPTION POPULATION DOSES \* \* \*  
MAN-REM

## COMMERCIAL HARVEST

-----DOSE (MAN-REM)-----

| PATHWAY | AGE GROUP | USAGE    | BONE     | LIVER    | TOTAL BODY | THYROID  | KIDNEY   | LUNG     | GI-LLI   |
|---------|-----------|----------|----------|----------|------------|----------|----------|----------|----------|
| FISH    | ADULT     | 3.35E+06 | 2.00E-02 | 1.56E-02 | 1.20E-02   | 2.71E-03 | 6.80E-03 | 3.87E-03 | 2.70E-03 |
| FISH    | TEENAGER  | 5.35E+05 | 4.50E-03 | 3.40E-03 | 1.68E-03   | 6.09E-04 | 1.49E-03 | 9.14E-04 | 5.95E-04 |
| FISH    | CHILD     | 3.23E+05 | 8.01E-03 | 4.50E-03 | 1.60E-03   | 1.07E-03 | 2.11E-03 | 1.39E-03 | 1.01E-03 |
| FISH    | TOTAL     | 4.20E+06 | 3.25E-02 | 2.35E-02 | 1.52E-02   | 4.39E-03 | 1.04E-02 | 6.18E-03 | 4.31E-03 |

DILUTION CATCH TIME(HR)-INCLUDES FOOD PROCESSING TIME OF 2.40E+02 HR POPULATION=7.35E+05  
7.30E+00 7.30E+04 2.41E+02

AVERAGE INDIVIDUAL CONSUMPTION (KG/YR) ADULT=6.90E+00 TEEN=5.20E+00 CHILD=2.20E+00

## \* \* \* ISOTOPE CONTRIBUTION \* \* \*

| AGE GROUP |        | BONE |        | LIVER |        | TOTAL BODY |       | THYROID |        | KIDNEY |        | LUNG   |        | GI-LLI |     |
|-----------|--------|------|--------|-------|--------|------------|-------|---------|--------|--------|--------|--------|--------|--------|-----|
| ADULT     | CS 137 | 28%  | CS 137 | 49%   | CS 137 | 41%        | I 131 | 11%     |        | 137    | 38%    | CS 137 | 22%    | CS 137 | 5%  |
|           | CS 134 | 11%  | CS 134 | 35%   | CS 134 | 37%        | C 14  | 88%     |        | 134    | 26%    | CS 134 | 15%    | CS 134 | 3%  |
|           | C 14   | 60%  | C 14   | 15%   | C 14   | 20%        |       |         |        | 14     | 35%    | C 14   | 61%    | C 14   | 88% |
| TEENAGER  | CS 137 | 27%  | CS 137 | 49%   | CS 137 | 34%        | I 131 | 9%      | CS 137 | 38%    | CS 137 | 24%    | CS 137 | 4%     |     |
|           | CS 134 | 11%  | CS 134 | 34%   | CS 134 | 32%        | C 14  | 90%     | CS 134 | 24%    | CS 134 | 15%    | CS 134 | 2%     |     |
|           | C 14   | 60%  | C 14   | 16%   | C 14   | 32%        |       |         | C 14   | 36%    | C 14   | 59%    | C 14   | 92%    |     |
| CHILD     | CS 137 | 27%  | CS 137 | 47%   | CS 137 | 19%        | I 131 | 7%      | CS 137 | 32%    | CS 137 | 17%    | CS 137 | 1%     |     |
|           | CS 134 | 10%  | CS 134 | 30%   | CS 134 | 18%        | C 14  | 91%     | CS 134 | 20%    | CS 134 | 11%    | C 14   | 97%    |     |
|           | C 14   | 61%  | C 14   | 21%   | C 14   | 61%        |       |         | C 14   | 46%    | C 14   | 70%    |        |        |     |

## NEPA DOSES

NOTE--TOTAL NEPA DOSE MUST INCLUDE SPORT CATCH, DOSES BELOW ARE FOR COMMERCIAL CATCH ONLY

-----DOSE (MAN-REM)-----

| PATHWAY | AGE GROUP | USAGE    | BONE     | LIVER    | TOTAL BODY | THYROID  | KIDNEY   | LUNG     | GI-LLI   |
|---------|-----------|----------|----------|----------|------------|----------|----------|----------|----------|
| FISH    | ADULT     | 5.81E+04 | 2.09E-01 | 1.63E-01 | 1.25E-01   | 2.84E-02 | 7.11E-02 | 4.05E-02 | 2.83E-02 |
| FISH    | TEENAGER  | 9.29E+03 | 4.71E-02 | 3.56E-02 | 1.76E-02   | 6.37E-03 | 1.56E-02 | 9.57E-03 | 6.23E-03 |
| FISH    | CHILD     | 5.61E+03 | 8.38E-02 | 4.71E-02 | 1.67E-02   | 1.12E-02 | 2.21E-02 | 1.46E-02 | 1.06E-02 |
| FISH    | TOTAL     | 7.30E+04 | 3.40E-01 | 2.46E-01 | 1.69E-01   | 4.60E-02 | 1.09E-01 | 6.46E-02 | 4.51E-02 |

TABLE VII-3

\* \* \* POPULATION WATER CONSUMPTION DOSES \* \* \*

| -----DOSE (MAN-REM)-----              |           |                   |                |   |               |          |                |          |          |     |        |     |        |     |
|---------------------------------------|-----------|-------------------|----------------|---|---------------|----------|----------------|----------|----------|-----|--------|-----|--------|-----|
| PATHWAY                               | AGE GROUP | USAGE             | BONE           | LIVER   | TOTAL BODY    | THYROID  | KIDNEY         | LUNG     | GI-LLI   |     |        |     |        |     |
| DRINKING                              | ADULT     | 1.29E+08          | 4.38E-02       | 1.08E-01  | 9.89E-02      | 3.10E-01 | 8.33E-02       | 7.41E-02 | 7.60E-02 |     |        |     |        |     |
| DRINKING                              | TEENAGER  | 1.93E+07          | 8.86E-03       | 1.84E-02  | 1.40E-02      | 5.45E-02 | 1.34E-02       | 1.17E-02 | 1.16E-02 |     |        |     |        |     |
| DRINKING                              | CHILD     | 2.75E+07          | 3.56E-02       | 5.25E-02  | 3.52E-02      | 1.80E-01 | 3.79E-02       | 3.27E-02 | 3.12E-02 |     |        |     |        |     |
| DRINKING                              | TOTAL     | 1.76E+08          | 3.82E-02       | 1.79E-01  | 1.48E-01      | 5.44E-01 | 1.35E-01       | 1.18E-01 | 1.19E-01 |     |        |     |        |     |
| POPULATION=5.29E+05                   |           | DILUTION=3.08E+01 |                | TRANSIT TIME=3.06E+01 HR (INCLUDING 24 HR FOR TREATMENT FACILITY) |               |          |                |          |          |     |        |     |        |     |
| AVERAGE INDIVIDUAL CONSUMPTION (L/YR) |           |                   | ADULT=3.70E+02 |   | TEEN=2.60E+02 |          | CHILD=2.60E+02 |          |          |     |        |     |        |     |
| * * * ISOTOPE CONTRIBUTION * * *      |           |                   |                |   |               |          |                |          |          |     |        |     |        |     |
| AGE GROUP                             | BONE      |                   | LIVER          |   | TOTAL BODY    |          | THYROID        |          | KIDNEY   |     | LUNG   |     | GI-LLI |     |
| ADULT                                 | SR 90     | 13%               | CS 137         | 19%   | SR 90         | 1%       | I 131          | 77%      | I 131    | 1%  | CS 137 | 3%  | CO 58  | 1%  |
|                                       | I 131     | 1%                | CS 134         | 14%   | CS 137        | 14%      | H 3            | 21%      | CS 137   | 8%  | CS 134 | 2%  | CO 60  | 3%  |
|                                       | CS 137    | 35%               | H 3            | 61%   | CS 134        | 12%      |                |          | CS 134   | 6%  | H 3    | 90% | SB 125 | 1%  |
|                                       | CS 134    | 14%               | C 14           | 2%  | H 3           | 67%      |                |          | H 3      | 80% | C 14   | 3%  | H 3    | 87% |
|                                       | C 14      | 33%               |                |   | C 14          | 2%       |                |          | C 14     | 3%  |        |     | C 14   | 3%  |
|                                       | FE 55     | 1%                |                |   |               |          |                |          |          |     |        |     |        |     |
| TEENAGER                              | SR 90     | 10%               | CS 137         | 23%   | SR 90         | 1%       | I 131          | 79%      | I 131    | 1%  | CS 137 | 4%  | CO 58  | 1%  |
|                                       | I 131     | 1%                | CS 134         | 16%   | CS 137        | 10%      | H 3            | 18%      | CS 137   | 11% | CS 134 | 3%  | CO 60  | 3%  |
|                                       | CS 137    | 37%               | H 3            | 54%   | CS 134        | 10%      | C 14           | 1%       | CS 134   | 7%  | H 3    | 86% | SB 125 | 1%  |
|                                       | CS 134    | 14%               | C 14           | 3%  | H 3           | 71%      |                |          | H 3      | 74% | C 14   | 5%  | H 3    | 86% |
|                                       | C 14      | 35%               |                |   | C 14          | 4%       |                |          | C 14     | 4%  |        |     | C 14   | 5%  |
| CHILD                                 | SR 90     | 7%                | CS 137         | 25%   | SR 90         | 1%       | I 131          | 82%      | I 131    | 1%  | CS 137 | 4%  | CO 60  | 1%  |
|                                       | I 131     | 1%                | CS 134         | 16%   | CS 137        | 5%       | H 3            | 15%      | CS 137   | 11% | CS 134 | 2%  | H 3    | 88% |
|                                       | CS 137    | 38%               | H 3            | 52%   | CS 134        | 5%       | C 14           | 1%       | CS 134   | 7%  | H 3    | 84% | C 14   | 8%  |
|                                       | CS 134    | 14%               | C 14           | 5%  | H 3           | 78%      |                |          | H 3      | 72% | C 14   | 8%  |        |     |
|                                       | C 14      | 37%               |                |   | C 14          | 7%       |                |          | C 14     | 7%  |        |     |        |     |

TABLE VII-E-4

\* \* \* POPULATION WATER CONSUMPTION DOSES \* \* \*

| -----DOSE (MAN-REM)-----              |           |                   |                |   |               |            |                |          |          |        |        |      |        |        |
|---------------------------------------|-----------|-------------------|----------------|---|---------------|------------|----------------|----------|----------|--------|--------|------|--------|--------|
| PATHWAY                               | AGE GROUP | USAGE             | BONE           | LIVER   | TOTAL BODY    | THYROID    | KIDNEY         | LUNG     | GI-LLI   |        |        |      |        |        |
| DRINKING                              | ADULT     | 7.12E+07          | 7.08E-03       | 1.75E-02  | 1.60E-02      | 5.00E-02   | 1.35E-02       | 1.20E-02 | 1.23E-02 |        |        |      |        |        |
| DRINKING                              | TEENAGER  | 3.17E+06          | 1.43E-03       | 2.90E-03  | 2.27E-03      | 8.51E-03   | 2.17E-03       | 1.89E-03 | 1.87E-03 |        |        |      |        |        |
| DRINKING                              | CHILD     | 4.52E+06          | 5.76E-03       | 8.50E-03  | 5.69E-03      | 2.91E-02   | 6.13E-03       | 5.29E-03 | 5.06E-03 |        |        |      |        |        |
| DRINKING                              | TOTAL     | 2.89E+07          | 1.43E-02       | 2.90E-02  | 2.40E-02      | 8.80E-02   | 2.18E-02       | 1.92E-02 | 1.92E-02 |        |        |      |        |        |
| POPULATION=8.70E+04                   |           | DILUTION=3.13E+01 |                | TRANSIT TIME=3.10E+01 HR (INCLUDING 24 HR FOR TREATMENT FACILITY) |               |            |                |          |          |        |        |      |        |        |
| AVERAGE INDIVIDUAL CONSUMPTION (L/YR) |           |                   | ADULT=3.70E+02 |   | TEEN=2.60E+02 |            | CHILD=2.60E+02 |          |          |        |        |      |        |        |
| * * * ISOTOPE CONTRIBUTION * * *      |           |                   |                |   |               |            |                |          |          |        |        |      |        |        |
| AGE GROUP                             |           | BONE              |                | LIVER   |               | TOTAL BODY |                | THYROID  |          | KIDNEY |        | LUNG |        | GI-LLI |
| ADULT                                 |           |                   |                |   |               |            |                |          |          |        |        |      |        |        |
|                                       | SR 90     | 13%               | CS 137         | 19%   | SR 90         | 1%         | I 131          | 77%      | I 131    | 1%     | CS 137 | 2%   | CO 58  | 1%     |
|                                       | I 131     | 1%                | CS 134         | 14%   | CS 137        | 14%        | H 3            | 21%      | CS 137   | 8%     | CS 134 | 2%   | CO 60  | 3%     |
|                                       | CS 137    | 35%               | H 3            | 61%   | CS 134        | 12%        | CS 134         | 6%       | CS 134   | 6%     | H 3    | 90%  | SB 125 | 1%     |
|                                       | CS 134    | 14%               | C 14           | 2%  | H 3           | 67%        | C 14           | 2%       | H 3      | 80%    | C 14   | 3%   | H 3    | 87%    |
|                                       | C 14      | 33%               |                |   | C 14          | 2%         |                |          | C 14     | 3%     |        |      | C 14   | 3%     |
|                                       | FE 55     | 1%                |                |   |               |            |                |          |          |        |        |      |        |        |
| TEENAGER                              |           |                   |                |   |               |            |                |          |          |        |        |      |        |        |
|                                       | SR 90     | 10%               | CS 137         | 23%   | SR 90         | 1%         | I 131          | 79%      | I 131    | 1%     | CS 137 | 4%   | CO 58  | 1%     |
|                                       | I 131     | 1%                | CS 134         | 16%   | CS 137        | 10%        | H 3            | 18%      | CS 137   | 11%    | CS 134 | 3%   | CO 60  | 3%     |
|                                       | CS 137    | 37%               | H 3            | 54%   | CS 134        | 10%        | C 14           | 1%       | CS 134   | 7%     | H 3    | 86%  | SB 125 | 1%     |
|                                       | CS 134    | 14%               | C 14           | 3%  | H 3           | 71%        |                |          | H 3      | 74%    | C 14   | 5%   | H 3    | 86%    |
|                                       | C 14      | 35%               |                |   | C 14          | 4%         |                |          | C 14     | 4%     |        |      | C 14   | 5%     |
| CHILD                                 |           |                   |                |   |               |            |                |          |          |        |        |      |        |        |
|                                       | SR 90     | 7%                | CS 137         | 25%   | SR 90         | 1%         | I 131          | 82%      | I 131    | 1%     | CS 137 | 4%   | CO 60  | 1%     |
|                                       | I 131     | 1%                | CS 134         | 16%   | CS 137        | 5%         | H 3            | 15%      | CS 137   | 11%    | CS 134 | 2%   | H 3    | 88%    |
|                                       | CS 137    | 38%               | H 3            | 52%   | CS 134        | 5%         | C 14           | 1%       | CS 134   | 7%     | H 3    | 84%  | C 14   | 8%     |
|                                       | CS 134    | 14%               | C 14           | 5%  | H 3           | 78%        |                |          | H 3      | 72%    | C 14   | 8%   |        |        |
|                                       | C 14      | 37%               |                |   | C 14          | 7%         |                |          | C 14     | 7%     |        |      |        |        |

## -----CUMULATIVE TOTAL-----

| PATHWAY  | AGE GROUP   | USAGE    | BONE     | LIVER    | TOTAL BODY | THYROID  | KIDNEY   | LUNG     | GI-LLI   |
|----------|-------------|----------|----------|----------|------------|----------|----------|----------|----------|
| DRINKING | CUMUL TOTAL | 2.05E+08 | 1.03E-01 | 2.08E-01 | 1.72E-01   | 6.32E-01 | 1.56E-01 | 1.38E-01 | 1.38E-01 |

## HYDROSPHERE TRITIUM DOSE

| PATHWAY | AGE GROUP | USAGE    | BONE     | LIVER    | TOTAL BODY | THYROID  | KIDNEY   | LUNG     | GI-LLI   |
|---------|-----------|----------|----------|----------|------------|----------|----------|----------|----------|
| WATER   | TOTAL     | 2.20E+00 | 6.54E-11 | 6.54E-11 | 6.54E-11   | 6.54E-11 | 3.54E-11 | 6.54E-11 | 6.54E-11 |

TABLE E-5

\* \* \* RECREATION POPULATION DOSES \* \* \*

|                        |                      | DOSE (MAN-REM)           |          |          |
|------------------------|----------------------|--------------------------|----------|----------|
| PATHWAY                | AGE GROUP            | USAGE                    | SKIN     | THYROID  |
| SHORELINE              | TOTAL POPUL          | 4.10E+07                 | 1.74E-01 | 1.49E-01 |
| LOCATION-- DOWN STREAM |                      | SWF=0.2                  |          |          |
| DILUTION=0.73E+01      |                      | TRANSIT TIME=0.67E+00 HR |          |          |
| * * *                  | ISOTOPE CONTRIBUTION | * * *                    |          |          |
| AGE GROUP              | SKIN                 | TOTAL BODY               |          |          |
| ADULT                  |                      |                          |          |          |
|                        | CS 137 47%           | CS 137 47%               |          |          |
|                        | CS 134 16%           | CS 134 16%               |          |          |
|                        | CO 60 32%            | CO 60 32%                |          |          |
|                        | SB 125 2%            | SB 125 2%                |          |          |

|                        |                      | DOSE (MAN-REM)           |          |          |
|------------------------|----------------------|--------------------------|----------|----------|
| PATHWAY                | AGE GROUP            | USAGE                    | SKIN     | THYROID  |
| SWIMMING               | TOTAL POPUL          | 4.10E+07                 | 0.00E+00 | 1.48E-03 |
| LOCATION-- DOWN STREAM |                      |                          |          |          |
| DILUTION=0.73E+01      |                      | TRANSIT TIME=0.67E+00 HR |          |          |
| * * *                  | ISOTOPE CONTRIBUTION | * * *                    |          |          |
| AGE GROUP              | SKIN                 | TOTAL BODY               |          |          |
| ADULT                  |                      |                          |          |          |
|                        | I 131 9%             |                          |          |          |
|                        | CS 137 17%           |                          |          |          |
|                        | CS 134 27%           |                          |          |          |
|                        | CO 58 10%            |                          |          |          |
|                        | CO 60 27%            |                          |          |          |
|                        | SB 125 3%            |                          |          |          |
|                        | AG 110M 1%           |                          |          |          |

|                        |             | DOSE (MAN-REM)           |          |          |
|------------------------|-------------|--------------------------|----------|----------|
| PATHWAY                | AGE GROUP   | USAGE                    | SKIN     | THYROID  |
| BOATING                | TOTAL POPUL | 4.10E+07                 | 0.00E+00 | 7.41E-04 |
| LOCATION-- DOWN STREAM |             |                          |          |          |
| DILUTION=0.73E+01      |             | TRANSIT TIME=0.67E+00 HR |          |          |

TABLE VII-E-6

\* \* \* DOSE TO BIOTA \* \* \*  
MRADS PER .5YR

| DILUTION= 1.00E+00 | TRANSIT TIME= 0.00E+00 HR |          | TOTAL    |
|--------------------|---------------------------|----------|----------|
|                    | INTERNAL                  | EXTERNAL |          |
| FISH               | 6.04E+00                  | 1.16E+00 | 7.20E+00 |
| INVERTEBRATE       | 1.06E+01                  | 2.32E+00 | 1.29E+01 |
| ALGAE              | 5.61E+00                  | 2.37E-03 | 5.61E+00 |
| MUSKRAT            | 1.29E+01                  | 7.74E-01 | 1.37E+01 |
| RACCOON            | 2.92E+00                  | 5.80E-01 | 3.50E+00 |
| HERON              | 3.63E+01                  | 7.73E-01 | 3.71E+01 |
| DUCK               | 1.24E+01                  | 1.16E+00 | 1.36E+01 |

\* \* \* ISOTOPE CONTRIBUTION \* \* \*

| PATHWAY      | BODY   |     |
|--------------|--------|-----|
| FISH         | CS 137 | 7%  |
|              | CS 134 | 4%  |
|              | C 14   | 87% |
| INVERTEBRATE | C 14   | 98% |
| ALGAE        | CS 137 | 2%  |
|              | CS 134 | 1%  |
|              | C 14   | 94% |
| MUSKRAT      | SR 90  | 3%  |
|              | CS 137 | 19% |
|              | CS 134 | 12% |
|              | C 14   | 63% |
| RACCOON      | CS 137 | 3%  |
|              | CS 134 | 2%  |
|              | C 14   | 92% |
| HERON        | CS 137 | 41% |
|              | CS 134 | 29% |
|              | C 14   | 29% |
| DUCK         | SR 90  | 3%  |
|              | CS 137 | 18% |
|              | CS 134 | 10% |
|              | C 14   | 66% |