

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
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S. D. Bloom, NRC Project Engineer
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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

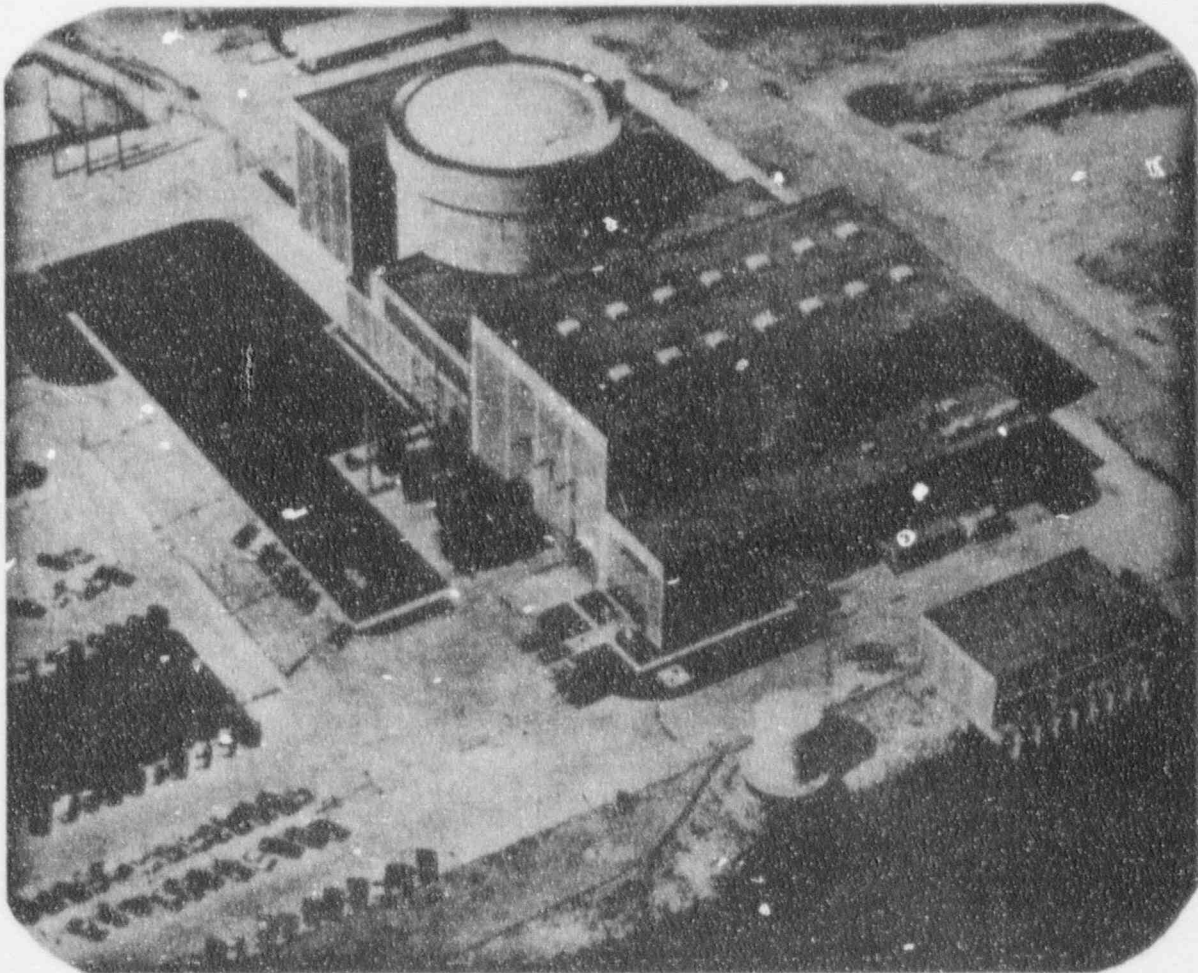


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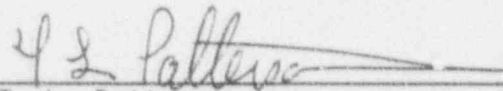
INTRODUCTION

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.



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 (mREM)</u>	<u>CRITICAL ORGAN DOSE (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 DOSE (mREM)</u>	<u>TOTAL BODY BETA 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 with Half-Lives > 8 Days</u>	<u>TOTAL BODY DOSE (mREM)</u>	<u>CRITICAL ORGAN DOSE (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 (mREM)</u>	<u>CRITICAL ORGAN DOSE (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 DOSE (mREM)</u>	<u>TOTAL BODY BETA 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 with Half-Lives > 8 Days</u>	<u>TOTAL BODY DOSE (mREM)</u>	<u>CRITICAL ORGAN DOSE (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 (D)100.0 MREM)					TOTAL MAN-REM		
	STATION EMPLOYEES	UTILITY EMPLOYEES	CONTRACT WORKERS & OTHERS	STATION EMPLOYEES	UTILITY EMPLOYEES	CONTRACT WORKERS & OTHERS		
REACTOR OPERATIONS & SURVEILLANCE								
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	10.515	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	
ROUTINE MAINTENANCE								
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	
INSERVICE INSPECTION								
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	
SPECIAL MAINTENANCE								
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	0.810	0.000		10.251	
WASTE PROCESSING								
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	
REFUELING								
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	
TOTALS								
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		2.872	
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	
GRAND TOTALS	68	1	40	21.346	0.275		17.501	

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

OMAHA PUBLIC POWER DISTRICT - NRC LICENSE: DPR-40

ANNUAL DOSE RANGES * (REM)	NUMBER OF INDIVIDUALS 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

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 3.16×10^2 Curies of inert gases. Over the third and fourth quarters of the reporting period, the gross gaseous activity release rates were 3.49×10^1 $\mu\text{Ci/sec}$ and 4.84×10^0 $\mu\text{Ci/Sec}$, respectively.

Radioactive halogens and particulates with half-lives greater than eight days released during the reporting period totaled 9.79×10^{-5} Curies. Over the third and fourth quarters of the reporting period, the halogen release rates were 5.93×10^{-6} $\mu\text{Ci/sec}$ and 1.30×10^{-6} $\mu\text{Ci/sec}$, respectively. The release rate for particulates with half lives greater than 8 days during the third and fourth quarters were 4.95×10^{-6} $\mu\text{Ci/sec}$ and 1.51×10^{-7} $\mu\text{Ci/sec}$, respectively.

Total radioactive tritium released during the reporting period totaled 2.89×10^1 Curies. Gross alpha radioactivity released during the reporting period totaled 4.74×10^0 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	DECAV	RM060	RM041	DECAV	RM060	RM041
A. FISSION&ACTIVATION GASES							
TOTAL RELEASE	CI	2.77E+02	3.17E-01	0.00E+00	0.00E+00	2.77E+02	3.73E+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
PERCENT OF LIMIT	%						
TECH SPEC = NONE							
B. IODINES							
TOTAL RELEASE	CI	0.00E+00	0.00E+00	3.97E-05	7.42E-06	4.71E-05	0.00E+00
IODINE - 131							
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
PERCENT OF LIMIT	%						
TECH SPEC = NONE							
C. PARTICULATES							
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
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
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
D. TRITIUM							
TOTAL RELEASE	CI	2.49E-01	0.00E+00	0.00E+00	0.00E+00	2.49E-01	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
PERCENT OF LIMIT	%						
TECH SPEC = NONE							

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

TABLE 1C

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	RM041	DECAY	RM060	
FISSION GASES							
XENON-133	2.73E+02	2.34E-01	0.00E+00	0.00E+00	2.74E+02	3.58E+01	0.00E+00
KRYPTON-85M	1.51E-02	0.00E+00	0.00E+00	0.00E+00	1.51E-02	2.07E-02	0.00E+00
XENON-131M	1.12E+00	1.01E-02	0.00E+00	0.00E+00	1.13E+00	5.81E-02	0.00E+00
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	2.86E-01	0.00E+00
XENON-135	4.84E-01	0.00E+00	0.00E+00	0.00E+00	4.84E-01	5.73E-01	0.00E+00
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	3.39E-01	0.00E+00
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	5.22E-01	0.00E+00
TOTAL FOR PERIOD	2.77E+02	3.17E-01	0.00E+00	0.00E+00	2.77E+02	3.73E+01	0.00E+00
IODINES							
IODINE-131 CTD.	0.00E+00	0.00E+00	3.07E-05	7.42E-06	4.71E-05	0.00E+00	0.00E+00
IODINE-133 CTD.	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
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	0.00E+00
PARTICULATES							
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	0.00E+00
TRITIUM & GROSS ALPHA							
TRITIUM	2.49E-01	0.00E+00	0.00E+00	0.00E+00	2.49E-01	3.95E-02	0.00E+00
GROSS ALPHA	0.00E+00	0.00E+00	2.98E-06	2.24E-07	3.20E-06	0.00E+00	0.00E+00

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

3 QUARTER

4 QUARTER

NUCLIDES IN CURIES	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, filter sludges, evaporator 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, contaminated 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	6.05	0.069	20
<i>Six-month Total (Type B)</i>		<u>43</u>	<u>19.71</u>	<u>0.243</u>	
c. Irradiated components and other 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 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	All other nuclides are <1% of waste
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 S-1 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>
WD110	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 08/30/1991 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.	0.	2.	1.	4.	2.	0.	1.	0.	0.	0.	0.	0.	0.	0.	10.	2.1
NE	0.	0.	0.	0.	2.	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.	2.1
ESE	0.	0.	0.	0.	0.	1.	1.	1.	0.	0.	0.	0.	0.	0.	0.	4.	3.2
SE	0.	0.	0.	0.	1.	0.	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.	0.	11.	5.9
S	0.	0.	0.	0.	0.	0.	1.	1.	1.	0.	0.	0.	0.	0.	0.	3.	3.1
SSW	0.	0.	0.	0.	0.	1.	0.	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.	0.	2.	1.1
WSW	0.	0.	0.	0.	0.	1.	0.	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.	0.	10.	1.8
WNW	0.	0.	0.	2.	2.	3.	0.	0.	0.	0.	0.	0.	0.	0.	0.	15.	2.1
NW	0.	0.	1.	5.	8.	9.	3.	3.	1.	0.	1.	0.	0.	0.	0.	30.	2.5
NNW	0.	0.	1.	9.	10.	6.	2.	0.	5.	9.	2.	2.	0.	0.	0.	46.	8.1
N	0.	0.	2.	3.	2.	0.	2.	0.	0.	0.	0.	0.	0.	0.	0.	9.	2.0
TOTAL	0.	0.	12.	27.	41.	28.	13.	6.	7.	11.	6.	3.	0.	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
FOR 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	
0.4		TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO			
		INF																	
NNE	0.0	0.0	0.0	3.0	4.0	5.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	15.0	2.5	
NE	0.0	0.0	1.0	3.0	3.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0	1.9	
ENE	0.0	0.0	1.0	2.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	2.4	
E	0.0	0.0	0.0	0.0	3.0	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	2.5	
ESE	0.0	0.0	0.0	2.0	1.0	1.0	2.0	1.0	3.0	1.0	1.0	1.0	0.0	0.0	0.0	0.0	14.0	3.4	
SE	0.0	0.0	0.0	1.0	1.0	1.0	2.0	2.0	0.0	4.0	2.0	2.0	0.0	0.0	0.0	0.0	14.0	3.8	
SSE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	6.0	6.0	6.0	7.0	3.0	4.0	5.0	0.0	47.0	5.2	
S	0.0	1.0	1.0	1.0	1.0	1.0	2.0	4.0	1.0	5.0	7.0	7.0	9.0	2.0	0.0	0.0	41.0	4.7	
SSW	0.0	1.0	1.0	0.0	1.0	1.0	1.0	3.0	1.0	5.0	0.0	1.0	0.0	0.0	0.0	0.0	13.0	3.4	
SW	0.0	0.0	1.0	0.0	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	4.0	
WSW	0.0	1.0	0.0	2.0	0.0	0.0	0.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	2.2	
W	0.0	0.0	2.0	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	4.0	1.7	
WNW	0.0	0.0	2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0	1.7	
NW	0.0	0.0	2.0	2.0	1.0	2.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0	2.1	
NNW	0.0	0.0	9.0	4.0	10.0	4.0	5.0	5.0	2.0	2.0	0.0	2.0	1.0	0.0	0.0	0.0	42.0	2.6	
N	0.0	0.0	4.0	10.0	4.0	5.0	1.0	2.0	1.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	28.0	2.2	
TOTAL	0.0	3.0	27.0	33.0	35.0	22.0	22.0	22.0	19.0	26.0	18.0	25.0	13.0	6.0	6.0	2.0	259.0	3.6	

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.	3.	0.	0.	0.	0.	0.	15.	3.4
SE	0.	0.	1.	0.	2.	0.	4.	2.	3.	5.	12.	0.	0.	0.	0.	28.	4.3
SSE	0.	0.	1.	0.	0.	1.	2.	6.	3.	6.	12.	0.	0.	0.	0.	35.	4.7
S	0.	0.	1.	0.	1.	1.	2.	4.	4.	3.	6.	2.	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.	0.	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.	1.	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 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.	2.	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.	8.	1.2
ENE	0.	2.	9.	11.	2.	2.	0.	1.	0.	0.	0.	0.	0.	0.	1.	28.	2.0
E	0.	1.	3.	16.	18.	14.	3.	0.	1.	0.	0.	0.	1.	0.	2.	58.	2.5
ESE	0.	0.	2.	6.	4.	8.	8.	4.	6.	1.	0.	0.	0.	0.	0.	39.	2.8
SE	0.	1.	2.	8.	7.	5.	11.	12.	22.	16.	9.	0.	0.	0.	0.	93.	3.6
SSE	0.	1.	0.	2.	3.	7.	9.	14.	23.	24.	17.	7.	5.	0.	0.	112.	4.3
S	0.	0.	3.	3.	4.	4.	11.	11.	13.	17.	16.	6.	3.	0.	1.	92.	4.2
SSW	0.	1.	3.	1.	1.	3.	5.	3.	5.	6.	4.	3.	0.	0.	0.	35.	3.7
SW	0.	1.	1.	3.	1.	3.	4.	1.	0.	1.	1.	1.	0.	0.	0.	17.	2.9
WSW	0.	0.	4.	4.	3.	0.	1.	0.	0.	0.	0.	0.	0.	0.	0.	12.	1.7
W	0.	2.	5.	2.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	10.	1.3
WNW	0.	4.	2.	2.	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.	26.	1.8
NNW	2.	8.	11.	15.	31.	21.	14.	5.	4.	1.	3.	0.	0.	0.	1.	115.	2.3
N	0.	1.	6.	9.	9.	2.	3.	0.	0.	0.	0.	0.	0.	0.	0.	30.	1.9
TOTAL	2.	29.	68.	88.	92.	69.	69.	52.	74.	66.	50.	17.	9.	0.	5.	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 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.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.0
NE	0.	3.	1.	1.	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.	6.	1.1
E	0.	1.	7.	3.	0.	0.	1.	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.	36.	2.0
SE	0.	4.	6.	10.	19.	19.	20.	10.	10.	2.	1.	0.	0.	0.	0.	101.	2.7
SSE	0.	1.	1.	1.	2.	8.	13.	19.	15.	6.	2.	0.	0.	0.	0.	69.	3.6
S	0.	4.	0.	1.	1.	2.	10.	10.	9.	4.	6.	1.	0.	0.	0.	48.	3.6
SSW	0.	1.	2.	5.	2.	6.	3.	3.	2.	2.	4.	0.	1.	0.	0.	31.	3.1
SW	1.	4.	1.	3.	1.	0.	1.	2.	1.	0.	1.	0.	0.	0.	0.	17.	2.8
WSW	2.	11.	3.	1.	1.	1.	1.	0.	1.	0.	0.	1.	0.	0.	0.	22.	1.4
W	1.	24.	11.	4.	2.	2.	0.	0.	0.	1.	0.	0.	0.	0.	0.	45.	1.4
WNW	0.	31.	19.	7.	1.	1.	0.	1.	1.	0.	0.	0.	0.	0.	0.	61.	1.1
NW	0.	20.	10.	14.	2.	0.	1.	1.	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.	30.	1.5
N	0.	5.	0.	1.	1.	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.	0.	538.	2.2

NUMBER OF INVALID OBSERVATIONS= 0.

PERCENT OF VALID OBSERVATIONS= 24.3

TABLE 158 - F

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 = +1.6 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
NNE	0.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	0.7
NE	0.	2.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.	0.6
ENE	0.	0.	2.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.	1.0
E	0.	0.	0.	2.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.	1.2
ESE	0.	3.	4.	2.	10.	2.	1.	0.	0.	0.	0.	0.	0.	0.	0.	22.	1.8
SE	2.	2.	3.	3.	11.	5.	2.	0.	0.	0.	0.	0.	0.	0.	0.	28.	2.0
SSE	0.	6.	2.	1.	0.	6.	1.	1.	0.	0.	0.	0.	0.	0.	0.	17.	1.8
S	0.	8.	3.	2.	1.	1.	6.	6.	3.	2.	4.	0.	0.	0.	0.	36.	2.8
SSW	2.	9.	2.	2.	3.	1.	2.	1.	1.	0.	0.	0.	0.	0.	0.	23.	1.5
SW	2.	13.	0.	1.	0.	1.	1.	0.	0.	0.	0.	0.	0.	0.	0.	21.	1.4
WSW	5.	16.	1.	0.	1.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	24.	0.7
W	1.	40.	7.	0.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	49.	0.7
WNW	1.	38.	17.	0.	1.	1.	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.	1.	0.	28.	1.2
NNW	0.	6.	2.	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.	4.	0.7
TOTAL	13.	166.	49.	14.	30.	18.	13.	8.	4.	5.	4.	0.	0.	1.	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
FOOT CALHOUN NUCLEAR STATION

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

		DATA USED --- WD10 WS10 DT100																
		DT100 = +4.1 TO +INF IN FREQUENCY																
		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	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.6
NE		0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.7
ENE		0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.6
E		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
ESE		0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.7
SE		0	7	4	0	0	0	0	0	0	0	0	0	0	0	0	11	0.8
SSE		0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	3	1.4
S		0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.4
SSW		0	3	1	0	0	0	0	0	0	0	0	0	0	0	0	4	0.7
SW		0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	2	2.2
WSW		0	3	0	1	0	0	1	0	0	0	0	0	0	0	0	5	1.4
W		1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.4
WNW		0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	3	1.0
NW		0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.6
NNW		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
N		0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2	1.1
TOTAL		1	26	8	4	0	0	1	0	1	0	0	0	0	0	0	41	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	0.5 TO	1.0 TO	1.5 TO	2.0 TO	2.5 TO	3.0 TO	3.5 TO	4.0 TO	4.5 TO	5.0 TO	6.0 TO	7.0 TO	8.0 TO	9.0 TO	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	0.00	0.09	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	0.05	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	0.14	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 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
MNE	0.00	0.00	0.14	0.18	0.23	0.09	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	0.04	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	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.23	3.4
E	0.00	0.00	0.00	0.00	0.14	0.05	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23	2.5
ESE	0.00	0.00	0.00	0.09	0.05	0.09	0.04	0.14	0.14	0.04	0.04	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	0.09	0.18	0.09	0.09	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	0.09	0.27	0.36	0.36	0.50	0.14	0.18	0.23	0.00	2.13	5.2
S	0.00	0.05	0.05	0.04	0.04	0.09	0.18	0.04	0.23	0.32	0.32	0.41	0.09	0.00	0.00	1.86	4.7
SSW	0.00	0.05	0.05	0.00	0.04	0.00	0.14	0.04	0.23	0.00	0.04	0.00	0.00	0.00	0.00	0.59	3.4
SW	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	0.04	0.18	4.3
WSW	0.00	0.05	0.00	0.09	0.03	0.00	0.05	0.04	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	0.09	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	0.00	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	0.05	0.09	0.04	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	0.23	0.23	0.09	0.00	0.09	0.04	0.00	0.00	0.00	1.90	2.6
N	0.00	0.00	0.16	0.45	0.18	0.23	0.05	0.09	0.05	0.00	0.04	0.00	0.00	0.00	0.00	1.27	2.2
TOTAL	0.00	0.15	1.24	1.49	1.59	0.39	1.00	0.85	1.28	0.81	1.12	0.59	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 WS10 DT100

SECTOR IS WIND DIRECTION NOT AFFECTED DIRECTION

SECTOR	0.0 TO	0.5 TO	1.0 TO	1.5 TO	2.0 TO	2.5 TO	3.0 TO	3.5 TO	4.0 TO	4.5 TO	5.0 TO	6.0 TO	7.0 TO	8.0 TO	9.0 TO	TOTAL	UBAR
0.4	0.9	1.4	1.9	2.4	2.9	3.4	3.9	4.4	4.9	5.4	5.9	6.9	7.9	8.9	INF		
NNE	0.00	0.00	0.09	0.05	0.00	0.05	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23	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	0.09	1.3
ENE	0.00	0.05	0.00	0.00	0.09	0.09	0.04	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	0.05	0.09	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	0.05	0.09	0.04	0.04	0.14	0.04	0.14	0.14	0.00	0.00	0.00	0.00	0.00	0.68	3.4
SE	0.00	0.00	0.05	0.00	0.09	0.00	0.18	0.09	0.09	0.23	0.54	0.00	0.00	0.00	0.00	1.27	4.3
SSE	0.00	0.00	0.05	0.00	0.00	0.04	0.09	0.27	0.14	0.27	0.54	0.14	0.04	0.00	0.00	1.59	4.7
S	0.00	0.00	0.05	0.00	0.05	0.04	0.09	0.18	0.14	0.14	0.27	0.09	0.04	0.00	0.00	1.13	4.4
SSW	0.00	0.00	0.00	0.05	0.00	0.09	0.09	0.00	0.09	0.05	0.04	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	0.04	0.09	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.63	2.7
WSW	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	0.14	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	0.14	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	0.04	1.1
NW	0.00	0.05	0.00	0.18	0.00	0.04	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	0.00	0.00	0.00	0.00	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	0.00	0.00	0.00	0.00	0.00	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	0.00	0.00	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
F.E.T. 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	9.0 TO INF	TOTAL	UBAR
NNE	0.00	0.04	0.14	0.00	0.09	C DC	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	0.00	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	0.04	1.7	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	0.09	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	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	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	0.32	0.23	0.00	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	0.04	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	0.00	1.59	3.7
SW	0.00	0.05	0.05	0.14	0.05	0.14	0.18	0.04	0.00	0.04	0.04	0.04	0.00	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	0.00	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	0.00	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	0.00	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	0.04	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	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	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	0.21	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 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	UBAH
	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO		
	0.4	0.9	1.4	1.9	2.4	2.9	3.4	3.9	4.4	4.9	5.9	6.9	7.9	8.9	INF		
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	0.14	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	0.00	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
EURET 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																TOTAL		UBAR	
SECTOR	TO	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	6.5	7.0	7.5	8.0	8.5	9.0	INF
0.4	0.9	1.4	1.9	2.4	2.9	3.4	3.9	4.4	4.9	5.4	5.9	6.4	6.9	7.4	7.9	8.4	8.9	9.4	9.9	10.4	10.9
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	0.00	0.00	0.00	0.00	0.00	0.00
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	0.00	0.00	0.00	0.00	0.00	0.00
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	0.00	0.00	0.00	0.00
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	0.00	0.00	0.00	0.00	0.00
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	0.00	0.00	0.00	0.00	0.00	0.00
SE	0.00	0.09	0.14	0.13	0.50	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
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	0.00	0.00	0.00	0.00	0.00	0.00
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	0.00	0.00	0.00	0.00	0.00	0.00
SSW	0.09	0.4	0.09	0.09	0.14	0.05	0.09	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
SW	0.09	0.59	0.00	0.05	0.00	0.04	0.04	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
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	0.00	0.00	0.00	0.00	0.00	0.00
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	0.00	0.00	0.00	0.00	0.00	0.00
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	0.00	0.00	0.00	0.00	0.00	0.00
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	0.00	0.00	0.00	0.00	0.00	0.00
NNW	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	0.00	0.00	0.00	0.00	0.00	0.00
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	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	0.60	7.50	2.23	0.64	1.37	0.80	0.59	0.35	0.18	0.23	0.18	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

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	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										
0.4	0.9	1.4	1.9	2.4	2.9	3.4	3.9	4.4	4.9	5.9	6.9	7.9	8.9	INF											
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	0.04	0.00	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	0.00	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

DT100 = -INF TO +INF IN PERCENT																	DATA USED -- WD10 .WS10 .DT100										TOTAL	HBAR				
SECTOR	SECTOR IS WIND DIRECTION NOT AFFECTED DIRECTION																															
	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	
	TO	0.4	TO	0.9	TO	1.4	TO	1.9	TO	2.4	TO	2.9	TO	3.4	TO	3.9	TO	4.4	TO	4.9	TO	5.9	TO	6.9	TO	7.9			TO	8.9	TO	INF
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	0.00	0.00	0.00	0.00	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	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	0.00	0.00	0.00	0.00	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	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	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	0.00	12.59	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	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	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	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	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	0.04	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	3.31	1.3
W	0.14	3.03	1.31	0.41	0.45	0.14	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	5.53	1.0
MNW	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	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	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	0.00	12.55	2.4
N	0.00	0.50	0.72	1.13	0.86	0.32	0.32	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	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															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 -1NF IN FREQUENCY

DATA USED -- WD10 .WS10 .DT100

SECTOR IS WIND DIRECTION NOT AFFECTED D. TION

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.	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
ENE	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	1.5
E	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
SE	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
S	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	1.6
SSW	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
WSW	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
WNW	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.	2.4
NW	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	6.	2.8
NNW	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
TOTAL	0.	0.	0.	0.	2.	4.	4.	0.	0.	0.	0.	0.	0.	0.	0.	12.	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
NNE	0.	0.	0.	0.	0.	1.	1.	0.	0.	0.	0.	0.	0.	0.	0.	2.	2.7
NE	0.	0.	4.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	5.	1.2
ENE	0.	0.	3.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.	1.1
E	0.	0.	6.	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
SE	0.	0.	0.	1.	0.	2.	1.	1.	0.	0.	0.	0.	0.	0.	0.	5.	2.7
SSE	0.	0.	0.	0.	0.	1.	1.	1.	0.	0.	0.	0.	0.	0.	0.	3.	3.2
S	0.	0.	1.	2.	4.	3.	4.	1.	1.	0.	3.	4.	0.	0.	0.	23.	3.6
SSW	0.	0.	1.	4.	1.	0.	2.	0.	0.	0.	4.	2.	0.	0.	1.	15.	4.0
SW	0.	1.	3.	6.	0.	0.	0.	0.	0.	0.	0.	1.	0.	0.	0.	11.	2.0
WSW	0.	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	1.7
W	0.	0.	0.	2.	0.	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.	3.	2.1
WNW	0.	0.	4.	1.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	6.	1.5
NW	0.	0.	2.	3.	2.	0.	5.	5.	0.	0.	0.	0.	0.	0.	0.	17.	2.7
NNW	0.	0.	0.	0.	1.	1.	2.	2.	0.	0.	0.	0.	0.	0.	0.	6.	3.1
N	0.	0.	0.	0.	0.	0.	2.	5.	1.	0.	0.	0.	0.	0.	0.	8.	3.7
TOTAL	0.	1.	26.	19.	9.	8.	18.	16.	2.	0.	7.	7.	0.	0.	1.	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	9.0 TO INF	TOTAL	UBAR
NNE	0.	0.	0.	1.	1.	2.	0.	0.	3.	2.	0.	0.	0.	0.	0.	9.	3.5
NE	0.	1.	0.	3.	0.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	5.	1.8
ENE	0.	1.	0.	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.	1.8
E	0.	0.	3.	3.	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.	7.	1.4
SE	0.	1.	0.	2.	0.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.	1.6
SSE	0.	0.	0.	3.	3.	3.	3.	4.	0.	0.	0.	0.	0.	0.	0.	16.	2.8
S	0.	0.	0.	2.	4.	7.	4.	2.	1.	0.	0.	0.	0.	0.	0.	20.	2.7
SSW	0.	0.	0.	5.	3.	0.	3.	1.	0.	0.	0.	0.	0.	0.	0.	12.	2.4
SW	0.	0.	1.	6.	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.	0.	9.	2.1
WSW	0.	0.	1.	2.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.	2.0
W	0.	0.	1.	4.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	6.	1.8
WNW	0.	0.	0.	4.	0.	0.	0.	2.	1.	0.	0.	0.	0.	0.	0.	7.	2.6
NW	0.	0.	2.	3.	3.	11.	6.	3.	3.	0.	0.	0.	0.	0.	0.	31.	2.8
NNW	0.	0.	1.	3.	0.	3.	4.	1.	0.	0.	0.	0.	0.	0.	0.	12.	2.5
N	0.	0.	1.	0.	0.	2.	4.	6.	2.	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.	165.	2.5

NUMBER OF INVALID OBSERVATIONS= 0.

PERCENT OF VALID OBSERVATIONS= 7.6

TABLE 15B - 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 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.	4.	8.	10.	15.	21.	17.	4.	0.	0.	0.	0.	0.	0.	80.	2.8
NE	0.	4.	15.	12.	9.	3.	5.	2.	0.	0.	0.	0.	0.	0.	0.	50.	1.8
ENE	0.	2.	8.	6.	6.	5.	0.	1.	1.	0.	0.	0.	0.	0.	0.	29.	1.8
E	0.	1.	5.	11.	14.	9.	4.	1.	0.	0.	0.	0.	0.	0.	0.	45.	2.1
ESE	0.	2.	8.	9.	6.	13.	3.	7.	2.	0.	0.	0.	0.	0.	0.	50.	2.3
SE	0.	0.	20.	18.	6.	15.	9.	10.	4.	1.	0.	0.	0.	0.	0.	83.	2.3
SSE	0.	1.	4.	7.	20.	27.	17.	12.	4.	1.	0.	0.	0.	0.	0.	94.	2.7
S	0.	1.	10.	17.	23.	14.	10.	9.	4.	5.	8.	5.	4.	2.	0.	112.	3.1
SSW	0.	1.	2.	6.	12.	6.	4.	4.	2.	2.	0.	2.	0.	0.	0.	41.	2.7
SW	0.	0.	8.	9.	3.	4.	0.	1.	1.	0.	0.	0.	0.	0.	0.	26.	1.9
WSW	0.	0.	8.	5.	2.	1.	0.	1.	0.	0.	0.	0.	0.	0.	0.	17.	1.7
W	0.	0.	8.	7.	4.	2.	1.	1.	0.	0.	0.	0.	0.	0.	0.	23.	1.8
WNW	0.	1.	9.	1.	3.	5.	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.	0.	140.	4.0
NNW	0.	3.	6.	7.	8.	15.	17.	13.	18.	9.	7.	9.	4.	1.	0.	117.	3.6
N	0.	1.	8.	9.	9.	15.	23.	27.	8.	5.	2.	1.	0.	0.	0.	108.	3.0
TOTAL	0.	19.	131.	135.	142.	162.	137.	124.	59.	53.	45.	28.	8.	3.	0.	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
FOF - 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.	1.	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.	1.	4.	6.	4.	6.	4.	1.	0.	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.	8.	5.	2.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	18.	1.3
WNW	0.	1.	4.	5.	3.	1.	0.	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 15B - 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 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.	4.	4.	1.	3.	1.	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.	7.	1.8
ENE	0.	1.	2.	3.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	6.	1.3
E	0.	3.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.	1.0
ESE	0.	2.	3.	5.	1.	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.	43.	1.9
SSE	1.	1.	2.	9.	6.	8.	5.	1.	0.	0.	0.	0.	0.	0.	0.	33.	2.2
S	0.	1.	3.	19.	17.	29.	1.	0.	1.	0.	0.	1.	0.	0.	0.	72.	2.3
SSW	0.	1.	3.	16.	6.	1.	1.	0.	0.	0.	0.	3.	0.	0.	0.	31.	2.2
SW	0.	3.	4.	6.	2.	5.	2.	0.	0.	0.	1.	0.	0.	0.	0.	23.	1.9
WSW	0.	8.	7.	0.	0.	1.	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.	31.	1.6
WNW	0.	1.	7.	7.	1.	3.	0.	0.	0.	0.	0.	0.	0.	0.	0.	19.	1.6
NW	0.	3.	8.	13.	6.	4.	2.	1.	1.	0.	0.	0.	0.	0.	0.	38.	1.9
NNW	0.	1.	7.	5.	2.	0.	1.	0.	1.	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.	38.	1.9
TOTAL	1.	36.	71.	129.	61.	78.	16.	2.	3.	0.	1.	4.	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
FCE- 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	0	1	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

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 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	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	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	0	126	2.6	
NE	0	9	23	11	4	6	2	0	0	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	6	8	0	1	1	0	0	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	15	9	4	1	0	0	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	9	14	3	7	2	0	0	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	14	29	12	13	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	154	2.1	
SSE	1	3	1	33	45	30	24	8	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	180	2.6	
S	0	3	20	53	62	33	19	9	9	18	12	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	288	2.9	
SSW	2	5	12	25	8	15	7	2	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	132	2.6	
SW	1	6	30	0	11	3	3	1	1	1	0	0	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	2	1	1	0	0	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	12	7	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	26	1.6	
WNW	0	6	25	18	12	5	4	4	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	85	2.0	
NW	1	9	41	31	30	42	29	16	30	27	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	289	3.1	
NNW	1	9	26	22	30	21	19	20	12	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	191	2.1	
NN	0	6	19	15	21	31	39	21	12	8	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	208	2.7	
N	0	8	23	18	34	36	39	11	5	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	218	2.5	
TOTAL	6	100	376	270	320	245	192	85	66	61	45	6	3	1	1	1	1	1	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	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO							
		0.4	0.9	1.4	1.9	2.4	2.9	3.4	3.9	4.4	4.9	5.9	6.9	7.9	8.9	INF							
NNE		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						0.09	7.7
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						0.23	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						0.14	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						0.27	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	0.0
SE		0.00	0.00	0.00	0.05	0.00	0.09	0.05	0.04	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	0.05	0.05	0.04	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	0.04	0.00	0.14	0.18	0.00	0.00	0.00						1.05	3.6
SSW		0.00	0.00	0.05	0.18	0.05	0.00	0.09	0.00	0.00	0.00	0.18	0.09	0.00	0.00	0.05						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	0.04	0.00	0.00	0.00						0.50	2.0
WSW		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	1.7
W		0.00	0.00	0.09	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.14	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						0.27	1.5
NW		0.00	0.00	0.09	0.14	0.09	0.00	0.23	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0.78	2.7
NW		0.00	0.00	0.00	0.00	0.05	0.04	0.09	0.09	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	0.09	0.23	0.05	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	0.00	0.32	0.31	0.00	0.00	0.05						5.22	2.8

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 DT100																TOTAL	UBAR
SECTOR	TO	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	TO	INF		
	0.4	0.9	1.4	1.9	2.4	2.9	3.4	3.9	4.4	4.9	5.9	6.9	7.9	8.9	9.0	TO	INF		
SECTOR IS WIND DIRECTION NOT AFFECTED DIRECTION																			
NNE	0.00	0.00	0.00	0.05	0.04	0.09	0.00	0.00	0.14	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.41	3.5
NE	0.00	0.05	0.00	0.14	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	3.23	1.8
ENE	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	0.00	0.00	0.00	0.00	0.09	1.8
E	0.00	0.00	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	0.00	0.00	0.28	1.4
ESE	0.00	0.05	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	0.00	0.32	1.4
SE	0.00	0.05	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	0.18	1.6
SSE	0.00	0.00	0.00	0.14	0.14	0.14	0.13	0.18	0.09	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.73	2.8
S	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	0.92	2.7
SSW	0.00	0.00	0.00	0.23	0.14	0.00	0.14	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.55	2.4
SW	0.00	0.00	0.05	0.27	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	0.41	2.1
WSW	0.00	0.00	0.05	0.09	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	0.18	2.0
W	0.00	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	0.00	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	0.32	2.6
NW	0.00	0.00	0.09	0.14	0.14	0.50	0.27	0.14	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.42	2.8
NNW	0.00	0.00	0.05	0.14	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	0.55	2.5
N	0.00	0.00	0.05	0.00	0.00	0.09	0.18	0.28	0.09	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	1.17	0.90	0.47	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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

DT100 = -0.5 TO -1.4 IN PERCENT																	
DATA USED --- WD10 ,WS10 ,DT100																	
SECTOR IS WIND DIRECTION NOT AFFECTED DIRECTLY																	
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		
	0.4	0.9	1.4	1.9	2.4	2.9	3.4	3.9	4.4	4.9	5.9	6.9	7.9	8.9	INF		
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	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	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	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	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	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	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	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	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	1.88	2.7
SW	0.00	0.00	0.37	0.41	0.14	0.18	0.00	0.05	0.04	0.00	0.00	0.00	0.00	0.00	0.00	1.19	1.9
WSW	0.00	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	0.78	1.7
W	0.00	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	1.05	1.8
WNW	0.00	0.05	0.41	0.04	1.14	0.23	0.23	0.09	0.14	0.09	0.00	0.00	0.00	0.00	0.00	1.42	2.5
NW	0.00	0.05	0.37	0.14	1.32	0.59	0.82	0.73	0.37	1.28	1.24	0.50	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	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	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	47.89	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 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	0.18	0.18	0.05	0.14	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60	1.9
NE	0.00	0.00	0.00	0.23	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.32	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	0.28	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	0.18	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	0.50	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	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	1.51	2.2
S	0.00	0.05	0.14	0.87	0.78	1.33	0.05	0.00	0.04	0.00	0.00	0.04	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	0.14	0.00	0.00	0.00	1.42	2.2
SW	0.00	0.14	0.18	0.27	0.09	0.23	0.09	0.00	0.00	0.00	0.05	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	0.73	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	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	0.87	1.6
NW	0.00	0.14	0.37	0.59	0.27	0.18	0.09	0.05	0.05	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	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.78	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	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	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	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		
SECTOR IS WIND DIRECTION NOT AFFECTED DIRECTION																			
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 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	0.09	0.73	0.73	0.69	1.10	1.06	0.96	0.32	0.09	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	3.53	1.7		
ENE	0.00	0.27	0.78	0.64	0.27	0.37	0.00	0.05	0.05	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	3.20	1.8		
ESE	0.00	0.28	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	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	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	0.04	0.00	0.00	0.00	0.00	8.24	2.6		
S	0.00	0.14	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	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	0.05	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	4.81	1.8		
WSW	0.00	0.41	1.37	0.50	0.14	0.09	0.05	0.05	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	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	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	1.24	0.50	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	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	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	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 HOUR	WS10 MPH	WD10 DEG	DT110 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 HOUR	WS10 MPH	WD10 DEG	DT110 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 HOUR	WS10 MPH	WD10 DEG	DT110 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 HOUR	WS10 MPH	WD10 DEG	DT110 DEG C
2	4.3	351.3	-1.5
3	5.6	3.1	-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 HOUR	WS10 MPH	WD10 DEG	DT110 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

STEP TIME JAN 7, 1991 HOUR 6 MINUTE 40

RELEASE NUMBER 91003

CONTAINMENT PURGE

STARTING TIME JAN 9, 1991 HOUR 2 MINUTE 12

TIME HOUR	WS10 MPH	WD10 DEG	DT110 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 HOUR	WS10 MPH	WD10 DEG	DT110 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	346.9	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	82.1	-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 HOUR	WS10 MPH	WD10 DEG	DT110 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 HOUR	WS10 MPH	WD10 DEG	DT110 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 HOUR	WS10 MPH	WD10 DEG	DT110 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 HOUR	WS10 MPH	WD10 DEG	DT110 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 HOUR	WS10 MPH	WD10 DEG	DT110 DEG C
17	6.4	103.2	-1.6
18	6.3	97.6	-1.6
19	7.1	95.9	-1.7
20	5.8	96.4	-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 HOUR	WS10 MPH	WD10 DEG	DT110 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 HOUR	WS10 MPH	WD10 DEG	DT110 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 HOUR	WS10 MPH	WD10 DEG	DT110 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 HOUR	WS10 MPH	WD10 DEG	DT110 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	3.1	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	168.0	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	356.7	-0.7
19	13.0	0.5
20	278.2	0.5
21	285.6	1.5
22	276.7	1.8
23	284.7	1.9
24	281.9	1.5
25	280.4	0.3
26	273.2	0.6
27	267.0	1.0
28	298.3	0.4
29	232.1	0.6
30	239.0	0.5
31	248.3	0.6
32	213.3	2.1
33	359.8	1.1
34	259.5	-0.6
35	178.2	-1.5
36	260.9	-2.1
37	41.3	-2.2
38	234.2	-1.9
39	296.4	-2.1
40	251.8	-1.9
41	343.9	-1.8
42	89.7	-0.9
43	164.1	1.1
44	232.9	2.8
45	252.7	3.0
46	187.1	4.0
47	86.4	5.4
48	125.4	4.7
49	201.8	3.3
50	272.0	1.3
51	273.8	1.1
52	274.7	0.3
53	284.0	-0.4
54	66.2	-1.3
55	63.5	-1.3
56	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	WS10 MPH	WD10 DEG	DT110 DEG C
13	16.2	315.0	-2.3
14	16.0	317.9	-2.5
15	15.8	311.8	-2.6
16	17.5	319.9	2.7
17	7.8	64.4	1.1
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

12	184.5	-2.1
13	192.5	-2.1
14	190.1	-2.0
15	185.2	-1.7
16	164.6	-1.5
17	136.0	-0.9
18	150.7	0.5
19	162.3	0.7
20	181.7	0.2
21	176.2	0.3
22	216.2	-0.2
23	209.6	-0.2
24	238.8	2.2
1	292.3	3.5
2	291.8	3.4
3	290.1	2.8
4	294.7	2.2
5	296.8	0.9
6	344.0	0.7
7	2.5	-0.4
8	11.5	-0.7
9	7.9	-1.2
10	19.7	-1.7
11	42.9	-3.0
12	54.3	-2.2
13	71.6	-2.2
14	81.8	-2.5
15	73.6	-1.9
16	59.3	-1.8
17	39.7	-1.6
18	328.7	-0.8
19	71.0	-0.6
20	63.4	-1.2
21	73.1	-1.3
22	68.2	-1.3
23	66.9	-1.3
24	354.2	-0.8
1	348.6	-0.5
2	335.2	-0.4
3	315.7	-0.2
4	26.7	0.6
5	9.1	1.0
6	329.9	0.9
7	322.6	1.3
8	343.3	1.0
9	321.4	1.0
10		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 HOUR	WS10 MPH	WD10 DEG	DT110 DEG C
14	2.0	320.1	-2.2
15	2.8	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 HOUR	WS10 MPH	WD10 DEG	DT110 DEG C
2	0.5	281.3	0.4
3	1.6	289.1	0.8
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	2.8	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	12.6	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	3.2	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 28, 1991 HOUR 14 MINUTE 15

TIME -HOUR	WS10 MPH	WD10 DEG	DT110 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	315.8	-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	-1.7
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	9.6	323.7	-1.6
8	8.4	327.7	-1.5
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	-1.5
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	-1.6
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	3.2	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

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RELEASE NUMBER 91014 CONTAINMENT PURGE

TIME HOUR	STARTING TIME	WS10 MPH	WD10 DEG	DT110 DEG C	MAR 7, 1991	HOUR 13 MINUTE 27
13		5.5	187.8	-2.0		
14		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	0.6		
1		9.0	184.7	0.7		
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			

TIME HOUR	STARTING TIME	WS10 MPH	WD10 DEG	DT110 DEG C	MAR 8, 1991 <th>HOUR 10 MINUTE 35 </th>	HOUR 10 MINUTE 35
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 -HOUR	WS10 MPH	WD10 DEG	DT110 DEG C
21	0.9	66.7	-0.4
22	1.3	327.2	-0.7
23	1.9	223.4	-0.5
24	1.3	118.8	0.5
25	1.3	272.9	0.3
26	1.2	271.7	1.0
27	2.6	256.7	1.5
28	1.4	247.8	2.0
29	0.8	273.0	2.4
30	1.6	303.2	2.5
31	1.4	291.2	2.2
32	0.1	152.7	1.4
33	2.0	96.9	-0.1
34	5.4	101.8	-1.0
35	6.2	119.1	-1.5
36	5.2	116.8	-1.6
37	5.7	110.3	-1.6
38	5.9	110.1	-1.6
39	5.4	116.1	-1.5
40	4.9	112.7	-1.5
41	3.3	118.3	-1.4
42	0.4	185.7	-1.3
43	1.0	257.2	-0.8
44	0.8	275.0	-0.8
45	0.6	305.8	-1.0
46	1.0	61.2	-1.3
47	0.3	101.6	-1.4
48	1.6	116.3	-1.3
49	1.9	113.0	-1.3
50	1.6	117.9	-1.4
51	1.8	118.7	-1.3
52	3.2	121.0	-1.4
53	1.8	76.4	-1.4
54	0.8	136.4	-1.4
55	1.4	132.8	-1.3
56	2.9	150.2	-1.5
57	2.9	158.4	-1.6
58	5.5	177.9	-1.8
59	5.8	188.5	-1.8
60	3.4	185.2	-1.7
61	4.4	167.3	-1.6
62	5.5	134.6	-1.8
63	6.6	122.8	-1.8
64	8.5	114.8	-1.7
65	7.4	113.4	-1.6
66	4.6	106.3	-1.4
67	1.7	100.3	-1.1
68	0.4	64.7	-1.1
69	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
WD10	WD10	DT110
MPH	DEG	DEG C
2.0	294.4	-2.0
2.9	7.1	-1.9
2.8	30.1	-1.7
0.6	9.2	-0.7
3.5	343.5	-0.9
3.9	347.1	-1.2
3.1	355.6	-1.3
5.0	2.6	-1.5
3.2	5.3	-1.5
2.4	11.9	-1.4
3.3	72.0	-1.4
1.5	42.9	-1.0

STOP TIME MAR 22, 1991 HOUR 2 MINUTE 30

STARTING TIME	MAR 22, 1991	HOUR 3 MINUTE 32
WD10	WD10	DT110
MPH	DEG	DEG C
1.5	42.9	-1.0
3.4	81.4	-1.3
1.4	50.8	-1.1
2.1	342.8	-1.0
1.4	302.6	-0.9
3.5	335.5	-1.6
4.8	347.2	-1.8
3.9	0.2	-1.9
5.0	10.2	-2.0
4.0	18.8	-1.9
4.8	30.0	-1.9
4.8	341.8	-1.8
4.6	337.0	-1.7
5.9	326.4	-2.1
6.9	345.2	-2.0
3.9	287.2	-1.7
5.0	258.9	-1.6
7.4	294.7	-1.9
9.5	304.2	-1.8
10.1	289.9	-1.6
10.4	281.4	-1.7
11.6	279.8	-1.4
10.4	278.1	-1.4
10.6	278.2	-1.4
9.6	278.4	-1.4
9.6	274.1	-1.4
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 HOUR	WS10 MPH	WD10 DEG	DT110 DEG C
1	3.5	185.1	-2.0
2	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 HOUR	WS10 MPH	WD10 DEG	DT110 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

2	10.9	168.4	-1.0
3	9.6	165.0	-1.0
4	10.4	170.1	-0.9
5	8.5	163.8	-1.0
6	4.4	135.9	-1.0
7	8.8	175.7	-1.4
8	10.5	183.8	-1.7
9	12.9	189.8	-1.9
10	13.4	192.6	-2.0
11	16.6	198.7	-2.1
12	16.4	204.2	-2.1
13	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 HOUR	WS10 MPH	WD10 DEG	DT110 DEG C
14	16.7	209.6	-2.1
15	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	397.9	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 HOUR	WS10 NPH	WD10 DEG	DT110 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	4.8	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	1.8	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	0.2	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
1	3.7	275.3	0.6
2	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
1	4.1	223.8	-2.3
2	4.0	222.2	-2.2
3	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	0.1	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 HOUR	WS10 MPH	WD10 DEG	DT110 DEG C
1	20.0	101.1	-1.2
2	21.7	102.0	-1.2
3	20.2	100.6	-1.3
4	18.6	97.7	-1.5
5	17.6	97.7	-1.6
6	18.9	99.9	-1.6
7	21.2	101.2	-1.3
8	15.2	104.0	-1.3
9	14.0	92.4	-1.6
10	14.0	89.8	-1.6
11	7.4	308.1	-1.5
12	6.1	23.3	-2.1
13	11.3	39.8	-1.7
14	12.6	76.5	-1.3
15	10.4	82.9	-1.6
16	12.4	91.2	-1.8
17	14.4	95.1	-1.8
18	15.0	98.0	-1.9
19	13.0	97.4	-1.9
20	11.9	99.7	-1.8
21	11.4	95.2	-1.8
22	12.0	100.5	-1.7
23	9.3	101.8	-1.7
24	11.1	103.5	-1.6
1	9.9	97.1	-1.5
2	6.9	83.0	-1.4
3	8.6	88.6	-1.5
4	10.0	90.1	-1.4
5	7.4	81.9	-1.2
6	12.4	95.0	-1.2
7	11.6	95.5	-1.3
8	9.4	49.0	-1.6
9	1.6	210.2	-1.9
10	3.1	283.3	-2.0
11	5.9	59.6	-2.1
12	4.8	10.1	-2.0
13	10.9	103.7	-2.4
14	14.6	98.3	-2.1
15	5.4	288.0	-1.6
16	5.4	94.6	-1.6
1	4.5	73.8	-1.8
2	3.7	192.7	-1.9
3	4.7	47.0	-1.9
4	4.7	58.1	-1.8
5	6.6	78.2	-1.9
6	4.4	71.1	-1.9
7	0.6	146.5	-1.7
8	1.2	358.3	-1.7
9	3.9	320.8	-2.0

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 HOUR	WS10 MPH	WD10 DEG	DT110 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 HOUR	WS10 MPH	WD10 DEG	DT110 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 HOUR	WS10 MPH	WD10 DEG	DT110 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	332.5	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

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	0.7	-0.9	
11	116.7	-1.7	
12	108.8	-1.8	
13	158.1	-1.6	
14	109.2	-1.6	
15	105.4	-2.0	
16	221.9	-1.8	
17	73.9	-1.5	
18	147.4	-1.5	
19	124.4	-1.4	
20	137.4	-1.2	
21	186.7	-1.0	
22	197.8	-1.0	
23	225.6	-1.1	
24	242.1	-1.1	
25	249.7	-1.1	
26	260.4	-2.0	
27	265.3	-2.0	
28	271.2	-2.0	
29	279.8	-1.8	
30	72.3	-1.5	
31	269.4	-1.0	
32	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 DI110
HOUR MPH DEG DEG C

16	15.5	145.3	-1.7
17	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	9.1	202.9	-0.1
20	7.9	7.3	1.3
21	8.1	267.4	-0.4
22	11.6	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 HOUR	WS10 MPH	WD10 DEG	DT110 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	174.0	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 HOUR	WS10 MPH	WD10 DEG	DT110 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	86.8	-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	7.3	352.0	-2.2
18	6.4	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 HOUR	WS10 MPH	WD10 DEG	DT110 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 HOUR	WS10 MPH	WD10 DEG	DT110 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 HOUR	WS10 MPH	WD10 DEG	DT110 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 HOUR	WS10 MPH	WD10 DEG	DT110 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	156.7	-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 HOUR	WS10 MPH	WD10 DEG	DT110 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	247.1	-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

1	8.0	197.6	0.8
2	8.5	197.5	0.7
3	8.1	161.6	0.2
4	5.4	207.4	-0.1
5	2.0	319.6	-0.7
6	1.9	306.4	-0.6
7	2.5	308.5	-1.2
8	2.1	33.2	-1.2
9	2.7	195.4	-1.8
10			

STOP TIME MAY 27, 1991 HOUR 9 MINUTE 9

RELEASE NUMBER 91030 CONTAINMENT PURGE

STARTING TIME MAY 27, 1991 / IUR 12 MINUTE 50

TIME HOUR	WS10 MPH	WD10 DEG	DT110 DEG C
13	7.2	190.6	-2.0
14	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	167.8	-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 HOUR	WS10 MPH	WD10 DEG	DT110 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 8 MINUTE 19

STARTING TIME MAY 31, 1991 HOUR 9 MINUTE 40

TIME HOUR	WS10 MPH	WD10 DEG	DT110 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 HOUR	WS10 MPH	WD10 DEG	DT110 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	8.3	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 HOUR	WS10 MPH	WD10 DEG	DT110 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 HOUR	WS10 MPH	WD10 DEG	DT110 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 HOUR	WS10 MPH	WD10 DEG	DT110 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	163.8	-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 HOUR	WS10 MPH	WD10 DEG	DT110 DEG C
20	9.2	132.7	-0.8
21	7.8	141.5	-0.1
22	7.5	137.4	0.5
23	8.5	150.4	-0.2
24	7.6	146.9	-0.2
1	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 HOUR	WS10 MPH	WD10 DEG	DT110 DEG C
4	5.1	346.7	-1.3
5	5.6	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	5.6	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	11.5	-1.2
6	239.1	-1.2
7	127.5	-1.2
8	150.9	-1.2
9	118.8	-1.5
10	136.5	-1.6
11	140.7	-1.8
12	143.1	-1.7
13	138.7	-1.7
14	130.7	-1.7
15	152.1	-1.7
16	129.6	-1.8
17	138.1	-1.7
18	149.1	-1.6
19	133.3	-1.5
20	135.8	-1.2
21	134.9	-0.6
22	142.0	0.2
23	132.0	0.3
24	132.8	0.2
1	141.6	-0.4
2	132.7	-0.5
3	131.4	-0.5
4	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 HOUR	WS10 MPH	WD10 DEG	DT110 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 HOUR	WS10 MPH	WD10 DEG	DT110 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 HOUR	WS10 MPH	WD10 DEG	DT110 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 HOUR	WS10 MPH	WD10 DEG	DT110 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 HOUR	WS10 MPH	WD10 DEG	DT110 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	
TIME	STARTING TIME	JAN 31, 1991	HOUR 13 MINUTE 51
13	WS10	WD10	DT110
14	MPH	DEG	DEG C
15	11.3	170.8	-1.6
16	6.0	174.8	-1.8
17	5.7	178.1	-1.7
18	4.7	167.1	-1.7
19	4.9	157.8	-1.7
20	7.1	163.3	0.1
21	7.7	163.5	1.6
	3.7	196.5	3.3
	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 HOUR	WS10 MPH	WD10 DEG	DT110 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	
TIME	STARTING TIME	STOP TIME	DT110
HOUR	WD10	WD10	DEG C
	MPH	DEG	
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 HOUR	WS10 MPH	WD10 DEG	DT110 DEG C
14	6.2	44.5	-2.4
15	6.2	50.9	-2.5

STOP TIME MAY 2,1991 HOUR 14 MINUTE 50

STARTING TIME MAY 2,1991 HOUR 14 MINUTE 52

TIME HOUR	WS10 MPH	WD10 DEG	DT110 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		DECAY TANK PURGE	
TIME	STARTING TIME	STOP TIME	DT110
HOUR	WD10	WD10	DEG C
	MPH	DEG	
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

JUNE 25, 1991 HOUR 4 MINUTE 25
 JUNE 25, 1991 HOUR 6 MINUTE 58

RELEASE NUMBER 91010		DECAY TANK PURGE	
TIME	STARTING TIME	STOP TIME	DT110
HOUR	WD10	WD10	DEG C
	MPH	DEG	
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

JUNE 25, 1991 HOUR 14 MINUTE 53
 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 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
INHALE								
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	6.12E-08	2.17E-06	2.17E-06	7.67E-06	2.17E-06	2.14E-06
INFANT	1.24E-06	1.23E-06	3.33E-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 LOCALITY # 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

BETA AIR DOSE = 2.50E-03 MILLRADS
 GAMMA AIR DOSE = 8.66E-04 MILLRADS
 TABLE VII-A-3

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	8.84E-06

FORT CALHOUN RECEPTORS IN ALL SECTORS 02-03-92
 SPECIAL LOCAL # 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

BETA AIR DOSE = 3.18E-03 MILLRADS
 GAMMA AIR DOSE = 1.10E-03 MILLRADS
 TABLE VII-A-6

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

BETA AIR DOSE = 1.92E-03 MILLRADS
 GAMMA AIR DOSE = 6.54E-04 MILLRADS
 TABLE VII-A-7

PATHWAY	T. BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	3.83E-04	3.83E-04	3.83E-04	3.83E-04	3.83E-04	3.83E-04	4.02E-04	1.09E-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	6.98E-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-08	8.37E-08	8.37E-08	8.37E-08	8.37E-08	8.37E-08	8.37E-08	9.78E-08
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 4.19 MILES ESE

BETA AIR DOSE = 3.11E-03 MILLRADS
GAMMA AIR DOSE = 1.07E-03 MILLRADS
TABLE VII-A-10

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	3.1E-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	8.20E-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

AT 4.74 MILES SE
12 SHEEP
02-03-92

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

TABLE VII-A-12

PATHWAY	T. BODY	SKIN	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	4.97E-07		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	2.21E-07
MEAT								
ADULT	7.37E-07		1.47E-07	8.09E-07	7.17E-07	2.63E-06	7.51E-07	7.02E-07
TEEN	4.44E-07		1.19E-07	5.07E-07	4.31E-07	1.82E-06	4.65E-07	4.19E-07
CHILD	5.45E-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

BETA AIR DOSE = 1.13E-02 MILLRADS
 GAMMA AIR DOSE = 4.02E-03 MILLRADS
 TABLE VII-A-14

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 LOCAL # 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

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

TABLE VII-A-16

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 LOCATION # 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	8.23E-06	8.05E-06

FORT CALHOUN RECEPTORS IN ALL SECTORS 02-03-82
 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
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
ADULT	9.27E-03	9.27E-03	9.27E-03	9.27E-03	9.27E-03	9.27E-03	9.71E-03	2.56E-02
TEEN	4.49E-07	4.49E-07	4.49E-07	4.49E-07	4.49E-07	4.49E-07	4.49E-07	5.25E-07
CHILD	4.49E-07	4.49E-07	4.49E-07	4.49E-07	4.49E-07	4.49E-07	4.49E-07	5.25E-07

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

BETA AIR DOSE = $8.83\text{E-}03$ MILLRADS
 GAMMA AIR DOSE = $3.13\text{E-}03$ MILLRADS

TABLE VII-A-23

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

KURT CALHOUN RECEPTORS IN ALL SECTORS 02-03-92
SPECIAL LOC 8 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
GROUNDE	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 LOCATION # 9 BEEF
 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 2.04 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

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

TABLE VII-A-29

PATHWAY	T BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	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 LOCATION # 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 LOCATION # 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
GROUNDS	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	4.88E-06	1.28E-06	1.18E-06
TEEN	7.54E-07	7.68E-07	2.26E-07	8.76E-07	7.31E-07	2.39E-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 LOCAL # 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 LOCATION # 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
TEEN	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 LOCATION # 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 97.71%	1.71E-02 97.77%	1.71E-02 99.63%	1.71E-02 97.65%	1.71E-02 97.71%	1.71E-02 85.26%	1.83E-02 97.91%	5.88E-02 99.35%
GROUND	7.84E-06 0.04%	7.84E-06 0.04%	7.84E-06 0.05%	7.84E-06 0.04%	7.84E-06 0.04%	7.84E-06 0.04%	7.84E-06 0.04%	9.16E-06 0.02%
INHAL	1.35E-04 0.77%	1.34E-04 0.77%	2.43E-06 0.01%	1.35E-04 0.77%	1.35E-04 0.77%	3.63E-04 1.81%	1.35E-04 0.72%	1.34E-04 0.23%
VEGET	1.75E-04 1.00%	1.66E-04 0.95%	3.75E-05 0.22%	1.78E-04 1.02%	1.73E-04 0.99%	1.65E-03 8.23%	1.66E-04 0.89%	1.63E-04 0.28%
COW MILK	4.47E-05 0.26%	4.25E-05 0.24%	5.81E-06 0.03%	4.78E-05 0.27%	4.69E-05 0.27%	7.81E-04 3.90%	4.25E-05 0.23%	4.20E-05 0.07%
MEAT	3.85E-05 0.22%	3.94E-05 0.23%	9.77E-06 0.06%	4.34E-05 0.25%	3.77E-05 0.22%	1.54E-04 0.77%	3.99E-05 0.21%	3.67E-05 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 SEMIANNUAL 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 CONCENTRATION OF NUCLIDES

NUCLIDE	CURIE/.5VR	* * * ADULT DOSE FACTORS * * *										SHORELINE		
		INGESTION DOSE FACTORS (MREM/PCI INTAKE)										(MREM/HR)/(PCI/M**2)		
		BONE	LIVER	TOTAL BODY	THYROID	KIDNEY	LU'NG	GI-LLI	SKIN	TOTAL BODY	RECON			
38SR	89	7.98E-06	3.08E-04	0.00E+00	8.84E-06	0.00E+00	0.00E+00	0.00E+00	4.94E-05	6.50E-13	5.60E-13	1.00E+00		
38SR	90	1.26E-04	7.58E-03	0.00E+00	1.86E-03	0.00E+00	0.00E+00	0.00E+00	2.19E-04	0.00E+00	0.00E+00	1.00E+00		
39V	90	1.26E-04	9.62E-09	0.00E+00	2.58E-10	0.00E+00	0.00E+00	0.00E+00	1.02E-04	2.60E-12	2.20E-12	1.00E+00		
53I	131	2.27E-02	4.16E-06	5.95E-06	3.41E-06	1.95E-03	1.02E-05	0.00E+00	1.57E-06	3.40E-09	2.80E-09	1.00E+00		
55CS	137	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	95	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	134	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	58	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	54	2.50E-04	0.00E+00	4.57E-06	8.72E-07	0.00E+00	0.00E+00	0.00E+00	1.40E-05	6.80E-09	5.80E-09	1.00E+00		
27CO	60	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	140	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	125	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	110M	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	1.05E-07	1.05E-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	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	1.09E-06	0.00E+00	0.00E+00	1.00E+00		
56BA	140	2.74E-04	2.03E-05	2.55E-06	1.33E-06	0.00E+00	8.67E-09	1.46E-08	4.18E-05	2.40E-09	2.10E-09	1.00E+00		
42MO	99	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	1.00E+00		
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	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	1.00E+00		
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	1.00E+00		

TABLE VII (Continued)

NUCLIDE	CURIE/5YR	INGESTION DOSE FACTORS										SHORELINE																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
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		BONE	LIVER	TOTAL BODY	THYROID	KIDNEY	LUNG	GI-LLI																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
38SR 89	7.98E-06	4.40E-04	0.00E+00	1.26E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

NUCLIDE	CURIE/ 5YR	INGESTION DOSE FACTORS										SHORELINE	
		(MREM/PCI INTAKE)										SKIN	TOTAL BODY
		BONE	LIVER	TOTAL BODY	THYROID	KIDNEY	LUNG	GI-LLI					
38SR	89	7.98E-06	1.32E-03	0.00E+00	3.77E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.11E-05	0.00E+00
38SR	90	1.26E-04	1.70E-02	0.00E+00	4.31E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.29E-04	0.00E+00
39V	90	1.26E-04	4.11E-08	0.00E+00	1.10E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.17E-04	0.00E+00
53I	131	2.27E-02	1.72E-05	1.73E-05	9.83E-06	5.72E-03	2.84E-05	0.00E+00	1.54E-06	0.00E+00	0.00E+00	1.54E-06	0.00E+00
55CS	137	3.27E-02	3.27E-04	3.13E-04	4.62E-05	0.00E+00	1.02E-04	3.67E-05	1.96E-06	0.00E+00	0.00E+00	1.62E-05	0.00E+00
41NB	95	1.50E-05	2.25E-08	8.76E-09	6.26E-09	0.00E+00	8.23E-09	0.00E+00	1.62E-05	0.00E+00	0.00E+00	2.07E-06	0.00E+00
55CS	134	1.75E-02	2.34E-04	3.84E-04	8.10E-05	0.00E+00	1.19E-04	4.27E-05	2.07E-06	0.00E+00	0.00E+00	1.05E-05	0.00E+00
27CO	58	1.12E-02	0.00E+00	1.80E-06	5.51E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.93E-05	0.00E+00
27CO	60	1.09E-02	0.00E+00	5.29E-06	1.56E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.84E-05	0.00E+00
57LA	140	2.54E-04	1.01E-08	3.53E-09	1.19E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.33E-05	0.00E+00
47AG	110M	5.58E-04	5.39E-07	3.64E-07	2.91E-07	0.00E+00	6.78E-07	0.00E+00	4.33E-05	0.00E+00	0.00E+00	2.03E-07	0.00E+00
1H	3	1.06E+02	0.00E+00	2.03E-07	2.03E-07	2.03E-07	2.03E-07	2.03E-07	2.03E-07	2.03E-07	2.03E-07	2.03E-07	2.03E-07
6C	14	8.55E-01	1.21E-05	2.42E-06	2.42E-06	2.42E-06	2.42E-06	2.42E-06	2.42E-06	2.42E-06	2.42E-06	2.42E-06	2.42E-06
56BA	140	2.74E-04	8.31E-05	7.28E-08	4.85E-06	0.00E+00	2.37E-08	4.34E-08	4.34E-08	4.34E-08	4.34E-08	4.21E-05	0.00E+00
53I	133	1.75E-03	5.92E-06	7.32E-06	2.77E-06	1.36E-03	1.22E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.95E-06	0.00E+00

NUCLIDE	CURIE/.5YR	INGESTION DOSE FACTORS										SHORELINE	
		(MREM/PCI INTAKE)										SKIN	TOTAL BODY
		BONE	LIVER	TOTAL BODY	THYROID	KIDNEY	LUNG	GI-LLI					
38SR 89	7.98E-06	2.51E-03	0.00E+00	7.20E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.16E-05			
38SR 90	1.26E-04	1.85E-02	0.00E+00	4.71E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.31E-04			
39V 90	1.26E-04	8.69E-08	0.00E+00	2.33E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.20E-04			
53I 131	2.27E-02	3.59E-05	4.23E-05	1.86E-05	1.39E-02	4.94E-05	0.00E+00	1.51E-06	0.00E+00	1.51E-06			
55CS 137	3.27E-02	5.22E-04	6.11E-04	4.33E-05	0.00E+00	1.64E-04	6.64E-05	1.91E-06	0.00E+00	1.46E-05			
41NB 95	1.50E-05	4.20E-08	1.73E-08	1.00E-08	0.00E+00	1.24E-08	0.00E+00	1.46E-05	0.00E+00	1.91E-06			
55CS 134	1.75E-02	3.77E-04	7.03E-04	7.10E-05	0.00E+00	1.81E-04	7.42E-05	1.91E-06	0.00E+00	8.97E-06			
27CO 58	1.12E-02	0.00E+00	3.60E-06	8.98E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.57E-05			
27CO 60	1.09E-02	0.00E+00	1.08E-05	2.55E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.77E-05			
57LA 140	2.54E-04	2.11E-08	8.32E-09	2.14E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.77E-05			
47AG 110M	5.58E-04	9.96E-07	7.27E-07	4.81E-07	0.00E+00	1.04E-06	0.00E+00	3.77E-05	0.00E+00	3.77E-05			
1H 3	1.06E+02	0.00E+00	3.08E-07	3.08E-07	3.08E-07	3.08E-07	3.08E-07	3.08E-07	3.08E-07	3.08E-07			
6C 14	8.55E-01	2.37E-05	5.06E-06	5.06E-06	5.06E-06	5.06E-06	5.06E-06	5.06E-06	5.06E-06	5.06E-06			
56BA 140	2.74E-04	1.71E-04	1.71E-07	8.81E-06	0.00E+00	4.06E-08	1.05E-07	4.20E-05	0.00E+00	4.20E-05			
53I 133	1.75E-03	1.25E-05	1.82E-05	5.33E-06	3.31E-03	2.14E-05	0.00E+00	3.08E-06	0.00E+00	3.08E-06			

TABLE VII-D-2

* * * AS LOW AS REASONABLY ACHIEVABLE * * *

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		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

	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	5%
	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-02	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 134 11% C 14 60%	CS 137 27% CS 134 11% C 14 60%	CS 137 49% CS 134 34% C 14 16%	CS 137 34% CS 134 32% C 14 32%	I 131 18% C 14 80%	CS 137 38% CS 134 25% C 14 36%	CS 137 24% CS 134 15% C 14 59%	CS 137 3% CS 134 2% C 14 91%
DRINKING	SR 90 10% I 131 1% CS 137 37% CS 134 14% C 14 35%	SR 90 10% I 131 1% CS 137 37% CS 134 14% C 14 35%	CS 137 23% CS 134 16% H 3 54% C 14 3% C 14 3%	SR 90 1% CS 137 10% CS 134 10% H 3 71% C 14 4%	I 131 80% H 3 17% C 14 1% H 3 74% C 14 4%	I 131 1% CS 137 11% CS 134 7% H 3 74% C 14 4%	CS 137 4% CS 134 3% H 3 86% C 14 5% C 14 5%	CO 58 1% CO 60 3% SB 125 1% H 3 86% C 14 5%
SHORELINE	CS 137 46% CS 134 16% CO 60 32% SB 125 2%	CS 137 47% CS 134 16% CO 60 32% 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%	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

	DOSE (MREM PER .5YR INTAKE)							
PATHWAY	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

	USAGE (KG/YR,HR/YR)	DILUTION	TIME(HR)	SHOREWIDTH FACTOR=0.2
FISH	6.9	7.3	24.00	
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
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%		
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

	DOSE (MREM PER .5YR INTAKE)						
	SKIN	BONE	LIVER	TOTAL BODY	THYROID	KIDNEY	LUNG
PATHWAY							
FISH		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
SHORELINE	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

GI-LLI
0.00E+00
5.79E-04
0.00E+00
5.79E-04

	USAGE (KG/YR,HR/YR)	DILUTION	TIME(HR)	SHOREWIDTH FACTOR=0.2
FISH	0.0	7.3	24.00	
DRINKING	330.0	30.8	18.60	

* * * ISOTOPE CONTRIBUTION * * *

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

	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 VI-7

* * * SELECTED LOCATION * * *

LOCATION IS SITE DISCHG.

TEENAGER DOSES

	DOSE (MREM PER .5YR INTAKE)							
PATHWAY	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 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%	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 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

	DOSE (MREM PER .5YR INTAKE)							
PATHWAY	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

	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 BCDV		THYROID		KIDNEY		LUNG		GI-LLI						
FISH	CS	137	27%	CS	137	47%	CS	137	19%	I	131	15%	CS	137	17%	CS	137	1%			
	CS	134	10%	CS	134	30%	CS	134	18%	C	14	83%	CS	134	20%	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-8-9

* * * SELECTED LOCATION * * *

LOCATION IS SITE DISCHG.

I N F A N T D O S E S

	DOSE (MREM PER .5YR INTAKE)							
PATHWAY	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						
DRINKING	SR	90	4%	I	131	1%	SR	90	1%	I	131	88%	I	131	2%	CS	137	5%	H	3	86%
	I	131	1%	CS	137	28%	CS	137	3%	H	3	9%	CS	137	11%	CS	134	3%	C	14	11%
	CS	137	36%	CS	134	17%	CS	134	3%	C	14	1%	CS	134	6%	H	3	80%			
	CS	134	13%	H	3	46%	H	3	79%	I	133	1%	H	3	69%	C	14	10%			
	C	14	42%	C	14	6%	C	14	10%				C	14	9%						

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%	I 137	38%	CS 137	22%	CS 137	5%
	CS 134	11%	CS 134	35%	CS 134	37%	C 14	88%	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	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	48%	C 14	70%		

NEPA DOSES

-----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	1.59E-01	4.60E-02	1.09E-01	6.46E-02	4.51E-02

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

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	53	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	8.61E-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	1%	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%				

-----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	TOTAL BODY	THYROID
SHORELINE	TOTAL POPUL	4.10E+07	1.74E-01	1.49E-01	1.49E-01
LOCATION- DOWN STREAM					
DILUTION=0.73E+01					
TRANSIT TIME=0.67E+00 HR					
SWF=0.2					
* * * 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	TOTAL BODY	THYROID
BOATING	TOTAL POPUL	4.10E+07	0.00E+00	7.41E-04	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
	INTERNAL	EXTERNAL	TOTAL
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%