INTRODUCTION

This report is submitted in accordance with Section 5.9.4 and Appendix B of the Technical Specifications of the Fort Calhoun Station Unit No. 1, Facility Operating License No. DPR-40.

This report covers only the period January 1, 1980, through June 30, 1980, inclusive.

S. C. Stevens
Manager
Fort Calhoun Station

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January 1, 1980 to June 30, 1980

I. Radioactive Effluent Release (5.9.4.a.1)

A. GASEOUS EFFLUENTS

Radioactive gaseous releases for the reporting period totalled 152.2 Curies of inert gases. The highest release rate was 7.91E+02 µCi/sec. or 0.95% of the Technical Specification limit (83,000 µCi/sec.). Averaged over each calendar quarter of the reporting period, the gross gaseous activity release rates were 1.92E+01 µCi/sec. or 0.023% and 1.46E-01 µCi/sec. or 0.0002% for each quarter respectively of the maximum release rate of the Technical Specifications (83,000 µCi/sec.). This is 0.145% and 0.001% respectively of the 16% value specified (13,280 µCi/sec.).

Radioactive halogens and particulates with half-lives greater than eight days released during the reporting period totalled 2.05E-03 Curies. The highest release rate for halogens with half-lives greater than eight days was 8.28E-05 µCi/sec. or 0.09% of the maximum release rate of the Technical Specifications (0.094 µCi/sec.). The highest release rate for particulates with half-lives greater than eight days was 2.64E-04 µCi/sec. or 13.2% of the maximum release rate of the Technical Specifications (0.002 µCi/sec.). Averaged over each calendar quarter of the reporting period, the halogen release rates were 2.47E-04 µCi/sec. or 0.26% and 1.60E-06 µCi/sec. or 0.002% for each quarter respectively of the maximum release rate of the Technical Specifications (0.094 µCi/sec.). This is 3.28% and 0.02% respectively of the 8% value specified (0.0075 µCi/sec.). Averaged over each calendar quarter of the reporting period, the particulate release rates

were 5.18E-06 µCi/sec. or 0.259% and 7.74E-06 µCi/sec. or 0.387% for each quarter respectively of the maximum release rate of the Technical Specifications (0.002 µCi/sec.). This is 3.24% and 4.84% respectively of the 8% value specified (1.6E-04 µCi/sec.).

Radioactive tritium released during the reporting period totalled 4.01E-01 Curies. Gross alpha radioactivity released during the reporting period totalled 3.22E-06 Curies.

TABLE 1A

EFFLUENT AND WASTE DISPOSAL REPORT

GASEOUS EFFLUENTS-SUMMATION OF ALL RELEASES

SEMIANNUAL FOR JAN THRU JUN 80

NUCLIDES IN CURIES		1 QUARTER CONT	1 QUARTER DECAY	1 QUARTER RM060	1 QUARTER TOTAL	2 QUARTER CONT	2 QUARTER DECAY	2 QUARTER RM060	2 QUARTER TOTAL
A. FISSION&ACTIVATION GASES									
TOTAL RELEASE	CI	1.26E+02	2.53E+01	0.0	1.51E+02	9.42E-01	2.03E-01	0.0	1.15E+00
AVG RELEASE RATE FOR PERIOD	UCI/SEC	1.60E+01	3.22E+00	0.0	1.92E+01	1.20E-01	2.58E-02	0.0	1.46E-01
PERCENT OF LIMIT TECH SPEC = 13280	%	1.20E-01	2.42E-02	0.0	1.45E-01	9.02E-04	1.94E-04	0.0	1.10E-03
B. IODINES									
TOTAL RELEASE IODINE - 131	CI	0.0	0.0	1.94E-03	1.94E-03	0.0	0.0	1.26E-05	1.26E-05
AVG RELEASE RATE FOR PERIOD	UCI/SEC	0.0	0.0	2.47E-04	2.47E-04	0.0	0.0	1.60E-06	1.60E-06
PERCENT OF LIMIT TECH SPEC = .00752	%	0.0	0.0	3.28E+00	3.28E+00	0.0	0.0	2.13E-02	2.13E-02
C. PARTICULATES									
PARTICULATES WITH HALF LIVES .GT. 8 DAYS	CI	0.0	0.0	4.07E-05	4.07E-05	0.0	0.0	6.09E-05	6.09E-05
AVG RELEASE RATE FOR PERIOD	UCI/SEC	0.0	0.0	5.18E-06	5.18E-06	0.0	0.0	7.74E-06	7.74E-06
PERCENT OF LIMIT TECH SPEC = .00016	%	0.0	0.0	3.24E+00	3.24E+00	0.0	0.0	4.84E+00	4.84E+00
GROSS ALPHA RADIOACTIVITY	CI	0.0	0.0	4.23E-07	4.23E-07	0.0	0.0	2.80E-06	2.80E-06
D. TRITIUM									
TOTAL RELEASE	CI	2.77E-01	7.83E-02	0.0	3.55E-01	3.18E-02	1.40E-02	0.0	4.59E-02
AVG RELEASE RATE FOR PERIOD	UCI/SEC	3.53E-02	9.96E-03	0.0	4.52E-02	4.05E-03	1.78E-03	0.0	5.83E-03
PERCENT OF LIMIT TECH SPEC = NONE	%								

TABLE 1C

EFFLUENT AND WASTE DISPOSAL REPORT

GASEOUS EFFLUENTS-SUMMATION OF ALL RELEASES

SEMIANNUAL FOR JAN THRU JUN 80

	1 QUARTER				2 QUARTER			
NUCLIDES IN CURIES	CONT	DECAY	RM060	TOTAL	CONT	DECAY	RM060	TOTAL
FISSION GASES								
XENON-133	1.22E+02	2.46E+01	0.0	1.47E+02	7.12E-01	1.96E-05	0.0	7.12E-01
KRYPTON-85M	1.74E-02	1.14E-03	0.0	1.86E-02	7.98E-04	6.70E-06	0.0	8.04E-04
XENON-131M	0.0	1.46E-02	0.0	1.46E-02	5.25E-03	7.62E-04	0.0	6.01E-03
KRYPTON-88	1.71E-02	2.29E-03	0.0	1.93E-02	6.32E-04	1.54E-05	0.0	6.47E-04
XENON-133M	8.29E-01	8.14E-02	0.0	9.10E-01	2.13E-02	3.51E-05	0.0	2.14E-02
XENON-135	4.70E-01	1.40E-02	0.0	4.84E-01	3.32E-02	5.44E-06	0.0	3.32E-02
KRYPTON-87	2.05E-02	8.05E-03	0.0	2.85E-02	1.34E-03	1.04E-05	0.0	1.35E-03
XENON-138	6.23E-02	9.50E-03	0.0	7.18E-02	4.36E-04	4.10E-05	0.0	4.77E-04
KRYPTON-85	1.88E+00	6.28E-01	0.0	2.50E+00	7.35E-02	2.02E-01	0.0	2.76E-01
XENON-135M	1.64E-02	2.67E-03	0.0	1.91E-02	1.69E-03	6.51E-06	0.0	1.70E-03
ARGON-41	2.98E-01	1.17E-03	0.0	2.99E-01	9.23E-02	4.29E-06	0.0	9.23E-02
TOTAL FOR PERIOD	1.26E+02	2.53E+01	0.0	1.51E+02	9.42E-01	2.03E-01	0.0	1.15E+00
IODINES								
IODINE-131 CTD.	0.0	0.0	1.94E-03	1.94E-03	0.0	0.0	1.26E-05	1.26E-05
IODINE-133 CTD.	0.0	0.0	5.69E-06	5.69E-06	0.0	0.0	3.24E-05	3.24E-05
IODINE-135 CTD.	0.0	0.0	1.61E-05	1.61E-05	0.0	0.0	1.26E-05	1.26E-05
TOTAL FOR PERIOD	0.0	0.0	1.96E-03	1.96E-03	0.0	0.0	5.76E-05	5.76E-05
PARTICULATES								
STRONTIUM-89	0.0	0.0	2.32E-07	2.32E-07	0.0	0.0	1.12E-07	1.12E-07
STRONTIUM-90	0.0	0.0	2.80E-07	2.80E-07	0.0	0.0	1.12E-07	1.12E-07
IODINE-131 PRF.	0.0	0.0	7.51E-07	7.51E-07	0.0	0.0	1.99E-06	1.99E-06
IODINE-133 PRF.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BARIUM-140	0.0	0.0	1.31E-05	1.31E-05	0.0	0.0	8.95E-06	8.95E-06
CESIUM-137	0.0	0.0	7.96E-06	7.96E-06	0.0	0.0	2.13E-05	2.13E-05
CESIUM-134	0.0	0.0	5.92E-06	5.92E-06	0.0	0.0	1.19E-05	1.19E-05
COBALT-58	0.0	0.0	8.56E-06	8.56E-06	0.0	0.0	7.46E-06	7.46E-06
MANGANESE-54	0.0	0.0	0.0	0.0	0.0	0.0	1.38E-06	1.38E-06
COBALT-60	0.0	0.0	0.0	0.0	0.0	0.0	4.71E-06	4.71E-06
IODINE-135 PRF.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LANTHANUM-140	0.0	0.0	3.96E-06	3.96E-06	0.0	0.0	2.96E-06	2.96E-06
TOTAL FOR PERIOD	0.0	0.0	4.07E-05	4.07E-05	0.0	0.0	6.09E-05	6.09E-05
ALPHA,TRITIUM & OTHER								
ALPHA	0.0	0.0	4.23E-07	4.23E-07	0.0	0.0	2.80E-06	2.80E-06
TRITIUM	2.77E-01	7.83E-02	0.0	3.55E-01	3.18E-02	1.40E-02	0.0	4.59E-02
GROSS BETA/GAMMA	0.0	0.0	1.98E-05	1.98E-05	0.0	0.0	3.31E-05	3.31E-05

Section II

RADIOACTIVE EFFLUENT RELEASES - LIQUID EFFLUENTS
TECHNICAL SPECIFICATION (5.9.4.a.2)

Table 2-A Liquid Effluents-Summation of All Releases

Table 2-B Liquid Effluents-Summation of All Releases

January 1, 1980 to June 30, 1980

II. Radioactive Effluent Releases (5.9.4.a.2)

B. LIQUID EFFLUENTS

During the six months a total of 2.10E-01 Curies of adioactive liquid materials less tritium and dissolved noble gases were released to the Missouri River at an average concentration of 1.12E-09 µCi/ml. This represents 1.12% of the limits specified in Appendix B to 10 CFR Part 20 (1.0E-07 µCi/ml) for unrestricted areas. The maximum concentration of total activity (excluding tritium) released to the unrestricted area and averaged during the release was 6.72E-07 µCi/ml primarily due to the inclusion of dissolved noble gases.

Dilution water during the period amounted to 1.83E+11 liters, while radioactive liquid waste volume was 1.37E+07 liters including 230 batch releases and steam generator blowdown.

Additionally, 11.1 Curies of tritium were discharged at an average concentration of 5.92E-08 µCi/ml or 0.002 of MPC (3.0E-03 µCi/ml).

Gross alpha ratiodacivity released during the reporting period totalled 1.44E-05 Curies and was discharged at an average concentration of 7.87E-14 µCi/ml or 3.0E-04% of MPC (3.0E-08 µCi/ml).

During the two calendar quarters in the reporting period, 1.53E-01 Curies and 5.72E-02 Curies of radioactive liquids were released. This represents 1.53% and 0.57% of the 10 Curie per calendar quarter specified as the Technical Specification limit.

TABLE 2A

EFFLUENT AND WASTE DISPOSAL REPORT

LIQUID EFFLUENTS-SUMMATION OF ALL RELEASES

SEMIANNUAL FOR JAN THRU JUN 80

		1 QUARTER	2 QUARTER
A. FISSION&ACTIVATION PRODUCTS			
TOTAL RELEASE (NO TRITIUM,GAS,ALPHA)	CI	1.53E-01	5.72E-02
AVG DILUTED CONCENTRATION	UCI/ML	1.59E-09	6.55E-10
PERCENT OF LIMIT TECH SPEC = 3.0E-8	%	5.31E+00	2.18E+00
B. TRITIUM			
TOTAL RELEASE	CI	8.51E+00	2.60E+00
AVG DILUTED CONCENTRATION	UCI/ML	8.86E-08	2.98E-08
PERCENT OF LIMIT TECH SPEC = 3.0E-3	%	2.95E-03	9.92E-04
C. DISSOLVED&ENTRAINED GASES			
TOTAL RELEASE	CI	5.30E-01	3.34E-03
AVG DILUTED CONCENTRATION	UCI/ML	5.52E-09	3.83E-11
PERCENT OF LIMIT	%		
D. GROSS ALPHA RADIOACTIVITY			
TOTAL RELEASE	CI	6.54E-06	7.85E-06
E. VOLUME OF WASTE RELEASE			
PRIOR TO DIL.	LITERS	6.69E+06	7.00E+06
F. VOLUME OF DILUTION WATER			
THIS PERIOD	LITERS	9.60E+10	8.73E+10

TABLE 2B

EFFLUENT AND WASTE DISPOSAL REPORT

LIQUID EFFLUENTS-SUMMATION OF ALL RELEASES

SEMIANNUAL FOR JAN THRU JUN 80

	1 QUARTER		2 QUARTER	
NUCLIDES IN CURIES	CONT	BATCH	CONT	BATCH
STRONTIUM-89	2.21E-05	1.37E-05	0.0*	0.0*
STRONTIUM-90	4.85E-05	1.53E-04	0.0*	0.0*
COBALT-57	4.33E-05	3.06E-04	8.33E-05	2.43E-04
MOLYBDENUM-99	3.82E-05	3.45E-04	7.08E-05	5.15E-05
TECHNETIUM-99M	1.85E-05	1.68E-04	3.44E-05	2.50E-05
CERIUM-141	7.08E-05	4.36E-04	1.29E-04	2.69E-04
TIN-117M	3.97E-05	2.37E-04	7.58E-05	1.48E-04
CHROMIUM-51	6.51E-04	3.35E-03	5.33E-04	1.56E-03
IODINE-131	8.16E-05	1.66E-02	8.29E-05	1.69E-04
IODINE-133	1.18E-04	1.14E-03	1.04E-04	1.30E-04
BARIUM-140	1.20E-04	9.14E-04	1.79E-04	3.37E-04
RUTHENIUM-103	4.89E-05	2.90E-04	8.15E-05	2.03E-04
CESIUM-137	5.31E-05	5.09E-02	8.63E-05	2.54E-02
ZIRCONIUM-95	8.32E-05	4.02E-04	1.48E-04	1.46E-04
NIOBIUM-95	4.98E-05	1.32E-03	7.44E-05	1.94E-04
CESIUM-134	5.46E-05	3.47E-02	9.45E-05	1.29E-02
COBALT-58	2.08E-04	3.33E-02	8.82E-05	9.55E-03
MANGANESE-54	4.42E-05	1.98E-03	9.49E-05	1.39E-03
CESIUM-136	6.50E-05	1.03E-03	1.14E-04	5.88E-05
IRON-59	9.48E-05	2.62E-04	1.48E-04	1.10E-04
ZINC-65	1.17E-04	2.54E-04	1.99E-04	9.68E-05
COBALT-60	5.30E-05	1.87E-03	7.57E-05	1.45E-03
LANTHANUM-140	6.18E-05	2.25E-04	8.41E-05	2.72E-05
ANTIMONY-124	4.24E-05	3.46E-04	9.18E-05	8.40E-05
TOTAL FOR PERIOD	2.23E-03	1.51E-01	2.67E-03	5.45E-02
DISSOLVED GASES				
ENTRAINED GASES				
XENON-133	3.06E-04	5.23E-01	3.16E-04	2.41E-03
XENON-135	8.24E-05	7.02E-03	6.95E-05	5.47E-04
TOTAL FOR PERIOD	3.88E-04	5.30E-01	3.85E-04	2.96E-03
OTHER, ALPHA & TRITIUM				
ALPHA	9.79E-07	5.56E-06	2.49E-06	5.36E-06
TRITIUM	5.94E-04	8.51E+00	2.43E-02	2.57E+00
GROSS BETA/GAMMA	0.0	0.0	0.0	0.0
TOTAL FOR PERIOD	5.95E-04	8.51E+00	2.43E-02	2.57E+00
AVG. CONC. IN UCI/ML				
ALPHA	1.25E-14	1.75E-12	3.53E-14	1.14E-12
TRITIUM	7.56E-12	2.90E-06	3.44E-10	6.55E-07

* Strontium Analysis not completed.

Section III

RADIOACTIVE EFFLUENT RELEASES - SOLID RADIOACTIVE WASTE
TECHNICAL SPECIFICATION (5.9.4.a.3)

January 1, 1980, to June 30, 1980

III. Radioactive Effluent Releases - Solid Radioactive Waste

Effluent and Waste Disposal Report, Technical Specification 5.9.4.a.3, January 1 thru June 30, 1980.

Solid Waste and Irradiated Fuel Shipments

A. SOLID WASTE SHIPPED OFFSITE FOR BURIAL OR DISPOSAL (Not Irradiated)

1. TYPE OF WASTE	MONTH SHIPPED	NUMBER OF SHIPMENTS	VOLUME CUBIC METERS	CURIE CONTENT	EST. TOTAL % ERROR
a. Spent resins, filter sludges, evaporator bottoms, etc.	Jan.	4	20.72	3.9476	± 20%
	Feb.	3	16.34	6.0585	± 20%
	Mar.	3	22.499	16.484	± 20%
	Apr.	3	19.697	802.167	± 20%
	May	3	12.013	148.3	± 20%
	June	5	16.768	1.9065	± 20%
Six Month Total (Type a.)		21	108.037	978.8636	± 20%
b. Dry compressable waste, contaminated equipment, etc.	Jan.	1	2.547	.0288	± 20%
	Feb.	5	45.846	7.7898	± 20%
	Mar.	2	9.55	.4755	± 20%
	Apr.	4	34.186	1.3394	± 20%
	May	4	41.389	3.3136	± 20%
	June	5	52.0296	5.6985	± 20%
Six Month Total (Type b.)		21	185.5476	18.6456	± 20%

A. (Continued)

1. TYPE OF WASTE	MONTH SHIPPED	NUMBER OF SHIPMENTS	VOLUME CUBIC METERS	CURIE CONTENT	EST. TOTAL % ERROR
c. Irradiated components and other categories	Jan.	0	N/A	N/A	N/A
	Feb.	0	N/A	N/A	N/A
	Mar.	0	N/A	N/A	N/A
	Apr.	0	N/A	N/A	N/A
	May	0	N/A	N/A	N/A
	June	0	N/A	N/A	N/A
Six Month Total (Type c.)		0	N/A	N/A	N/A

2. ESTIMATE OF MAJOR NUCLIDE COMPOSITION (by type of waste)

a.	Cs^{137}	49.59%	485.42 Ci
	Cs^{134}	42.19%	412.98 Ci
	Co^{58}	7.28%	71.26 Ci
	Mn^{54}	.938%	9.18 Ci
b.	Cs^{137}	49.59%	9.25 Ci
	Cs^{134}	42.19%	7.87 Ci
	Co^{58}	7.28%	1.36 Ci
	Mn^{54}	.938%	0.17 Ci
c.	N/A	N/A	N/A

All Other Nuclides Less Than 0.1% of total composition.

3. SOLID WASTE DISPOSITION

Number of Shipments	Transportation Mode	Destination
23	Closed, Sole Use Vehicle	Barnwell, SC
4	Closed, Sole Use Vehicle	Richland, Washington

4. IRRADIATED FUEL SHIPMENTS DISPOSITION

Number of Shipments	Transportation Mode	Destination
0	N/A	N/A

Section IV

JOINT FREQUENCY DISTRIBUTION WIND DIRECTION VS. WIND SPEED BY STABILITY CLASS AND METEOROLOGY DATA PER BATCH RELEASE (Regulatory Guide 1.21)

January 1, 1980 to June 30, 1980

IV. 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.

TABLE 15B - A

DATA PERIOD 01/01/1980 THROUGH 03/31/1980 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 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.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.0
ENE	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.0
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.	0.	0.0
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.	0.	0.0
NW	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.0
NNW	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.0
N	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.0
TOTAL	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.0

NUMBER OF INVALID OBSERVATIONS= 0.

PERCENT OF VALID OBSERVATIONS= 0.0

TABLE 15A - B

DATA PERIOD 01/01/1980 THROUGH 03/31/1980 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.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	1.3
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.	0.	0.0
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.	0.	0.0
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.	0.	0.0
NW	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.0
NNW	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.0
N	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.0
TOTAL	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	1.3

NUMBER OF INVALID OBSERVATIONS= 0.

PERCENT OF VALID OBSERVATIONS= 0.1

TABLE 15A - C

DATA PERIOD 01/01/1980 THROUGH 03/31/1980 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 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.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.0
ENE	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.0
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.	0.	0.0
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.	0.	0.0
NW	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.0
NNW	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.0
N	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.0
TOTAL	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.0

NUMBER OF INVALID OBSERVATIONS= 0.

PERCENT OF VALID OBSERVATIONS= 0.0

TABLE 158 - D

DATA PERIOD 01/01/1980 THROUGH 03/31/1980 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 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.	4.	2.	2.	1.	3.	3.	0.	0.	0.	0.	0.	0.	17.	2.6
NE	0.	0.	1.	2.	7.	2.	1.	3.	6.	1.	0.	0.	0.	0.	0.	23.	3.0
ENE	0.	0.	0.	1.	1.	0.	2.	0.	3.	3.	0.	0.	0.	0.	0.	10.	3.6
E	0.	0.	0.	0.	0.	1.	1.	1.	1.	0.	0.	0.	0.	0.	0.	4.	3.3
ESE	0.	0.	1.	0.	0.	0.	0.	0.	0.	1.	0.	0.	0.	0.	0.	2.	3.0
SE	0.	0.	0.	0.	0.	1.	0.	2.	1.	1.	0.	1.	0.	0.	0.	6.	4.2
SSE	0.	0.	0.	0.	1.	0.	0.	1.	1.	0.	3.	1.	0.	0.	0.	7.	4.6
S	0.	0.	0.	0.	0.	0.	0.	2.	0.	0.	0.	0.	0.	0.	0.	2.	3.9
SSW	0.	0.	0.	0.	0.	1.	0.	2.	0.	0.	0.	0.	0.	0.	0.	3.	3.2
SW	0.	0.	0.	1.	1.	1.	0.	0.	0.	0.	1.	0.	0.	0.	0.	4.	3.0
WSW	0.	0.	1.	0.	0.	1.	6.	0.	0.	0.	0.	1.	0.	0.	0.	9.	3.3
W	0.	0.	0.	0.	2.	0.	1.	2.	1.	1.	0.	0.	0.	0.	0.	7.	3.3
WNW	0.	1.	1.	1.	2.	0.	1.	1.	0.	1.	2.	3.	1.	0.	0.	14.	4.0
NW	0.	0.	3.	2.	4.	1.	8.	1.	2.	2.	6.	0.	2.	2.	3.	36.	4.4
NNW	0.	0.	2.	3.	3.	2.	9.	8.	2.	3.	13.	8.	2.	0.	0.	55.	4.3
N	0.	0.	5.	2.	2.	5.	6.	16.	8.	8.	4.	4.	0.	0.	0.	60.	3.7
TOTAL	0.	1.	16.	16.	25.	17.	36.	42.	28.	21.	29.	18.	5.	2.	3.	259.	3.8

NUMBER OF INVALID OBSERVATIONS= 51.

PERCENT OF VALID OBSERVATIONS= 14.6

TABLE 15B - E

DATA PERIOD 01/01/1980 THROUGH 03/31/1980 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 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.	2.	9.	10.	18.	8.	15.	14.	7.	9.	3.	0.	0.	0.	96.	3.4
NE	0.	0.	0.	1.	5.	6.	6.	9.	3.	7.	14.	0.	0.	0.	0.	51.	3.9
ENE	0.	0.	2.	2.	4.	8.	22.	4.	1.	2.	0.	0.	0.	0.	0.	45.	2.9
E	0.	1.	0.	1.	0.	5.	17.	8.	7.	3.	1.	0.	0.	0.	0.	43.	3.4
ESE	0.	1.	3.	5.	3.	3.	3.	6.	1.	2.	0.	0.	0.	0.	0.	27.	2.6
SE	0.	0.	4.	9.	8.	7.	3.	3.	3.	1.	7.	4.	1.	0.	0.	50.	3.3
SSE	0.	1.	2.	3.	8.	9.	5.	4.	4.	4.	24.	26.	6.	3.	1.	100.	4.9
S	0.	2.	0.	6.	7.	3.	9.	7.	6.	6.	11.	7.	3.	6.	11.	84.	5.2
SSW	0.	0.	3.	2.	4.	2.	7.	5.	9.	10.	16.	14.	3.	3.	13.	91.	5.5
SW	0.	1.	3.	3.	5.	2.	4.	5.	4.	4.	5.	7.	14.	13.	16.	86.	6.2
WSW	0.	3.	1.	8.	10.	7.	13.	3.	5.	6.	11.	5.	5.	5.	0.	82.	4.0
W	0.	1.	3.	3.	6.	15.	13.	12.	4.	1.	2.	1.	2.	0.	0.	63.	3.1
WNW	0.	2.	5.	10.	10.	7.	10.	9.	4.	0.	5.	3.	1.	0.	2.	68.	3.2
NW	0.	2.	13.	13.	12.	14.	8.	6.	5.	10.	7.	4.	1.	3.	3.	101.	3.3
NNW	0.	0.	9.	8.	22.	17.	23.	22.	5.	4.	8.	10.	9.	3.	1.	141.	3.7
N	0.	0.	2.	5.	14.	17.	12.	18.	12.	11.	13.	12.	2.	3.	0.	121.	4.0
TOTAL	0.	15.	52.	88.	128.	140.	163.	136.	87.	78.	133.	96.	47.	39.	47.	1249.	4.1

NUMBER OF INVALID OBSERVATIONS= 166.

PERCENT OF VALID OBSERVATIONS= 70.5

TABLE 15B - F

DATA PERIOD 01/01/1980 THROUGH 03/31/1980 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.	1.	0.	2.	0.	1.	0.	0.	0.	0.	0.	0.	0.	0.	5.	1.8
NE	0.	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	1.8
ENE	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.0
E	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	1.1
ESE	0.	0.	1.	0.	6.	0.	1.	0.	0.	0.	0.	0.	0.	0.	0.	8.	2.1
SE	0.	2.	5.	7.	5.	5.	0.	0.	0.	0.	0.	0.	0.	0.	0.	24.	1.8
SSE	0.	3.	2.	5.	5.	5.	3.	1.	0.	0.	0.	0.	0.	0.	0.	24.	2.0
S	0.	1.	2.	2.	0.	1.	0.	1.	2.	0.	1.	0.	0.	0.	0.	10.	2.6
SSW	0.	1.	1.	1.	1.	1.	0.	1.	2.	1.	4.	2.	0.	0.	0.	15.	3.9
SW	0.	1.	1.	1.	1.	1.	2.	7.	2.	1.	1.	2.	0.	1.	0.	21.	3.8
WSW	0.	2.	2.	0.	3.	0.	2.	0.	3.	1.	1.	3.	4.	2.	1.	24.	4.7
W	0.	3.	3.	0.	1.	2.	0.	0.	0.	1.	2.	2.	2.	0.	0.	16.	3.5
WNW	0.	2.	9.	5.	1.	2.	2.	0.	2.	0.	0.	0.	0.	0.	0.	23.	1.8
NW	0.	3.	5.	5.	9.	5.	2.	0.	0.	0.	0.	0.	0.	0.	0.	29.	1.9
NNW	0.	0.	2.	2.	2.	5.	3.	2.	0.	0.	0.	0.	0.	0.	0.	16.	2.5
N	0.	0.	0.	1.	0.	1.	7.	2.	1.	1.	0.	0.	0.	0.	0.	13.	3.3
TOTAL	0.	19.	35.	30.	36.	28.	23.	14.	12.	5.	9.	9.	6.	3.	1.	230.	2.8

NUMBER OF INVALID OBSERVATIONS= 15.

PERCENT OF VALID OBSERVATIONS= 13.0

TABLE 15B - G

DATA PERIOD 01/01/1980 THROUGH 03/31/1980 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 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.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.0
ENE	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.0
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.	1.	0.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.	1.1
SSE	0.	0.	1.	1.	2.	1.	1.	0.	0.	0.	0.	0.	0.	0.	0.	6.	2.1
S	0.	1.	0.	1.	1.	1.	0.	1.	0.	0.	0.	0.	0.	0.	0.	5.	2.0
SSW	0.	2.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.	0.6
SW	0.	1.	0.	1.	0.	0.	0.	0.	1.	0.	2.	0.	0.	0.	0.	5.	3.5
WSW	0.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.	0.	0.	0.	3.	4.8
W	1.	2.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.	3.6
WNW	0.	0.	3.	0.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.	1.4
NW	0.	1.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.	0.9
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	1.	9.	5.	4.	4.	2.	1.	1.	1.	0.	2.	2.	0.	0.	0.	32.	2.1

NUMBER OF INVALID OBSERVATIONS= 1.

PERCENT OF VALID OBSERVATIONS= 1.8

TABLE 158 - ALL

DATA PERIOD 01/01/1980 THROUGH 03/31/1980 RUN FROM TAPE SERIES TRI-EX

OMAHA PUBLIC POWER DISTRICT
FORT CALHOUN NUCLEAR STATION

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

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

SECTOR IS WIND DIRECTION NOT AFFECTED DIRECTION

SECTOR	0.0 TO 0.4	0.5 TO 0.9	1.0 TO 1.4	1.5 TO 1.9	2.0 TO 2.4	2.5 TO 2.9	3.0 TO 3.4	3.5 TO 3.9	4.0 TO 4.4	4.5 TO 4.9	5.0 TO 5.9	6.0 TO 6.9	7.0 TO 7.9	8.0 TO 8.9	9.0 TO INF	TOTAL	UBAR
NNE	0.	2.	6.	13.	14.	20.	10.	18.	17.	7.	9.	3.	0.	0.	0.	119.	3.2
NE	0.	0.	1.	4.	12.	8.	7.	12.	9.	8.	14.	0.	0.	0.	0.	75.	3.6
ENE	0.	0.	2.	3.	5.	8.	24.	4.	4.	5.	0.	0.	0.	0.	0.	55.	3.1
E	0.	1.	1.	1.	0.	6.	10.	9.	8.	3.	1.	0.	0.	0.	0.	48.	3.4
ESE	0.	1.	5.	5.	9.	3.	4.	6.	1.	3.	0.	0.	0.	0.	0.	37.	2.5
SE	0.	3.	9.	17.	13.	13.	3.	5.	4.	2.	7.	5.	1.	0.	0.	82.	2.9
SSE	0.	4.	5.	9.	16.	15.	9.	6.	5.	4.	27.	27.	5.	3.	1.	137.	4.3
S	0.	4.	2.	9.	8.	5.	9.	11.	8.	6.	12.	7.	3.	6.	11.	101.	4.8
SSW	0.	3.	4.	3.	5.	4.	7.	8.	11.	11.	20.	16.	3.	3.	13.	111.	5.2
SW	0.	3.	4.	6.	7.	4.	6.	12.	7.	5.	9.	9.	14.	14.	16.	116.	5.6
WSW	0.	6.	4.	8.	13.	8.	21.	3.	8.	7.	12.	11.	9.	7.	1.	118.	4.1
W	1.	6.	6.	3.	9.	17.	14.	14.	5.	3.	4.	3.	4.	0.	0.	89.	3.1
WNW	0.	5.	18.	16.	14.	9.	13.	10.	6.	1.	7.	6.	2.	0.	2.	109.	2.9
NW	0.	6.	22.	20.	25.	20.	18.	7.	7.	12.	13.	4.	3.	5.	6.	168.	3.3
NNW	0.	0.	13.	13.	27.	24.	35.	32.	7.	7.	21.	18.	11.	3.	1.	212.	3.7
N	0.	0.	7.	8.	16.	23.	25.	36.	21.	20.	17.	16.	2.	3.	0.	194.	3.8
TOTAL	1.	44.	109.	138.	193.	187.	223.	193.	128.	104.	173.	125.	58.	44.	51.	1771.	3.8

NUMBER OF INVALID OBSERVATIONS= 413.

PERCENT OF VALID OBSERVATIONS= 81.1

TABLE 159 - A

DATA PERIOD 01/01/1980 THROUGH 03/31/1980 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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
E	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
N	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

NUMBER OF INVALID OBSERVATIONS= 0.

PERCENT OF VALID OBSERVATIONS= 0.0

TABLE 159 - B

DATA PERIOD 01/01/1980 THROUGH 03/31/1980 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
NNE	0.0	0.0	0.06	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.06	1.3
NE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
E	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
N	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	0.0	0.0	0.06	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.06	1.3

NUMBER OF INVALID OBSERVATIONS= 0.

PERCENT OF VALID OBSERVATIONS= 0.1

TABLE 159 - C

DATA PERIOD 01/01/1980 THROUGH 03/31/1980 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 0.4	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
E	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
N	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

NUMBER OF INVALID OBSERVATIONS= 0.

PERCENT OF VALID OBSERVATIONS= 0.0

TABLE 159 - D

DATA PERIOD 01/01/1980 THROUGH 03/31/1980 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 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	0.11	0.23	0.11	0.11	0.06	0.17	0.17	0.0	0.0	0.0	0.0	0.0	0.0	0.96	2.6
NE	0.0	0.0	0.06	0.11	0.39	0.11	0.06	0.17	0.34	0.06	0.0	0.0	0.0	0.0	0.0	.30	3.0
ENE	0.0	0.0	0.0	0.06	0.06	0.0	0.11	0.0	0.17	0.17	0.0	0.0	0.0	0.0	0.0	0.56	3.6
E	0.0	0.0	0.0	0.0	0.0	0.06	0.06	0.06	0.06	0.0	0.0	0.0	0.0	0.0	0.0	0.23	3.3
ESE	0.0	0.0	0.06	0.0	0.0	0.0	0.0	0.0	0.0	0.06	0.0	0.0	0.0	0.0	0.0	0.11	3.0
SE	0.0	0.0	0.0	0.0	0.0	0.06	0.0	0.11	0.06	0.06	0.0	0.06	0.0	0.0	0.0	0.34	4.2
SSE	0.0	0.0	0.0	0.0	0.06	0.0	0.0	0.06	0.06	0.0	0.17	0.06	0.0	0.0	0.0	0.39	4.6
S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.11	3.9
SSW	0.0	0.0	0.0	0.0	0.0	0.06	0.0	0.11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.17	3.2
SW	0.0	0.0	0.0	0.06	0.06	0.06	0.0	0.0	0.0	0.0	0.06	0.0	0.0	0.0	0.0	0.23	3.0
WSW	0.0	0.0	0.06	0.0	0.0	0.06	0.34	0.0	0.0	0.0	0.0	0.06	0.0	0.0	0.0	0.51	3.3
W	0.0	0.0	0.0	0.0	0.11	0.0	0.06	0.11	0.06	0.06	0.0	0.0	0.0	0.0	0.0	0.39	3.3
WNW	0.0	0.06	0.06	0.06	0.11	0.0	0.06	0.06	0.0	0.06	0.11	0.17	0.06	0.0	0.0	0.79	4.0
NW	0.0	0.0	0.17	0.11	0.23	0.06	0.45	0.06	0.11	0.11	0.34	0.0	0.11	0.11	0.17	2.03	4.4
NNW	0.0	0.0	0.11	0.17	0.17	0.11	0.51	0.45	0.11	0.17	0.73	0.45	0.11	0.0	0.0	3.10	4.3
N	0.0	0.0	0.28	0.11	0.11	0.28	0.34	0.90	0.45	0.45	0.23	0.23	0.0	0.0	0.0	3.39	3.7
TOTAL	0.0	0.06	0.90	0.90	1.41	0.96	2.03	2.37	1.58	1.18	1.64	1.01	0.28	0.11	0.17	14.62	3.8

NUMBER OF INVALID OBSERVATIONS= 51.

PERCENT OF VALID OBSERVATIONS= 14.6

TABLE 159 - E

DATA PERIOD 01/01/1980 THROUGH 03/31/1980 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	0.0	0.06	0.11	0.51	0.56	1.02	0.45	0.85	0.79	0.39	0.51	0.17	0.0	0.0	0.0	5.42	3.4
NE	0.0	0.0	0.0	0.06	0.28	0.34	0.34	0.51	0.17	0.39	0.79	0.0	0.0	0.0	0.0	2.88	3.9
ENE	0.0	0.0	0.11	0.11	0.23	0.45	1.24	0.23	0.06	0.11	0.0	0.0	0.0	0.0	0.0	2.54	2.9
E	0.0	0.06	0.0	0.06	0.0	0.28	0.96	0.45	0.39	0.17	0.06	0.0	0.0	0.0	0.0	2.43	3.4
ESE	0.0	0.06	0.17	0.28	0.17	0.17	0.17	0.34	0.06	0.11	0.0	0.0	0.0	0.0	0.0	1.52	2.6
SE	0.0	0.0	0.23	0.51	0.45	0.39	0.17	0.17	0.17	0.06	0.39	0.23	0.06	0.0	0.0	2.82	3.3
SSE	0.0	0.06	0.11	0.17	0.45	0.51	0.28	0.23	0.23	0.23	1.35	1.47	0.34	0.17	0.06	5.65	4.9
S	0.0	0.11	0.0	0.34	0.39	0.17	0.51	0.39	0.34	0.34	0.62	0.39	0.17	0.34	0.62	4.74	5.2
SSW	0.0	0.0	0.17	0.11	0.23	0.11	0.39	0.28	0.51	0.56	0.90	0.79	0.17	0.17	0.73	5.14	5.5
SW	0.0	0.06	0.17	0.17	0.28	0.11	0.23	0.28	0.23	0.23	0.28	0.39	0.79	0.73	0.90	4.86	6.2
WSW	0.0	0.17	0.06	0.45	0.56	0.39	0.73	0.17	0.28	0.34	0.62	0.28	0.28	0.28	0.0	4.63	4.0
W	0.0	0.06	0.17	0.17	0.34	0.85	0.73	0.68	0.23	0.06	0.11	0.06	0.11	0.0	0.0	3.56	3.1
WNW	0.0	0.11	0.28	0.56	0.56	0.39	0.56	0.51	0.23	0.0	0.28	0.17	0.06	0.0	0.11	3.84	3.2
NW	0.0	0.11	0.73	0.73	0.68	0.79	0.45	0.34	0.28	0.56	0.39	0.23	0.06	0.17	0.17	5.70	3.3
NNW	0.0	0.0	0.51	0.45	1.24	0.96	1.30	1.24	0.28	0.23	0.45	0.56	0.51	0.17	0.06	7.96	3.7
N	0.0	0.0	0.11	0.28	0.79	0.96	0.68	1.02	0.68	0.62	0.73	0.68	0.11	0.17	0.0	6.83	4.0
TOTAL	0.0	0.85	2.94	4.97	7.23	7.90	9.20	7.68	4.91	4.40	7.51	5.42	2.65	2.20	2.65	70.52	4.1

NUMBER OF INVALID OBSERVATIONS= 166.

PERCENT OF VALID OBSERVATIONS= 70.5

TABLE 159 - F

DATA PERIOD 01/01/1980 THROUGH 03/31/1980 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	0.0	0.06	0.06	0.0	0.11	0.0	0.06	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.(	0.28	1.8
NE	0.0	0.0	0.0	0.06	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.06	1.8
ENE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
E	0.0	0.0	0.06	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.06	1.1
ESE	0.0	0.0	0.06	0.0	0.34	0.0	0.06	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.45	2.1
SE	0.0	0.11	0.28	0.39	0.28	0.28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.35	1.8
SSE	0.0	0.17	0.11	0.28	0.28	0.28	0.17	0.06	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.35	2.0
S	0.0	0.06	0.11	0.11	0.0	0.06	0.0	0.06	0.11	0.0	0.06	0.0	0.0	0.0	0.0	0.56	2.6
SSW	0.0	0.05	0.06	0.06	0.06	0.06	0.0	0.06	0.11	0.06	0.23	0.11	0.0	0.0	0.0	0.85	3.9
SW	0.0	0.06	0.06	0.06	0.06	0.06	0.11	0.39	0.11	0.06	0.06	0.11	0.0	0.06	0.0	1.19	3.8
WSW	0.0	0.11	0.11	0.0	0.17	0.0	0.11	0.0	0.17	0.06	0.06	0.17	0.23	0.11	0.06	1.35	4.7
W	0.0	0.17	0.17	0.0	0.06	0.11	0.0	0.0	0.0	0.06	0.11	0.11	0.11	0.0	0.0	0.90	3.5
WNW	0.0	0.11	0.51	0.28	0.06	0.11	0.11	0.0	0.11	0.0	0.0	0.0	0.0	0.0	0.0	1.30	1.8
NW	0.0	0.17	0.28	0.28	0.51	0.28	0.11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.64	1.9
NNW	0.0	0.0	0.11	0.11	0.11	0.29	0.17	0.11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.90	2.5
N	0.0	0.0	0.0	0.06	0.0	0.06	0.39	0.11	0.06	0.06	0.0	0.0	0.0	0.0	0.0	0.73	3.3
TOTAL	0.0	1.08	1.98	1.69	2.03	1.58	1.30	0.79	0.68	0.28	0.51	0.51	0.34	0.17	0.06	12.99	2.8

NUMBER OF INVALID OBSERVATIONS= 15.

PERCENT OF VALID OBSERVATIONS= 13.0

TABLE 159 - G

DATA PERIOD 01/01/1980 THROUGH 03/31/1980 RUN FROM TAPE SERIES TRI-EX

OMAHA PUBLIC POWER DISTRICT
FORT CALHOUN NUCLEAR STATION

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

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

SECTOR IS WIND DIRECTION NOT AFFECTED DIRECTION

SECTOR	0.0 TO 0.4	0.5 TO 0.9	1.0 TO 1.4	1.5 TO 1.9	2.0 TO 2.4	2.5 TO 2.9	3.0 TO 3.4	3.5 TO 3.9	4.0 TO 4.4	4.5 TO 4.9	5.0 TO 5.9	6.0 TO 6.9	7.0 TO 7.9	8.0 TO 8.9	9.0 TO INF	TOTAL	UBAR
NNE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
E	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SE	0.0	0.06	0.0	0.06	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.11	1.1
SSE	0.0	0.0	0.06	0.06	0.11	0.06	0.06	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.34	2.1
S	0.0	0.06	0.0	0.06	0.06	0.06	0.0	0.06	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.28	2.0
SSW	0.0	0.11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.11	0.6
SW	0.0	0.06	0.0	0.06	0.0	0.0	0.0	0.0	0.06	0.0	0.11	0.0	0.0	0.0	0.0	0.28	3.5
WSW	0.0	0.06	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.11	0.0	0.0	0.0	0.17	4.8
W	0.06	0.11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.17	0.6
WNW	0.0	0.0	0.17	0.0	0.06	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.23	1.4
NW	0.0	0.06	0.06	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.11	0.9
NNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
N	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	0.06	0.51	0.28	0.23	0.23	0.11	0.06	0.06	0.06	0.0	0.11	0.11	0.0	0.0	0.0	1.81	2.1

NUMBER OF INVALID OBSERVATIONS= 1.

PERCENT OF VALID OBSERVATIONS= 1.8

TABLE 159 - ALL

DATA PERIOD 01/01/1980 THROUGH 03/31/1980 RUN FROM TAPE SERIES TR -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	0.0	0.11	0.34	0.73	0.79	1.13	0.56	1.02	0.96	0.39	0.51	0.17	0.0	0.0	0.0	6.72	3.2
NE	0.0	0.0	0.06	0.23	0.68	0.45	0.39	0.68	0.51	0.45	0.79	0.0	0.0	0.0	0.0	4.23	3.6
ENE	0.0	0.0	0.11	0.17	0.28	0.45	1.35	0.23	0.23	0.28	0.0	0.0	0.0	0.0	0.0	3.11	3.1
E	0.0	0.06	0.06	0.06	0.0	0.34	1.02	0.51	0.45	0.17	0.06	0.0	0.0	0.0	0.0	2.71	3.4
ESE	0.0	0.06	0.28	0.28	0.51	0.17	0.23	0.34	0.06	0.17	0.0	0.0	0.0	0.0	0.0	2.09	2.5
SE	0.0	0.17	0.51	0.96	0.73	0.73	0.17	0.28	0.23	0.11	0.39	0.28	0.06	0.0	0.0	4.63	2.9
SSE	0.0	0.23	0.28	0.51	0.90	0.85	0.51	0.34	0.28	0.23	1.52	1.52	0.34	0.17	0.06	7.74	4.3
S	0.0	0.23	0.11	0.51	0.45	0.28	0.51	0.62	0.45	0.34	0.68	0.39	0.17	0.34	0.62	5.70	4.8
SSW	0.0	0.17	0.23	0.17	0.28	0.23	0.39	0.45	0.62	0.62	1.13	0.90	0.17	0.17	0.73	6.27	5.2
SW	0.0	0.17	0.23	0.34	0.39	0.23	0.34	0.68	0.39	0.28	0.51	0.51	0.79	0.79	0.90	6.55	5.6
WSW	0.0	0.34	0.23	0.45	0.73	0.45	1.19	0.17	0.45	0.39	0.68	0.62	0.51	0.39	0.06	6.66	4.1
W	0.06	0.34	0.34	0.17	0.51	0.96	0.79	0.79	0.28	0.17	0.23	0.17	0.23	0.0	0.0	5.02	3.1
WNW	0.0	0.28	1.02	0.90	0.79	0.51	0.73	0.56	0.34	0.06	0.39	0.34	0.11	0.0	0.11	6.15	2.9
NW	0.0	0.34	1.24	1.13	1.41	1.13	1.02	0.39	0.39	0.68	0.73	0.23	0.17	0.28	0.34	9.49	3.3
NNW	0.0	0.0	0.73	0.73	1.52	1.35	1.98	1.81	0.39	0.39	1.19	1.02	0.62	0.17	0.06	11.97	3.7
N	0.0	0.0	0.39	0.45	0.90	1.30	1.41	2.03	1.19	1.13	0.96	0.90	0.11	0.17	0.0	10.95	3.8
TOTAL	0.06	2.49	6.15	7.79	10.90	10.56	12.59	10.90	7.23	5.87	9.77	7.06	3.28	2.48	2.88	100.00	3.8

NUMBER OF INVALID OBSERVATIONS= 413.

PERCENT OF VALID OBSERVATIONS= 81.1

TABLE 158 - A

DATA PERIOD 4/01/1980 THROUGH 6/30/1980 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 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.	1.	0.	0.	0.	0.	1.	5.8
NE	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.0
ENE	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	1.3
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.	0.	0.0
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.	0.	0.0
NW	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.0
NNW	0.	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	1.5
N	0.	0.	0.	0.	0.	1.	1.	0.	0.	0.	0.	0.	0.	0.	0.	2.	2.9
TOTAL	0.	0.	1.	1.	0.	1.	1.	0.	0.	0.	1.	0.	0.	0.	0.	5.	2.9

NUMBER OF INVALID OBSERVATIONS= 0.

PERCENT OF VALID OBSERVATIONS= 0.2

TABLE 15B - B

DATA PERIOD 4/01/1980 THROUGH 6/30/1980 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.	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.	0.	0.0
E	0.	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	1.9
ESE	0.	0.	0.	0.	0.	0.	0.	0.	1.	0.	0.	0.	0.	0.	0.	1.	4.3
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.	1.	0.	0.	0.	2.	1.	0.	0.	0.	4.	4.9
S	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.0
SSW	0.	0.	0.	0.	0.	0.	0.	1.	0.	0.	1.	0.	0.	0.	0.	2.	4.9
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.	0.	0.0
NW	0.	0.	0.	0.	0.	0.	0.	5.	0.	0.	0.	0.	0.	0.	0.	5.	3.6
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.	1.	0.	0.	1.	6.	1.	0.	3.	1.	0.	0.	0.	13.	4.1

NUMBER OF INVALID OBSERVATIONS= 0.

PERCENT OF VALID OBSERVATIONS= 0.6

TABLE 15B - C

DATA PERIOD 4/01/1980 THROUGH 6/30/1980 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 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.	3.	0.	0.	0.	0.	0.	0.	0.	0.	3.	3.2
NE	0.	0.	0.	0.	0.	0.	0.	0.	1.	0.	0.	0.	0.	0.	0.	1.	4.1
ENE	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	0.	0.	0.	1.	6.4
E	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	1.	0.	0.	0.	2.	5.8
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.	1.	0.	0.	0.	0.	0.	0.	1.	4.2
SSE	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.	0.	0.	0.	0.	3.	5.3
S	0.	0.	0.	0.	0.	0.	1.	1.	0.	1.	0.	0.	0.	0.	0.	3.	3.8
SSW	0.	0.	0.	0.	0.	0.	1.	2.	2.	1.	0.	0.	0.	0.	0.	6.	3.9
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.	1.	0.	0.	0.	0.	0.	0.	0.	1.	3.8
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.	1.	0.	0.	0.	0.	0.	0.	1.	4.2
NW	0.	0.	0.	0.	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.	0.	1.	3.4
NNW	0.	0.	0.	0.	0.	0.	0.	0.	1.	0.	0.	0.	0.	0.	0.	1.	3.9
N	0.	0.	0.	0.	0.	0.	2.	2.	0.	0.	0.	0.	0.	0.	0.	4.	3.5
TOTAL	0.	0.	0.	0.	0.	0.	8.	6.	6.	2.	4.	2.	0.	0.	0.	28.	4.1

NUMBER OF INVALID OBSERVATIONS= 0.

PERCENT OF VALID OBSERVATIONS= 1.3

TABLE 15B - D

DATA PERIOD 4/01/1980 THROUGH 6/30/1980 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 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.	2.	2.	2.	3.	6.	4.	4.	3.	3.	1.	2.	0.	0.	33.	3.6
NE	0.	0.	2.	4.	3.	2.	4.	3.	0.	0.	2.	0.	0.	0.	0.	20.	2.7
ENE	0.	0.	1.	1.	3.	3.	3.	4.	5.	4.	1.	1.	0.	0.	0.	26.	3.6
E	0.	0.	0.	1.	4.	2.	2.	4.	4.	1.	4.	2.	0.	0.	0.	24.	3.9
ESE	0.	0.	0.	0.	3.	1.	4.	0.	2.	1.	8.	3.	0.	0.	0.	22.	4.4
SE	0.	0.	0.	1.	3.	4.	3.	0.	3.	1.	1.	2.	0.	0.	0.	18.	3.5
SSE	0.	0.	0.	3.	1.	2.	4.	6.	11.	7.	4.	1.	1.	1.	0.	41.	4.1
S	0.	0.	0.	1.	1.	1.	1.	1.	2.	0.	5.	4.	13.	3.	0.	32.	6.1
SSW	0.	0.	0.	1.	2.	5.	4.	2.	0.	0.	1.	4.	2.	1.	1.	23.	4.5
SW	0.	1.	0.	0.	0.	0.	3.	1.	1.	3.	7.	4.	0.	0.	0.	20.	4.9
WSW	0.	1.	0.	2.	1.	0.	2.	4.	0.	1.	2.	0.	0.	0.	0.	13.	3.4
W	0.	0.	0.	0.	0.	0.	0.	2.	3.	0.	1.	0.	1.	0.	0.	7.	4.7
WNW	0.	0.	0.	1.	3.	4.	1.	0.	0.	1.	0.	0.	1.	1.	0.	12.	3.5
NW	0.	1.	0.	1.	1.	1.	1.	0.	2.	1.	1.	4.	1.	0.	0.	14.	4.4
NNW	0.	1.	4.	2.	3.	1.	1.	1.	4.	1.	4.	1.	2.	2.	1.	28.	4.0
N	0.	0.	0.	3.	6.	3.	12.	4.	4.	2.	5.	4.	2.	0.	0.	45.	3.8
TOTAL	0.	5.	9.	23.	36.	32.	51.	36.	45.	26.	49.	31.	25.	8.	2.	378.	4.1

NUMBER OF INVALID OBSERVATIONS= 0.

PERCENT OF VALID OBSERVATIONS= 17.5

TABLE 15B - E

DATA PERIOD 4/01/1980 THROUGH 6/30/1980 RUN FROM TAPE SERIES TRI-EX

OMAHA PUBLIC POWER [illegible]CT
FORT CALHOUN NUCLE[illegible]ATION

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.	1.	3.	5.	15.	18.	16.	24.	22.	15.	20.	3.	3.	1.	0.	146.	3.7
NE	0.	1.	4.	8.	9.	11.	10.	11.	5.	3.	1.	0.	0.	0.	0.	63.	2.9
ENE	0.	1.	8.	7.	6.	6.	12.	7.	7.	4.	0.	0.	0.	0.	0.	58.	2.8
E	0.	3.	4.	8.	11.	5.	8.	6.	5.	5.	2.	0.	0.	0.	0.	57.	2.7
ESE	0.	0.	0.	7.	7.	7.	6.	13.	20.	7.	8.	2.	0.	1.	0.	78.	3.7
SE	0.	1.	3.	9.	6.	13.	10.	10.	13.	9.	5.	0.	0.	0.	0.	79.	3.3
SSE	0.	1.	1.	3.	7.	10.	7.	9.	9.	10.	12.	5.	2.	3.	0.	79.	4.1
S	0.	2.	0.	0.	3.	4.	11.	3.	8.	8.	12.	10.	4.	2.	0.	67.	4.6
SSW	0.	1.	3.	2.	2.	2.	2.	3.	9.	4.	5.	12.	10.	8.	1.	64.	5.5
SW	0.	0.	2.	1.	7.	3.	4.	5.	11.	8.	18.	8.	3.	4.	3.	77.	4.9
WSW	0.	3.	2.	6.	5.	2.	0.	1.	3.	1.	5.	7.	2.	1.	0.	38.	3.8
W	0.	5.	4.	3.	2.	3.	3.	6.	1.	4.	6.	9.	3.	0.	0.	49.	3.9
WNW	0.	6.	5.	2.	3.	2.	1.	3.	1.	6.	2.	2.	0.	0.	0.	33.	2.8
NW	1.	2.	9.	13.	8.	1.	2.	1.	0.	1.	1.	1.	0.	0.	0.	40.	2.0
NNW	0.	4.	7.	5.	19.	11.	12.	4.	2.	3.	1.	11.	7.	6.	5.	97.	4.0
N	1.	1.	7.	8.	18.	6.	15.	14.	9.	12.	11.	4.	10.	8.	4.	128.	4.1
TOTAL	2.	32.	62.	87.	128.	104.	119.	120.	125.	100.	109.	74.	44.	34.	13.	1153.	3.8

NUMBER OF INVALID OBSERVATIONS= 0.

PERCENT OF VALID OBSERVATIONS= 53.4

TABLE 158 - F

DATA PERIOD 4/01/1980 THROUGH 6/30/1980 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.	1.	2.	1.	3.	0.	0.	0.	0.	0.	0.	0.	0.	1.	8.	3.3
NE	0.	4.	1.	2.	4.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	12.	1.5
ENE	0.	0.	4.	2.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	6.	1.3
E	0.	1.	4.	0.	3.	1.	0.	0.	0.	0.	1.	0.	0.	0.	0.	10.	2.0
ESE	0.	3.	7.	9.	3.	0.	1.	2.	0.	0.	0.	0.	0.	0.	0.	25.	1.7
SE	2.	6.	13.	6.	8.	4.	2.	2.	0.	1.	0.	0.	0.	0.	0.	44.	1.7
SSE	0.	4.	1.	6.	1.	3.	1.	0.	0.	1.	0.	1.	0.	0.	0.	18.	2.1
S	0.	7.	2.	1.	5.	4.	0.	2.	0.	0.	0.	2.	1.	0.	1.	25.	2.7
SSW	0.	12.	6.	5.	1.	2.	4.	1.	4.	1.	0.	1.	0.	0.	0.	37.	2.0
SW	0.	5.	5.	1.	0.	3.	0.	6.	7.	1.	2.	1.	0.	1.	0.	32.	3.1
WSW	0.	7.	5.	0.	1.	0.	1.	2.	1.	2.	0.	3.	1.	1.	0.	24.	2.9
W	0.	0.	6.	3.	1.	1.	0.	1.	0.	0.	3.	0.	0.	0.	0.	15.	2.4
WNW	0.	5.	7.	2.	0.	0.	1.	0.	1.	0.	0.	0.	0.	0.	0.	16.	1.4
NW	0.	0.	16.	8.	7.	4.	0.	0.	0.	0.	0.	0.	0.	0.	0.	35.	1.6
NNW	0.	1.	5.	30.	16.	5.	4.	1.	0.	0.	0.	0.	0.	0.	0.	62.	1.9
N	0.	1.	2.	3.	6.	6.	1.	4.	3.	0.	0.	0.	0.	0.	0.	26.	2.6
TOTAL	2.	56.	85.	80.	57.	37.	15.	21.	16.	6.	6.	8.	2.	2.	2.	395.	2.1

NUMBER OF INVALID OBSERVATIONS= 1.

PERCENT OF VALID OBSERVATIONS= 18.3

TABLE 15B - G

DATA PERIOD 4/01/1980 THROUGH 6/30/1980 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 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.	0.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.	1.5
NE	0.	0.	2.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.	1.1
ENE	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	1.2
E	0.	0.	5.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	5.	1.0
ESE	0.	0.	4.	2.	1.	0.	0.	0.	1.	0.	0.	0.	0.	0.	0.	8.	1.7
SE	0.	5.	5.	4.	3.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	17.	1.2
SSE	0.	4.	8.	2.	1.	0.	4.	0.	1.	0.	1.	0.	0.	0.	0.	21.	1.8
S	0.	7.	5.	1.	1.	1.	0.	0.	0.	0.	2.	0.	0.	0.	0.	17.	1.6
SSW	0.	6.	3.	0.	2.	0.	0.	0.	1.	2.	0.	0.	0.	0.	0.	14.	1.7
SW	0.	6.	3.	0.	0.	1.	1.	2.	1.	1.	2.	1.	0.	0.	0.	18.	2.6
WSW	0.	5.	2.	0.	2.	0.	1.	2.	1.	0.	1.	1.	0.	0.	0.	15.	2.4
W	0.	3.	5.	0.	0.	0.	0.	0.	1.	0.	0.	0.	0.	0.	0.	9.	1.2
WNW	0.	0.	7.	3.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	10.	1.2
NW	0.	3.	11.	6.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	20.	1.2
NNW	0.	0.	3.	7.	12.	4.	0.	0.	0.	0.	0.	0.	0.	0.	0.	26.	2.0
N	0.	0.	0.	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.	2.6
TOTAL	0.	39.	66.	25.	23.	7.	6.	4.	6.	3.	6.	2.	0.	0.	0.	187.	1.7

NUMBER OF INVALID OBSERVATIONS= 0.

PERCENT OF VALID OBSERVATIONS= 8.7

TABLE 158 - ALL

DATA PERIOD 4/01/1980 THROUGH 6/30/1980 RUN FROM TAPE SERIES TRI-EX

OMAHA PUBLIC POWER DISTRICT
FORT CALHOUN NUCLEAR STATION

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

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

SECTOR IS WIND DIRECTION NOT AFFECTED DIRECTION

SECTOR	0.0 TO 0.4	0.5 TO 0.9	1.0 TO 1.4	1.5 TO 1.9	2.0 TO 2.4	2.5 TO 2.9	3.0 TO 3.4	3.5 TO 3.9	4.0 TO 4.4	4.5 TO 4.9	5.0 TO 5.9	6.0 TO 6.9	7.0 TO 7.9	8.0 TO 8.9	9.0 TO INF	TOTAL	UBAR
NNE	0.	2.	8.	9.	19.	24.	25.	28.	26.	18.	24.	4.	5.	1.	1.	194.	3.7
NE	0.	5.	9.	14.	16.	14.	14.	14.	6.	3.	3.	0.	0.	0.	0.	98.	2.6
ENE	0.	1.	15.	10.	9.	9.	15.	11.	12.	8.	1.	2.	0.	0.	0.	93.	2.9
E	0.	4.	13.	10.	18.	8.	10.	10.	9.	6.	8.	3.	0.	0.	0.	99.	2.9
ESE	0.	3.	11.	18.	14.	8.	11.	15.	24.	8.	16.	5.	0.	1.	0.	134.	3.3
SE	2.	12.	21.	20.	20.	21.	15.	12.	17.	11.	6.	2.	0.	0.	0.	159.	2.7
SSE	0.	9.	10.	14.	10.	15.	17.	15.	21.	18.	22.	8.	3.	4.	0.	166.	3.6
S	0.	16.	7.	3.	10.	10.	13.	7.	10.	9.	19.	16.	18.	5.	1.	144.	4.2
SSW	0.	19.	12.	8.	7.	9.	11.	9.	16.	8.	7.	17.	12.	9.	2.	146.	4.0
SW	0.	12.	10.	2.	7.	7.	8.	14.	20.	13.	29.	14.	3.	5.	3.	147.	4.2
WSW	0.	16.	9.	8.	9.	2.	4.	10.	5.	4.	8.	11.	3.	2.	0.	91.	3.3
W	0.	8.	15.	6.	3.	4.	3.	9.	5.	4.	10.	9.	4.	0.	0.	80.	3.4
WNW	0.	11.	19.	8.	6.	6.	3.	3.	3.	7.	2.	2.	1.	1.	0.	72.	2.4
NW	1.	6.	36.	28.	16.	6.	4.	6.	2.	2.	2.	5.	1.	0.	0.	115.	2.1
NNW	0.	6.	19.	45.	50.	21.	17.	6.	7.	4.	5.	12.	9.	8.	6.	215.	3.2
N	1.	2.	9.	14.	30.	17.	31.	24.	16.	14.	16.	8.	12.	8.	4.	206.	3.8
TOTAL	4.	132.	223.	217.	244.	181.	201.	193.	199.	137.	178.	118.	71.	44.	17.	2159.	3.4

NUMBER OF INVALID OBSERVATIONS= 25.

PERCENT OF VALID OBSERVATIONS= 98.9

TABLE 159 - A

DATA PERIOD 4/01/1980 THROUGH 6/30/1980 RUN FROM TAPE SERIES TRI-EY

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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.05	0.0	0.0	0.0	0.0	0.05	5.8
NE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENE	0.0	0.0	0.05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.05	1.3
E	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNW	0.0	0.0	0.0	0.05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.05	1.5
N	0.0	0.0	0.0	0.0	0.0	0.05	0.05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.09	2.9
TOTAL	0.0	0.0	0.05	0.05	0.0	0.05	0.05	0.0	0.0	0.0	0.05	0.0	0.0	0.0	0.0	0.23	2.9

NUMBER OF INVALID OBSERVATIONS= 0.

PERCENT OF VALID OBSERVATIONS= 0.2

TABLE 159 - B

DATA PERIOD 4/01/1980 THROUGH 6/30/1980 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
NNE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
E	0.0	0.0	0.0	0.05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.05	1.9
ESE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.05	0.0	0.0	0.0	0.0	0.0	0.0	0.05	4.3
SE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSE	0.0	0.0	0.0	0.0	0.0	0.0	0.05	0.0	0.0	0.0	0.09	0.05	0.0	0.0	0.0	0.18	4.9
S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.05	0.0	0.0	0.05	0.0	0.0	0.0	0.0	0.09	4.9
SW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.23	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.23	3.6
NNW	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
N	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	0.0	0.0	0.0	0.05	0.0	0.0	0.05	0.28	0.05	0.0	0.14	0.05	0.0	0.0	0.0	0.60	4.1

NUMBER OF INVALID OBSERVATIONS= 0.

PERCENT OF VALID OBSERVATIONS= 0.6

TABLE 159 - C

DATA PERIOD 4/01/1980 THROUGH 6/30/1980 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 0.4	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	0.14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.14	3.2
NE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.05	0.0	0.0	0.0	0.0	0.0	0.0	0.05	4.1
ENE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.05	0.0	0.0	0.0	0.05	6.4
E	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.05	0.05	0.0	0.0	0.0	0.09	5.8
ESE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.05	0.0	0.0	0.0	0.0	0.0	0.0	0.05	4.2
SSE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.14	0.0	0.0	0.0	0.0	0.14	5.3
S	0.0	0.0	0.0	0.0	0.0	0.0	0.05	0.05	0.0	0.05	0.0	0.0	0.0	0.0	0.0	0.14	3.8
SSW	0.0	0.0	0.0	0.0	0.0	0.0	0.05	0.09	0.09	0.05	0.0	0.0	0.0	0.0	0.0	0.28	3.9
SW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.05	3.8
W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.05	0.0	0.0	0.0	0.0	0.0	0.0	0.05	4.2
NW	0.0	0.0	0.0	0.0	0.0	0.0	0.05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.05	3.4
NNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.05	0.0	0.0	0.0	0.0	0.0	0.0	0.05	3.9
N	0.0	0.0	0.0	0.0	0.0	0.0	0.09	0.09	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.18	3.5
TOTAL	0.0	0.0	0.0	0.0	0.0	0.0	0.37	0.28	0.28	0.09	0.19	0.09	0.0	0.0	0.0	1.30	4.1

NUMBER OF INVALID OBSERVATIONS= 0.

PERCENT OF VALID OBSERVATIONS= 1.3

TABLE 159 - D

DATA PERIOD 4/01/1980 THROUGH 6/30/1980 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 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	0.05	0.09	0.09	0.09	0.14	0.28	0.18	0.18	0.14	0.14	0.05	0.09	0.0	0.0	1.53	3.6
NE	0.0	0.0	0.09	0.18	0.14	0.09	0.18	0.14	0.0	0.0	0.09	0.0	0.0	0.0	0.0	0.93	2.7
ENE	0.0	0.0	0.05	0.05	0.14	0.14	0.14	0.18	0.23	0.18	0.05	0.05	0.0	0.0	0.0	1.20	3.6
E	0.0	0.0	0.0	0.05	0.18	0.09	0.09	0.18	0.18	0.05	0.18	0.09	0.0	0.0	0.0	1.11	3.9
ESE	0.0	0.0	0.0	0.0	0.14	0.05	0.18	0.0	0.09	0.05	0.37	0.14	0.0	0.0	0.0	1.02	4.4
SE	0.0	0.0	0.0	0.05	0.14	0.18	0.14	0.0	0.14	0.05	0.05	0.09	0.0	0.0	0.0	0.83	3.5
SSE	0.0	0.0	0.0	0.14	0.05	0.09	0.18	0.28	0.51	0.32	0.18	0.05	0.05	0.05	0.0	1.90	4.1
S	0.0	0.0	0.0	0.05	0.05	0.05	0.05	0.05	0.09	0.0	0.23	0.18	0.60	0.14	0.0	1.48	6.1
SSW	0.0	0.0	0.0	0.05	0.09	0.23	0.18	0.09	0.0	0.0	0.05	0.18	0.09	0.05	0.05	1.06	4.5
SW	0.0	0.05	0.0	0.0	0.0	0.0	0.14	0.05	0.05	0.14	0.32	0.18	0.0	0.0	0.0	0.93	4.9
WSW	0.0	0.05	0.0	0.09	0.05	0.0	0.09	0.18	0.0	0.05	0.09	0.0	0.0	0.0	0.0	0.60	3.4
W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.09	0.14	0.0	0.05	0.0	0.05	0.0	0.0	0.32	4.7
WNW	0.0	0.0	0.0	0.05	0.14	0.18	0.05	0.0	0.0	0.05	0.0	0.0	0.05	0.05	0.0	0.56	3.5
NW	0.0	0.05	0.0	0.05	0.05	0.05	0.05	0.0	0.09	0.05	0.05	0.18	0.05	0.0	0.0	0.65	4.4
NNW	0.0	0.05	0.18	0.09	0.14	0.05	0.05	0.05	0.18	0.05	0.18	0.05	0.09	0.09	0.05	1.30	4.0
N	0.0	0.0	0.0	0.14	0.28	0.14	0.56	0.18	0.18	0.09	0.23	0.18	0.09	0.0	0.0	2.08	3.8
TOTAL	0.0	0.23	0.42	1.07	1.67	1.48	2.36	1.67	2.08	1.20	2.27	1.43	1.16	0.37	0.09	17.51	4.1

NUMBER OF INVALID OBSERVATIONS= 0.

PERCENT OF VALID OBSERVATIONS= 17.5

TABLE 159 - E

DATA PERIOD 4/01/1980 THROUGH 6/30/1980 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

DTI00 = -0.4 TO +1.5 IN PERCENT DATA USED -- WD10 *WS10 *DTI00

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	0.05	0.14	0.23	0.69	0.83	0.74	1.11	1.02	0.69	0.93	0.14	0.14	0.05	0.0	6.76	3.7
NE	0.0	0.05	0.18	0.37	0.42	0.51	0.46	0.51	0.23	0.14	0.05	0.0	0.0	0.0	0.0	2.92	2.9
ENE	0.0	0.05	0.37	0.32	0.28	0.28	0.56	0.32	0.32	0.18	0.0	0.0	0.0	0.0	0.0	2.69	2.8
E	0.0	0.14	0.18	0.37	0.51	0.23	0.37	0.28	0.23	0.23	0.09	0.0	0.0	0.0	0.0	2.64	2.7
ESE	0.0	0.0	0.0	0.32	0.32	0.32	0.28	0.60	0.93	0.32	0.37	0.09	0.0	0.05	0.0	3.61	3.7
SE	0.0	0.05	0.14	0.42	0.28	0.60	0.46	0.46	0.60	0.42	0.23	0.0	0.0	0.0	0.0	3.66	3.3
SSE	0.0	0.05	0.05	0.14	0.32	0.46	0.32	0.42	0.42	0.46	0.56	0.23	0.09	0.14	0.0	3.66	4.1
S	0.0	0.09	0.0	0.0	0.14	0.18	0.51	0.14	0.37	0.37	0.56	0.46	0.18	0.09	0.0	3.10	4.6
SSW	0.0	0.05	0.14	0.09	0.09	0.09	0.09	0.14	0.42	0.18	0.23	0.56	0.46	0.37	0.05	2.96	5.5
SW	0.0	0.0	0.09	0.05	0.32	0.14	0.18	0.23	0.51	0.37	0.83	0.37	0.14	0.18	0.14	3.57	4.9
WSW	0.0	0.14	0.09	0.28	0.23	0.09	0.0	0.05	0.14	0.05	0.23	0.32	0.09	0.05	0.0	1.76	3.8
W	0.0	0.23	0.18	0.14	0.09	0.14	0.14	0.28	0.05	0.18	0.28	0.42	0.14	0.0	0.0	2.27	3.9
WNW	0.0	0.28	0.23	0.09	0.14	0.09	0.05	0.14	0.05	0.28	0.09	0.09	0.0	0.0	0.0	1.53	2.8
NW	0.05	0.09	0.42	0.60	0.37	0.05	0.09	0.05	0.0	0.05	0.05	0.05	0.0	0.0	0.0	1.85	2.0
NNW	0.0	0.18	0.32	0.23	0.88	0.51	0.56	0.18	0.09	0.14	0.05	0.51	0.32	0.28	0.23	4.49	4.0
N	0.05	0.05	0.32	0.37	0.83	0.28	0.69	0.65	0.42	0.56	0.51	0.18	0.46	0.37	0.18	5.93	4.1
TOTAL	0.09	1.48	2.87	4.03	5.93	4.82	5.51	5.56	5.79	4.63	5.05	3.43	2.04	1.57	0.60	53.40	3.8

NUMBER OF INVALID OBSERVATIONS= 0.

PERCENT OF VALID OBSERVATIONS= 53.4

TABLE 159 - F

DATA PERIOD 4/01/1980 THROUGH 6/30/1980 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	0.0	0.0	0.05	0.09	0.05	0.14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.05	0.37	3.3
NE	0.0	0.18	0.05	0.09	0.18	0.05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.56	1.5
ENE	0.0	0.0	0.18	0.09	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.28	1.3
E	0.0	0.05	0.18	0.0	0.14	0.05	0.0	0.0	0.0	0.0	0.05	0.0	0.0	0.0	0.0	0.46	2.0
ESE	0.0	0.14	0.32	0.42	0.14	0.0	0.05	0.09	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.16	1.7
SE	0.09	0.28	0.60	0.28	0.37	0.18	0.09	0.09	0.0	0.05	0.0	0.0	0.0	0.0	0.0	2.04	1.7
SSE	0.0	0.18	0.05	0.28	0.05	0.14	0.05	0.0	0.0	0.05	0.0	0.05	0.0	0.0	0.0	0.83	2.1
S	0.0	0.32	0.09	0.05	0.23	0.18	0.0	0.09	0.0	0.0	0.0	0.09	0.05	0.0	0.05	1.16	2.7
SSW	0.0	0.56	0.28	0.23	0.05	0.09	0.18	0.05	0.18	0.05	0.0	0.05	0.0	0.0	0.0	1.71	2.0
SW	0.0	0.23	0.23	0.05	0.0	0.14	0.0	0.28	0.32	0.05	0.09	0.05	0.0	0.05	0.0	1.48	3.1
WSW	0.0	0.32	0.23	0.0	0.05	0.0	0.05	0.09	0.05	0.09	0.0	0.14	0.05	0.05	0.0	1.11	2.9
W	0.0	0.0	0.28	0.14	0.05	0.05	0.0	0.05	0.0	0.0	0.14	0.0	0.0	0.0	0.0	0.69	2.4
WNW	0.0	0.23	0.32	0.09	0.0	0.0	0.05	0.0	0.05	0.0	0.0	0.0	0.0	0.0	0.0	0.74	1.4
NW	0.0	0.0	0.74	0.37	0.32	0.18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.62	1.6
NNW	0.0	0.05	0.23	1.39	0.74	0.23	0.18	0.05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.87	1.9
N	0.0	0.05	0.09	0.14	0.28	0.28	0.05	0.18	0.14	0.0	0.0	0.0	0.0	0.0	0.0	1.20	2.6
TOTAL	0.09	2.59	3.94	3.71	2.64	1.71	0.69	0.97	0.74	0.28	0.28	0.37	0.09	0.09	0.09	18.29	2.1

NUMBER OF INVALID OBSERVATIONS= 1.

PERCENT OF VALID OBSERVATIONS= 18.3

TABLE 159 - G

DATA PERIOD 4/01/1980 THROUGH 6/30/1980 RUN FROM TAPE SERIES TRI-EX

OMAHA PUBLIC POWER DISTRICT
FORT CALHOUN NUCLEAR STATION

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

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

SECTOR IS WIND DIRECTION NOT AFFECTED DIRECTION

SECTOR	0.0 TO 0.4	0.5 TO 0.9	1.0 TO 1.4	1.5 TO 1.9	2.0 TO 2.4	2.5 TO 2.9	3.0 TO 3.4	3.5 TO 3.9	4.0 TO 4.4	4.5 TO 4.9	5.0 TO 5.9	6.0 TO 6.9	7.0 TO 7.9	8.0 TO 8.9	9.0 TO INF	TOTAL	UBAR
NNE	0.0	0.0	0.09	0.0	0.05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.14	1.5
NE	0.0	0.0	0.09	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.09	1.1
ENE	0.0	0.0	0.05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.05	1.2
E	0.0	0.0	0.23	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.23	1.0
ESE	0.0	0.0	0.18	0.09	0.05	0.0	0.0	0.0	0.05	0.0	0.0	0.0	0.0	0.0	0.0	0.37	1.7
SE	0.0	0.23	0.23	0.18	0.14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.79	1.2
SSE	0.0	0.18	0.37	0.09	0.05	0.0	0.18	0.0	0.05	0.0	0.05	0.0	0.0	0.0	0.0	0.97	1.8
S	0.0	0.32	0.23	0.05	0.05	0.05	0.0	0.0	0.0	0.0	0.09	0.0	0.0	0.0	0.0	0.79	1.6
SSW	0.0	0.28	0.14	0.0	0.09	0.0	0.0	0.0	0.05	0.09	0.0	0.0	0.0	0.0	0.0	0.65	1.7
SW	0.0	0.28	0.14	0.0	0.0	0.05	0.05	0.09	0.05	0.05	0.09	0.05	0.0	0.0	0.0	0.83	2.6
WSW	0.0	0.23	0.09	0.0	0.09	0.0	0.05	0.09	0.05	0.0	0.05	0.05	0.0	0.0	0.0	0.69	2.4
W	0.0	0.14	0.23	0.0	0.0	0.0	0.0	0.0	0.05	0.0	0.0	0.0	0.0	0.0	0.0	0.42	1.2
WNW	0.0	0.0	0.32	0.14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.46	1.2
NW	0.0	0.14	0.51	0.28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.93	1.2
NNW	0.0	0.0	0.14	0.32	0.56	0.18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.20	2.0
N	0.0	0.0	0.0	0.0	0.0	0.05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.05	2.6
TOTAL	0.0	1.81	3.06	1.16	1.07	0.32	0.28	0.19	0.28	0.14	0.28	0.09	0.0	0.0	0.0	8.66	1.7

NUMBER OF INVALID OBSERVATIONS= 0.

PERCENT OF VALID OBSERVATIONS= 8.7

TABLE 159 - ALL

DATA PERIOD 4/01/1980 THROUGH 6/30/1980 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	0.0	0.09	0.37	0.42	0.88	1.11	1.16	1.30	1.20	0.83	1.11	0.18	0.23	0.05	0.05	8.99	3.7
NE	0.0	0.23	0.42	0.65	0.74	0.65	0.65	0.65	0.28	0.14	0.14	0.0	0.0	0.0	0.0	4.54	2.6
ENE	0.0	0.0	0.69	0.46	0.42	0.42	0.69	0.51	0.56	0.37	0.05	0.09	0.0	0.0	0.0	4.31	2.9
E	0.0	0.18	0.60	0.46	0.83	0.37	0.46	0.46	0.42	0.28	0.37	0.14	0.0	0.0	0.0	4.58	2.9
ESE	0.0	0.14	0.51	0.83	0.65	0.37	0.51	0.69	1.11	0.37	0.74	0.23	0.0	0.05	0.0	6.21	3.3
SE	0.09	0.56	0.97	0.93	0.93	0.97	0.69	0.56	0.79	0.51	0.28	0.09	0.0	0.0	0.0	7.36	2.7
SSE	0.0	0.42	0.46	0.65	0.46	0.69	0.79	0.69	0.97	0.83	1.02	0.37	0.14	0.18	0.0	7.69	3.6
S	0.0	0.74	0.32	0.14	0.46	0.46	0.60	0.32	0.46	0.42	0.88	0.74	0.83	0.23	0.05	6.67	4.2
SSW	0.0	0.88	0.56	0.37	0.32	0.42	0.51	0.42	0.74	0.37	0.32	0.79	0.56	0.42	0.09	6.76	4.0
SW	0.0	0.56	0.46	0.09	0.32	0.32	0.37	0.65	0.93	0.60	1.34	0.65	0.14	0.23	0.14	6.81	4.2
WSW	0.0	0.74	0.42	0.37	0.42	0.09	0.18	0.46	0.23	0.18	0.37	0.51	0.14	0.09	0.0	4.21	3.3
W	0.0	0.37	0.69	0.28	0.14	0.18	0.14	0.42	0.23	0.18	0.46	0.42	0.18	0.0	0.0	3.70	3.4
WNW	0.0	0.51	0.88	0.37	0.28	0.28	0.14	0.14	0.14	0.32	0.09	0.09	0.05	0.05	0.0	3.33	2.4
NW	0.05	0.28	1.67	1.30	0.74	0.28	0.18	0.28	0.09	0.09	0.09	0.23	0.05	0.0	0.0	5.33	2.1
NNW	0.0	0.28	0.88	2.08	2.32	0.97	0.79	0.28	0.32	0.18	0.23	0.56	0.42	0.37	0.28	9.96	3.2
N	0.05	0.09	0.42	0.65	1.39	0.79	1.44	1.11	0.74	0.65	0.74	0.37	0.56	0.37	0.18	9.54	3.8
TOTAL	0.18	6.11	10.33	10.05	11.30	8.38	9.31	8.94	9.22	6.34	8.24	5.47	3.25	2.04	0.79	100.00	3.4

NUMBER OF INVALID OBSERVATIONS= 25.

PERCENT OF VALID OBSERVATIONS= 98.9

RELEASE NUMBER 80001 CONTAINMENT PURGE

STARTING TIME JAN 3,1980 HOUR 20 MINUTE 15

TIME HOUR	WS10 MPH	WD10 DEG	DT100 DEG C
20	6.2	144.4	-0.2
21	6.3	158.3	0.1
22	4.9	172.8	-0.2
23	6.6	173.2	0.0
24	7.1	187.2	-0.3
1	6.6	190.1	0.1
2	7.0	197.9	-0.1
3	6.3	201.7	-0.1
4	6.3	185.2	-0.5
5	7.4	188.4	-0.2
6	9.1	195.8	-0.2
7	10.8	192.6	0.0
8	10.4	185.6	-0.4
9	10.5	191.6	-0.3
10	11.1	199.8	-0.0
11	11.9	210.2	-0.4
12	11.8	209.0	-0.4
13	13.7	228.2	-0.4
14	14.1	233.8	-0.3
15	12.6	239.6	-0.3
16	11.1	237.4	-0.4
17	8.8	237.9	-0.1
18	9.6	240.0	-0.1
19	10.6	243.6	-0.1
20	7.7	256.6	0.1
21	4.2	296.2	-0.1
22	5.0	312.8	0.1
23	5.3	316.5	-0.1
24	3.3	296.4	1.2
1	8.6	302.8	0.2
2	8.9	309.2	0.2
3	4.6	330.6	0.1
4	5.7	316.9	0.3
5	6.4	302.6	0.2
6	6.5	304.7	0.3
7	3.5	301.4	0.4
8	4.5	298.1	0.7
9	4.7	288.1	0.3
10	7.3	313.0	-0.5
11	6.8	324.1	-0.6
12	4.9	314.7	-0.8
13	3.4	329.2	-0.8
14	3.9	233.8	-0.8
15	6.3	142.4	-0.7
16	8.6	189.9	-0.6
17	9.8	196.3	-0.3
18	-99.0	-99.0	-99.0
19	-99.0	-99.0	-99.0
20	11.4	156.9	-0.5

21	-99.0	-99.0	-99.0
22	-99.0	-99.0	-99.0
23	-99.0	-99.0	-99.0
24	-99.0	-99.0	-99.0
1	-99.0	-99.0	-99.0
2	-99.0	-99.0	-99.0
3	13.3	163.7	-0.1
4	13.5	181.5	-0.4
5	15.3	178.3	-0.2
6	18.3	180.A	-0.1
7	11.A	200.3	-0.2
A	10.0	207.3	-0.2
9	A.A	213.5	-0.1
10	10.1	215.2	-0.1
11	3.5	291.A	0.1
12	-99.0	313.4	-0.3

STOP TIME JAN 6,1940 HOUR 11 MINUTE 40

RELEASE NUMBER 80002 CONTAINMENT PURGE

STARTING TIME JAN 10,1980 HOUR 18 MINUTE 3

TIME HOUR	WS10 MPH	WD10 DEG	DT100 DEG C
18	21.2	207.1	0.2
19	21.3	199.1	0.1
20	21.6	203.1	0.1
21	20.5	205.7	0.1
22	19.8	216.1	0.1
23	21.2	221.8	0.2
24	22.5	285.8	0.4
1	25.0	315.1	-0.5
2	25.1	312.4	-0.5
3	22.1	312.3	-0.5
4	20.2	316.8	-0.3
5	18.2	314.9	-0.2
6	17.9	309.8	-0.3
7	13.9	300.8	-0.2
8	11.4	303.2	-0.2
9	13.7	310.8	-0.3
10	16.1	310.5	-0.6
11	17.9	308.8	-0.6
12	17.9	305.1	-0.8
13	17.1	304.3	-0.8
14	17.1	302.2	-0.7
15	14.9	301.5	-0.8
16	15.2	300.7	-0.6
17	13.2	295.4	-0.6
18	9.7	299.2	-0.3
19	5.3	309.3	-0.1
20	5.6	308.3	-0.1
21	4.1	310.2	0.9
22	2.7	285.3	1.0
23	3.1	305.2	1.0
24	2.5	195.7	0.5
1	2.3	113.4	0.7
2	2.8	141.3	0.8
3	4.4	136.2	0.3
4	4.9	156.8	0.5
5	5.5	137.1	0.9
6	7.2	137.7	0.7
7	13.2	148.8	-0.1
8	13.6	147.6	0.2
9	13.4	144.3	0.3
10	15.6	152.6	-0.1
11	29.1	164.6	-0.3
12	29.7	169.7	-0.4
13	21.3	179.2	-0.4
14	22.9	189.4	-0.3
15	24.3	189.3	-0.4
16	25.6	180.4	-0.3
17	29.1	190.4	0.1
18	19.9	179.5	-0.1

19	18.3	175.6	0.1
20	18.6	176.0	-0.1
21	21.2	176.8	-0.1
22	24.6	182.2	-0.2
23	24.3	188.3	0.3
24	23.4	190.3	-0.1
1	25.5	191.4	0.1
2	26.2	194.7	-0.1
3	28.7	195.4	-0.4
4	24.7	204.5	-0.3
5	22.7	203.9	0.1
6	23.6	210.4	-0.2
7	24.5	208.3	-0.1
8	17.7	203.1	-0.1
9	10.6	196.5	0.1
10	13.3	200.1	-0.3
11	12.1	215.7	-0.6
12	7.5	241.9	-0.7
13	7.1	246.0	-0.6
14	3.6	286.0	-0.7
15	3.1	6.6	-0.8
16	4.4	340.0	-0.6
17	4.1	357.9	0.3
18	6.0	330.2	1.5
19	5.2	299.0	4.3
20	2.9	268.7	3.4
21	1.2	210.2	3.0
22	1.7	269.9	4.4
23	0.8	273.1	6.6
24	1.1	226.1	7.1
1	1.6	274.8	4.6
2	1.5	179.0	4.7
3	1.6	130.7	4.6
4	1.0	208.7	4.9
5	1.5	128.4	3.0
6	1.7	158.1	2.9
7	2.8	124.1	1.9
8	2.1	303.4	2.3
9	4.6	112.9	1.9
10	9.0	124.4	-0.6
11	13.4	124.0	-0.4
12	14.6	130.2	-0.5
13	13.7	243.4	-0.5
14	13.4	155.1	-0.5
15	15.8	146.2	-0.4
16	13.8	154.3	-0.3
17	12.2	151.1	-0.9
18	11.4	143.4	0.7

STOP TIME JAN 14,1980 HOUR 17 MINUTE 45

RELEASE NUMBER 80003 CONTAINMENT PURGE

STARTING TIME JAN 17,1980 HOUR 17 MINUTE 39

TIME HOUR	WS10 MPH	WD10 DEG	DT100 DEG C
17	4.6	108.7	-0.1
18	2.4	143.2	0.6
19	1.7	303.0	1.3
20	2.2	143.5	1.1
21	4.0	150.8	1.6
22	4.0	133.9	2.2
23	2.7	104.1	1.7
24	4.7	114.0	2.7
1	6.0	144.5	2.0
2	5.0	132.0	1.6
3	5.7	143.4	2.2
4	4.5	113.2	1.7
5	4.9	114.4	1.6
6	5.3	117.8	1.0
7	6.0	125.1	1.3
8	6.1	129.2	0.1
9	5.4	132.4	0.5
10	4.9	129.8	0.4
11	5.1	127.4	0.3
12	4.4	155.8	-0.3
13	6.5	185.6	-0.1
14	8.1	203.9	-0.6
15	6.2	199.1	-0.2
16	5.1	190.5	-0.1
17	2.2	211.2	1.4
18	2.4	285.9	1.3
19	2.4	282.5	2.3
20	2.5	303.1	1.6
21	6.2	324.3	-0.1
22	5.8	326.6	-0.1
23	6.6	329.5	-0.4
24	7.4	335.4	-0.3
1	7.8	338.9	-0.3
2	7.1	344.8	-0.3
3	7.5	346.7	-0.3
4	8.6	351.7	-0.2
5	8.7	351.7	-0.4
6	8.2	358.3	-0.3
7	8.3	7.6	-0.2
8	8.4	3.6	-0.2
9	8.4	5.5	-0.2
10	8.2	13.2	-0.3
11	8.2	9.3	-0.6
12	7.6	358.5	-0.6
13	8.6	352.3	-0.6
14	8.8	355.7	-0.6
15	8.3	358.7	-0.6
16	7.3	4.8	-0.5
17	5.6	14.8	-0.4

18	4.8	15.6	-0.1
19	3.4	20.9	0.1
20	3.0	14.9	0.4
21	3.3	14.1	0.6
22	2.8	306.8	0.3
23	3.5	346.4	0.5
24	4.1	323.5	0.5
1	4.0	311.3	0.4
2	3.6	305.3	0.1
3	3.2	337.6	0.2
4	3.2	317.5	0.1
5	2.8	330.1	-0.2
6	3.6	349.7	-0.2

STOP TIME JAN 20.1980 HOUR 5 MINUTE 8

RELEASE NUMBER 80004 CONTAINMENT PURGE

STARTING TIME JAN 20,1980 HOUR 6 MINUTE 15

TIME HOUR	WS10 MPH	WD10 DEG	DT100 DEG C
6	3.6	349.7	-0.2
7	2.8	340.1	0.2
8	1.8	288.4	0.4
9	2.2	276.4	0.3
10	2.4	299.2	-0.2
11	2.8	313.4	-0.5
12	4.3	353.0	-0.6
13	2.9	331.8	-0.4
14	1.8	295.1	-0.5
15	3.7	243.9	-0.3
16	4.2	234.4	-0.3
17	3.6	241.8	-0.3
18	2.9	229.9	-0.2
19	2.6	266.3	-0.2
20	5.6	243.6	-0.2
21	4.2	244.8	-0.1
22	5.7	227.2	0.1

STOP TIME JAN 20,1980 HOUR 21 MINUTE 34

RELEASE NUMBER 80005 CONTAINMENT PURGE

STARTING TIME JAN 20,1980 HOUR 21 MINUTE 34

TIME HOUR	WS10 MPH	WD10 DEG	DT100 DEG C
21	4.2	244.8	-0.1
22	5.7	227.2	0.1
23	6.9	253.6	0.2
24	5.1	224.7	-0.1
1	4.7	296.4	-0.2
2	5.0	246.1	-0.3
3	7.7	268.0	-0.3

STOP TIME JAN 21,1980 HOUR 2 MINUTE 20

STARTING TIME JAN 21,1980 HOUR 5 MINUTE 30

TIME HOUR	WS10 MPH	WD10 DEG	DT100 DEG C
5	11.4	232.5	-0.3
6	10.3	244.3	-0.2
7	7.5	248.0	0.1
8	9.8	230.3	0.2
9	11.3	211.7	0.2
10	10.5	245.6	-0.3
11	13.5	247.7	-0.4
12	10.5	257.1	-0.4
13	10.3	287.9	-0.5
14	7.9	299.4	-0.6
15	7.6	320.7	-0.6
16	7.8	307.6	-0.4
17	5.4	256.4	-0.1
18	10.3	320.1	1.0
19	9.7	300.0	3.0

STOP TIME JAN 21,1980 HOUR 18 MINUTE 16

RELEASE NUMBER 80006 CONTAINMENT PURGE

STARTING TIME JAN 21,1980 HOUR 18 MINUTE 21

TIME HOUR	WS10 MPH	WD10 DEG	DT100 DEG C
18	10.3	320.1	1.0
19	9.7	300.0	3.0
20	10.1	62.2	1.1
21	5.7	352.3	1.3
22	8.0	298.6	1.3
23	9.6	301.4	0.7
24	7.7	343.3	0.6
1	10.5	24.5	0.9
2	13.3	326.9	0.1
3	19.6	324.9	-0.1
4	19.2	333.0	-0.1
5	15.2	350.8	-0.1
6	13.4	339.1	-0.1
7	-99.0	-99.0	-99.0
8	21.5	342.7	-0.2
9	17.5	328.8	-0.2
10	15.0	334.8	-0.3
11	16.9	328.7	-0.6
12	14.5	330.7	-0.7
13	14.3	326.9	-0.7
14	13.7	335.8	-0.8
15	11.9	340.4	-0.7
16	12.9	331.1	-0.7
17	12.7	327.8	-0.5
18	8.9	318.2	-0.1
19	4.8	303.3	0.5
20	3.9	283.5	0.7

STOP TIME JAN 22,1980 HOUR 19 MINUTE 14

STARTING TIME JAN 22,1980 HOUR 19 MINUTE 23

TIME HOUR	WS10 MPH	WD10 DEG	DT100 DEG C
19	4.8	303.3	0.5
20	3.9	283.5	0.7
21	3.7	289.4	1.2
22	1.8	321.4	1.6
23	2.8	325.7	1.6
24	-99.0	-99.0	-99.0
1	3.4	285.1	2.2

STOP TIME JAN 23,1980 HOUR 0 MINUTE 51

RELEASE NUMBER 80007 CONTAINMENT PURGE

STARTING TIME JAN 23,1980 HOUR 20 MINUTE 55

TIME HOUR	WS10 MPH	WD10 DEG	DT100 DEG C
20	14.4	212.7	1.0
21	17.2	241.0	1.8
22	19.4	250.1	2.3
23	20.0	243.6	3.3
24	18.8	254.0	2.1
1	16.0	276.1	1.2
2	14.5	272.0	1.6
3	13.2	271.2	1.0

STOP TIME JAN 24,1980 HOUR 2 MINUTE 29

STARTING TIME JAN 24,1980 HOUR 5 MINUTE 35

TIME HOUR	WS10 MPH	WD10 DEG	DT100 DEG C
5	16.0	267.6	2.0
6	12.5	262.0	2.3
7	13.3	253.1	3.1
8	13.5	256.7	2.9
9	12.7	272.6	1.3
10	10.1	265.6	1.6

STOP TIME JAN 24,1980 HOUR 9 MINUTE 55

STARTING TIME JAN 24,1980 HOUR 11 MINUTE 7

TIME HOUR	WS10 MPH	WD10 DEG	DT100 DEG C
11	7.6	278.1	1.0
12	6.8	280.1	0.5
13	9.2	262.7	0.7
14	9.5	255.9	0.1
15	6.6	263.4	-0.3
16	3.7	276.2	0.6
17	3.8	313.7	1.2
18	5.0	293.9	1.3
19	6.9	297.5	1.2
20	6.9	298.4	1.6

STOP TIME JAN 24,1980 HOUR 19 MINUTE 20

RELEASE NUMBER 80008 CONTAINMENT PURGE

STARTING TIME JAN 24,1980 HOUR 19 MINUTE 50

TIME HOUR	WS10 MPH	WD10 DEG	DT100 DEG C
19	6.9	297.5	1.2
20	6.9	298.4	1.6
21	7.0	292.4	1.2
22	6.5	292.4	0.8
23	5.7	300.6	1.0
24	7.2	295.9	1.2
1	7.3	292.8	1.0
2	7.6	293.5	0.7
3	7.8	285.5	0.5
4	8.5	284.6	0.5
5	9.0	294.7	0.8
6	9.9	304.1	0.8
7	10.1	311.4	0.6
8	8.9	320.9	0.4
9	9.6	336.1	0.1
10	11.9	345.0	-0.4
11	8.6	345.7	-0.6
12	8.3	347.7	-0.8
13	-99.0	-99.0	-99.0

STOP TIME JAN 25,1980 HOUR 12 MINUTE 22

RELEASE NUMBER A0009 CONTAINMENT PURGE

STARTING TIME JAN 25,1980 HOUR 20 MINUTE 10

TIME HOUR	WS10 MPH	WD10 DEG	DT100 DEG C
20	9.5	358.0	-0.5
21	10.5	359.6	-0.6
22	10.5	355.4	-0.7
23	10.4	357.3	-0.7
24	-99.0	-99.0	-99.0
1	-99.0	-99.0	-99.0
2	9.7	352.8	-0.6
3	8.7	351.4	-0.5
4	9.0	357.9	-0.6
5	9.1	352.8	-0.6
6	8.6	354.2	-0.6
7	9.1	356.4	-0.4

STOP TIME JAN 26,1980 HOUR 6 MINUTE 47

RELEASE NUMBER R0010 CONTAINMENT PURGE

STARTING TIME JAN 26,1980 HOUR 8 MINUTE 55

TIME HOUR	WS10 MPH	WD10 DEG	DT10 DEG C
8	9.1	357.5	-0.7
9	8.6	2.7	-0.7
10	8.6	354.3	-0.7
11	8.4	356.2	-0.8
12	-99.0	-99.0	-0.7
13	7.7	354.2	-0.9
14	7.9	350.9	-0.9
15	7.7	348.1	-0.8
16	8.2	352.8	-0.7
17	7.9	4.3	-0.7
18	7.2	13.0	-0.4
19	6.5	11.5	-0.4
20	3.9	12.1	-0.2
21	6.8	356.0	-0.5
22	7.4	358.5	-0.5
23	7.6	350.7	-0.5
24	-99.0	342.4	-99.0
1	8.0	336.1	-0.4
2	7.8	345.2	-0.4
3	7.7	336.6	-0.4
4	6.6	336.1	-0.2
5	6.3	333.1	-0.1
6	4.3	329.3	0.4
7	2.9	312.7	0.5

STOP TIME JAN 27,1980 HOUR 6 MINUTE 45

STARTING TIME JAN 27,1980 HOUR 8 MINUTE 5

TIME HOUR	WS10 MPH	WD10 DEG	DT100 DEG C
8	4.1	323.6	0.4
9	4.9	327.8	0.1
10	5.6	343.7	-0.6
11	6.6	332.7	-0.6

STOP TIME JAN 27,1980 HOUR 10 MINUTE 37

STARTING TIME JAN 27,1980 HOUR 13 MINUTE 12

TIME HOUR	WS10 MPH	WD10 DEG	DT100 DEG C
13	7.0	335.2	-0.7
14	8.1	330.9	-0.7
15	6.6	328.5	-0.7
16	7.0	323.7	-0.6
17	6.7	336.1	-0.5

STOP TIME JAN 27,1980 HOUR 16 MINUTE 45

STARTING TIME JAN 27,1980 HOUR 16 MINUTE 45

TIME HOUR	WS10 MPH	WD10 DEG	DT100 DEG C
16	7.0	323.7	-0.6
17	6.7	336.1	-0.5
18	5.2	328.7	-0.3
19	4.6	321.8	-0.3
20	4.6	321.7	-0.6
21	6.6	315.7	-0.6
22	6.8	328.8	-0.4
23	7.1	339.1	-0.4
24	6.5	332.7	-0.3
1	5.5	344.9	-0.4
2	3.9	327.5	-0.3
3	2.2	310.8	0.4
4	3.0	310.5	0.4
5	-99.0	-99.0	-99.0
6	-99.0	-99.0	-99.0
7	-99.0	-99.0	-99.0
8	-99.0	-99.0	-99.0
9	-99.0	-99.0	-99.0
10	-99.0	-99.0	-99.0
11	-99.0	-99.0	-99.0
12	-99.0	-99.0	-99.0
13	-99.0	-99.0	-99.0
14	-99.0	-99.0	-99.0
15	-99.0	-99.0	-99.0
16	-99.0	-99.0	-99.0
17	-99.0	-99.0	-99.0
18	-99.0	-99.0	-99.0
19	-99.0	-99.0	-99.0
20	-99.0	-99.0	-99.0
21	-99.0	-99.0	-99.0
22	-99.0	-99.0	-99.0
23	-99.0	-99.0	-99.0
24	-99.0	-99.0	-99.0
1	5.3	343.5	-0.1

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2        6.1      341.0        -0.3
         STOP TIME     JAN  29,1980     HOUR  1 MINUTE .5
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RELEASE NUMBER A0011 CONTAINMENT PURGE

STARTING TIME FEB 1,1980 HOUR 14 MINUTE 29

TIME HOUR	WS10 MPH	WD10 DEG	DT100 DEG C
14	12.3	172.4	-0.4
15	12.8	143.0	-0.0
16	13.0	138.7	0.0
17	14.2	140.5	-0.2
18	12.8	144.4	-0.2
19	12.0	147.9	-0.1
20	10.0	153.0	-0.3
21	10.5	155.1	-0.2
22	10.1	-99.0	-0.1
23	10.5	-99.0	-0.1
24	11.0	-99.0	-0.2
1	-99.0	-99.0	-99.0
2	-99.0	-99.0	-99.0
3	-99.0	-99.0	-99.0
4	-99.0	-99.0	-99.0
5	-99.0	-99.0	-99.0
6	-99.0	-99.0	-99.0
7	10.1	-99.0	-0.1
8	9.3	-99.0	-0.6
9	8.8	-99.0	-0.4
10	7.2	-99.0	-0.5
11	5.6	-99.0	-0.4
12	5.0	-99.0	-0.5
13	4.8	-99.0	-0.8
14	5.2	-99.0	-0.9
15	4.9	-99.0	-0.8
16	5.3	-99.0	-0.7

STOP TIME FEB 2,1980 HOUR 15 MINUTE 20

STARTING TIME FEB 2,1980 HOUR 16 MINUTE 0

TIME HOUR	WS10 MPH	WD10 DEG	DT100 DEG C
16	5.3	-99.0	-0.7
17	4.4	-99.0	-0.6
18	4.3	-99.0	-0.2
19	4.2	-99.0	-0.4
20	3.7	-99.0	-0.4
21	3.0	-99.0	0.1
22	-99.0	-99.0	-99.0
23	-99.0	-99.0	-99.0
24	-99.0	-99.0	-99.0
1	2.6	-99.0	2.0
2	3.3	-99.0	2.3
3	3.5	-99.0	2.2

4	2.9	-99.0	2.2
5	2.4	-99.0	1.1
6	2.4	-99.0	-0.1
7	3.5	-99.0	0.2
8	2.4	-99.0	0.2
9	2.6	-99.0	-0.2
10	1.5	-99.0	-0.6
11	4.2	-99.0	-0.8
12	5.8	-99.0	-0.7
13	7.6	-99.0	-0.5
14	6.2	-99.0	-0.5
15	6.6	-99.0	-0.5
16	6.4	-99.0	-0.4
17	7.8	-99.0	-0.3
18	-99.0	-99.0	-99.0
19	6.6	-99.0	-0.1
20	5.3	-99.0	0.2
21	6.6	-99.0	-0.1

STOP TIME FEB 3,1980 HOUR 20 MINUTE 27

STARTING TIME FEB 3,1980 HOUR 20 MINUTE 28

TIME HOUR	WS10 MPH	WD10 DEG	DT100 DEG C
20	5.3	-99.0	0.2
21	6.6	-99.0	-0.1
22	8.6	-99.0	-0.2
23	10.4	-99.0	-0.3
24	9.3	-99.0	-0.1
1	9.1	-99.0	-0.4
2	9.5	-99.0	-0.5
3	10.5	-99.0	-0.3
4	10.5	-99.0	-0.3

STOP TIME FEB 4,1980 HOUR 3 MINUTE 34

STARTING TIME FEB 4,1980 HOUR 4 MINUTE 0

TIME HOUR	WS10 MPH	WD10 DEG	DT100 DEG C
4	10.5	-99.0	-0.3
5	11.1	-99.0	-0.4

STOP TIME FEB 4,1980 HOUR 4 MINUTE 58

STARTING TIME FEB 4,1980 HOUR 5 MINUTE 47

TIME HOUR	WS10 MPH	WD10 DEG	DT100 DEG C
5	11.1	-99.0	-0.4
6	9.5	-99.0	-0.2
7	10.7	-99.0	-0.3
8	10.5	-99.0	-0.2
9	10.0	-99.0	-0.3
10	10.0	-99.0	-0.3
11	11.1	-99.0	-0.3
12	13.3	-99.0	-0.3
13	12.1	-99.0	-0.3
14	11.8	-99.0	-0.2
15	11.6	-99.0	-0.3
16	12.8	-99.0	-0.3
17	13.4	-99.0	-0.3
18	12.8	-99.0	-0.1
19	11.2	-99.0	0.1

STOP TIME FEB 4,1980 HOUR 19 MINUTE 20

STARTING TIME FEB 4,1980 HOUR 19 MINUTE 8

TIME HOUR	WS10 MPH	WD10 DEG	DT100 DEG C
19	11.2	-99.0	0.1
20	11.4	-99.0	0.1
21	10.8	-99.0	0.2
22	13.6	-99.0	0.1
23	13.5	-99.0	-0.1
24	11.3	-99.0	0.2
1	15.1	-99.0	0.7
2	15.6	-99.0	2.7
3	9.1	-99.0	1.1
4	13.1	-99.0	0.1
5	14.3	-99.0	-0.2

STOP TIME FEB 5,1980 HOUR 4 MINUTE 23

RELEASE NUMBER 80012 CONTAINMENT PURGE

STARTING TIME FEB 6,1980 HOUR 6 MINUTE 5

TIME HOUR	WS10 MPH	WD10 DEG	DT100 DEG C
6	5.8	-99.0	-0.5
7	5.9	-99.0	-0.4
8	5.7	-99.0	-0.4
9	4.4	-99.0	-0.5
10	-99.0	-99.0	-99.0
11	-99.0	-99.0	-99.0
12	-99.0	-99.0	-99.0
13	2.9	-99.0	-0.7
14	3.3	-99.0	-0.9
15	3.1	-99.0	-0.8
16	3.1	-99.0	-1.0
17	3.1	-99.0	-0.6
18	2.1	-99.0	-0.1
19	1.7	-99.0	1.2
20	0.7	-99.0	2.3
21	1.5	-99.0	3.0
22	1.3	-99.0	2.6
23	1.4	-99.0	2.3
24	0.7	-99.0	3.2

STOP TIME FEB 6,1980 HOUR 23 MINUTE 52

STARTING TIME FEB 7,1980 HOUR 0 MINUTE 15

TIME HOUR	WS10 MPH	WD10 DEG	DT100 DEG C
1	1.2	-99.0	3.4
2	1.8	-99.0	4.1
3	0.9	-99.0	3.7
4	0.9	-99.0	1.1
5	1.6	-99.0	-0.2
6	1.0	-99.0	-0.1
7	1.1	-99.0	-0.1

STOP TIME FEB 7,1980 HOUR 6 MINUTE 10

RELEASE NUMBER 80013 CONTAINMENT PURGE

STARTING TIME FEB 9,1980 HOUR 3 MINUTE 13

TIME HOUR	WS10 MPH	WD10 DEG	DT100 DEG C
3	-99.0	-99.0	-99.0
4	-99.0	-99.0	-99.0
5	-99.0	-99.0	-99.0
6	-99.0	-99.0	-99.0
7	-99.0	-99.0	-99.0
8	-99.0	-99.0	-99.0
9	-99.0	-99.0	-99.0
10	-99.0	-99.0	-99.0
11	-99.0	-99.0	-99.0
12	-99.0	-99.0	-99.0
13	-99.0	-99.0	-99.0
14	-99.0	-99.0	-99.0
15	-99.0	-99.0	-99.0
16	-99.0	-99.0	-99.0
17	-99.0	-99.0	-99.0
18	-99.0	-99.0	-99.0
19	-99.0	-99.0	-99.0
20	-99.0	-99.0	-99.0
21	-99.0	-99.0	-99.0
22	-99.0	-99.0	-99.0
23	-99.0	-99.0	-99.0
24	-99.0	-99.0	-99.0
1	7.2	213.8	-0.1
2	5.7	224.2	-0.9
3	3.7	233.5	0.4
4	3.7	262.2	0.9
5	2.6	285.2	2.6
6	1.5	263.7	3.8
7	1.5	245.6	4.5
8	3.1	285.9	4.0
9	5.3	307.4	2.8
10	5.8	272.7	1.5
11	7.7	277.3	0.7
12	8.1	273.5	-0.3
13	8.7	267.9	-0.4

STOP TIME FEB 10,1980 HOUR 12 MINUTE 44

STARTING TIME FEB 10,1980 HOUR 12 MINUTE 50

TIME HOUR	WS10 MPH	WD10 DEG	DT100 DEG C
12	8.1	273.5	-0.3
13	8.7	267.9	-0.4
14	9.5	263.1	-0.4
15	10.0	259.6	-0.3
16	7.8	264.9	-0.2
17	8.3	250.4	-0.1
18	10.0	235.9	0.4
19	12.9	241.9	0.4
20	12.1	243.0	1.3
21	6.6	282.6	1.7
22	5.6	294.5	2.5
23	6.9	328.7	1.0
24	3.0	295.2	1.2
1	3.2	303.9	1.5
2	5.4	296.2	0.9
3	7.9	290.4	0.4
4	8.9	287.1	0.6
5	13.6	311.9	0.1
6	11.9	315.9	0.2
7	11.0	319.7	0.5
8	10.4	315.8	0.4
9	10.3	320.4	0.1
10	12.0	318.4	-0.3
11	12.0	327.4	-0.6
12	12.4	320.6	-0.6
13	11.5	320.8	-0.7
14	11.5	310.2	-0.5
15	12.0	311.3	-0.4
16	10.5	311.7	-0.4
17	11.0	321.7	-0.3
18	7.5	320.4	0.2

STOP TIME FEB 11,1980 HOUR 17 MINUTE 45

RELEASE NUMBER 80014 CONTAINMENT PURGE

STARTING TIME JUNE 11,1980 HOUR 16 MINUTE 49

TIME HOUR	WS10 MPH	WD10 DEG	DT100 DEG C
16	13.9	163.0	-1.7
17	13.1	159.0	-1.6
18	14.2	160.6	-1.3
19	11.1	163.1	-1.0
20	8.8	162.5	-0.6
21	8.0	161.5	-0.1
22	8.5	159.6	0.2
23	10.7	157.0	0.1
24	12.6	158.1	-0.3
1	14.0	160.1	-0.4
2	13.2	163.6	-0.4
3	12.0	161.3	-0.4
4	11.0	155.3	-0.1
5	11.2	162.7	-0.4
6	10.4	163.7	-0.3
7	11.2	165.5	-0.4
8	12.7	171.1	-0.6
9	13.3	177.9	-0.6
10	14.1	169.4	-0.8
11	14.9	188.2	-1.0

STOP TIME JUNE 12,1980 HOUR 10 MINUTE 51

STARTING TIME JUNE 12,1980 HOUR 12 MINUTE 38

TIME HOUR	WS10 MPH	WD10 DEG	DT100 DEG C
12	11.9	187.4	-1.0
13	12.7	178.4	-1.3
14	12.0	180.4	-0.9
15	11.1	158.8	-0.5
16	8.9	237.0	-0.1
17	12.1	202.4	0.7
18	10.9	148.9	-0.1
19	10.2	144.7	-0.4
20	10.2	152.3	-0.5
21	9.6	147.5	-0.2
22	9.3	149.9	0.1
23	8.6	146.1	0.6
24	8.4	149.1	1.0
1	8.3	113.5	1.7
2	7.7	115.5	2.6
3	8.8	177.5	0.3
4	10.0	292.8	-0.1
5	10.4	275.3	-0.1
6	10.8	285.5	-0.1

7	12.8	352.0	-0.1
8	15.0	340.5	-0.3
9	15.3	359.4	-0.7
10	14.6	318.5	-1.0
11	11.0	233.8	-1.2
12	9.6	219.0	-1.3
13	8.7	179.0	-1.4
14	10.1	207.9	-1.5
15	9.8	276.1	-1.4
16	8.5	250.9	-1.3
17	5.1	174.3	-1.1
18	4.1	192.0	-0.9
19	1.9	46.0	0.2
20	1.8	335.7	0.9
21	1.5	283.8	2.1
22	3.1	301.8	1.4
23	2.0	237.6	0.1
^4	3.9	285.4	1.2
1	3.1	302.9	1.2
2	3.5	316.1	1.1
3	2.4	316.0	1.2
4	3.6	311.9	2.1
5	3.2	311.9	1.9
6	3.7	320.9	1.3
7	2.7	310.4	0.7
8	3.0	352.4	-0.3
9	3.9	13.0	-0.9
10	3.6	20.0	-1.0
11	4.5	52.6	-1.2
12	6.1	68.9	-1.3
13	6.6	60.1	-1.3
14	8.2	67.9	-1.4
15	9.1	85.9	-1.3
16	9.6	85.6	-0.9
17	8.2	75.1	-0.5
18	7.9	79.5	-0.4
19	8.7	79.7	-0.7
20	8.8	31.7	-0.6
21	7.4	43.6	-0.7
22	7.9	39.2	-0.6
23	9.3	43.6	-0.4
24	12.1	14.7	-0.2
1	9.2	23.6	0.2
2	6.8	29.4	0.3
3	5.4	285.2	-0.1
4	10.6	58.5	-0.2
5	9.0	132.3	-0.1
6	4.7	213.9	0.3
7	4.4	8.2	0.1
8	2.8	62.5	-0.1
9	4.7	350.4	-0.8
10	6.8	352.4	-0.9
11	8.9	2.0	-1.1
12	9.5	7.4	-1.1
13	8.4	21.7	-0.9

14	7.9	19.6	-1.1
15	7.3	39.1	-1.1
16	5.8	35.1	-1.1
17	5.3	39.4	-0.9
18	5.8	32.6	-1.0
19	5.5	50.9	-0.7
20	5.0	71.2	-0.6
21	4.5	86.1	-0.6
22	3.1	67.5	-0.2
23	2.3	53.9	-0.2
24	2.5	67.5	-0.3
1	1.7	337.1	0.3
2	1.9	66.4	0.6
3	2.2	73.9	0.5
4	2.1	354.0	0.6
5	1.2	299.3	0.7
6	1.2	294.5	1.0
7	1.3	325.0	0.8
8	1.3	15.1	0.1
9	3.3	175.3	-0.9

STOP TIME JUN[illegible].1980 HOUR 8 MINUTE 10

RELEASE NUMBER 80015 CONTAINMENT PURGE

STARTING TIME JUNE 10,1980 HOUR 14 MINUTE 12

TIME HOUR	WS10 MPH	WD10 DEG	DT100 DEG C
16	10.7	0.1	-0.3
17	10.6	96.1	-0.1
18	5.4	240.6	0.2
19	3.4	235.4	1.9
20	3.5	256.7	0.9
21	4.8	298.1	0.4
22	2.9	261.5	2.1
23	2.4	282.2	3.7
24	4.2	204.4	2.3
1	7.3	239.8	1.7
2	3.3	262.0	1.1
3	4.1	319.1	1.2
4	5.6	333.3	-0.3
5	7.4	351.2	-0.5
6	7.5	357.5	-0.6
7	8.4	359.4	-0.8
8	8.1	3.4	-1.0
9	7.5	16.0	-1.1
10	6.6	15.8	-1.1
11	6.9	24.8	-1.5
12	7.1	32.8	-1.6
13	6.6	38.6	-1.3
14	7.2	51.3	-1.4
15	8.0	52.0	-1.4
16	8.2	54.0	-1.4
17	7.2	63.0	-1.3
18	6.8	67.7	-0.9
19	5.7	73.7	-0.8
20	3.9	75.0	-0.5
21	2.3	334.4	0.9
22	1.6	183.6	3.1
23	2.7	132.1	2.9
24	2.1	192.6	3.1
1	1.2	297.4	3.2
2	0.9	214.1	3.2
3	3.3	137.3	2.0
4	4.3	131.9	1.8
5	2.4	145.8	2.5
6	1.4	124.9	1.7
7	1.9	185.1	-0.3
8	6.5	137.3	-1.0
9	8.5	270.3	-1.2
10	8.6	148.3	-1.2
11	10.1	24.0	-1.2
12	9.6	89.4	-1.3
13	8.0	208.3	-1.4
14	7.8	210.5	-1.4
15	6.8	157.1	-1.7
16	9.1	43.6	-1.6

17	8.8	342.4	-1.5
18	9.4	130.7	-1.5
19	9.0	136.1	-1.3
20	7.0	122.1	-1.1
21	6.0	130.1	-0.2
22	4.1	239.7	1.2
23	5.8	171.1	1.4
24	6.4	171.3	1.8
1	4.7	162.5	1.3
2	6.8	181.5	1.4
3	9.4	200.1	1.3
4	6.1	200.8	1.1
5	2.2	251.1	0.8
6	2.8	128.3	1.0
7	3.0	138.7	1.5
8	5.2	200.9	0.2
9	6.5	198.0	-1.1
10	7.6	203.9	-1.2
11	6.8	223.3	-1.3
12	5.5	206.7	-1.4
13	7.4	200.4	-1.6
14	8.6	202.2	-1.7
15	9.5	200.5	-1.6
16	9.3	191.5	-1.6
17	9.1	184.5	-1.4
18	9.2	182.3	-1.3
19	7.6	179.8	-0.8
20	6.6	166.2	-0.1
21	.4	162.2	1.0
22	5.9	167.9	1.6
23	5.2	179.9	1.6
24	5.2	200.3	2.5
1	6.0	193.0	2.8
2	6.3	182.5	2.0
3	5.4	182.7	1.6
4	5.2	218.0	1.1
5	6.5	173.1	1.4
6	8.1	147.5	0.5
7	6.8	130.8	0.7
8	7.5	234.1	-0.7
9	7.2	212.4	-0.9
10	5.6	212.2	-0.8
11	1.8	245.7	-0.7
12	2.1	345.6	-0.6
13	3.0	19.7	-0.7
14	1.8	318.8	-1.0
15	1.7	15.1	-1.0
16	2.1	344.4	-0.9
17	2.0	217.0	-0.6
18	2.5	348.2	-0.7
19	2.7	345.4	-0.9
20	3.9	342.1	-0.8
21	3.5	331.9	-0.4
22	1.7	314.0	0.3
23	1.7	273.5	0.5

24	1.4	301.7	0.4
1	-99.0	-99.0	-99.0
2	-99.0	-99.0	-99.0
3	-99.0	-99.0	-99.0
4	-99.0	-99.0	-99.0
5	-99.0	-99.0	-99.0
6	-99.0	-99.0	-99.0
7	-99.0	-99.0	-99.0

STOP TIME JUNE 23.1940 HOUR 6 MINUTE 24

RELEASE NUMBER 80016 CONTAINMENT PURGE

STARTING TIME JUNE 26,1980 HOUR 18 MINUTE 14

TIME HOUR	WS10 MPH	WD10 DEG	DT100 DEG C
18	8.2	154.3	-0.8
19	6.4	159.1	0.0
20	6.7	162.1	0.7
21	5.9	155.4	1.7
22	5.7	147.8	1.6
23	2.8	142.2	2.4
24	6.5	145.4	2.4
1	9.7	136.3	1.5
2	10.8	148.6	0.3
3	8.4	123.3	0.2
4	6.1	78.1	0.4
5	4.6	98.6	0.7
6	5.4	107.2	0.7
7	8.1	110.2	-0.2
8	13.2	103.7	-0.9
9	14.3	91.9	-1.1

STOP TIME JUNE 27,1980 HOUR 8 MINUTE 25

STARTING TIME JUNE 27,1980 HOUR 13 MINUTE 4

TIME HOUR	WS10 MPH	WD10 DEG	DT100 DEG C
13	10.2	179.1	-1.5
14	12.2	240.1	-1.4
15	11.5	264.7	-1.4
16	8.7	305.7	-1.5

STOP TIME JUNE 27,1980 HOUR 15 MINUTE 25

STARTING TIME JUNE 27,1980 HOUR 15 MINUTE 56

TIME HOUR	WS10 MPH	WD10 DEG	DT100 DEG C
15	11.5	264.7	-1.4
16	8.7	305.7	-1.5
17	7.3	351.5	-1.1
18	8.8	348.5	-0.7
19	9.6	351.4	0.0
20	4.4	336.2	1.4
21	3.3	316.6	3.5
22	7.3	343.6	1.4
23	8.9	353.7	-0.1
24	6.0	343.7	0.6
1	4.4	324.3	2.1
2	3.7	308.6	2.4
3	4.5	321.1	3.0
4	3.8	309.6	2.1
5	3.9	328.8	2.1
6	3.6	356.9	1.7
7	2.4	13.9	0.5
8	3.9	47.1	-0.7
9	3.1	52.5	-0.8
10	4.1	40.4	-0.8
11	4.7	49.5	-1.1
12	4.8	28.6	-1.1
13	4.9	28.1	-1.3
14	4.9	8.9	-1.1
15	4.0	2.4	-1.3
16	3.9	357.4	-1.2
17	3.0	25.3	-0.9
18	3.0	65.7	-0.6
19	2.9	208.8	1.1
20	1.9	205.8	3.6
21	2.1	219.5	4.6
22	2.4	262.1	4.9
23	7.6	238.7	4.1
24	5.1	343.0	4.3
1	2.5	277.0	4.6
2	3.2	303.2	4.8
3	4.2	321.2	5.1
4	4.9	320.9	2.4
5	3.8	327.5	2.7
6	3.5	326.5	2.9
7	4.3	329.2	0.6
8	6.8	7.0	-0.8
9	7.7	0.8	-1.1
10	7.3	357.4	-1.2
11	7.3	359.0	-1.2
12	9.2	351.3	-1.4
13	8.4	359.0	-1.5
14	7.4	355.1	-1.6
15	7.4	351.6	-1.6

16	7.1	357.0	-1.4
17	6.1	358.2	-1.1
18	5.5	1.9	-0.6
19	4.1	5.1	-0.1
20	2.2	64.0	0.5
21	1.9	183.3	2.6
22	1.8	301.2	4.0
23	1.4	179.3	4.5
24	1.0	267.8	5.1
1	1.1	126.9	4.6
2	3.0	126.6	4.5
3	3.2	122.5	3.0
4	4.1	133.0	2.1
5	4.9	132.0	1.7
6	5.8	145.8	1.6
7	5.7	148.2	-0.0
8	9.8	155.9	-0.9
9	10.6	152.5	-0.9

STOP TIME JUNE 30.1980 HOUR 8 MINUTE 0

RELEASE NUMBER 80001 DECAY TANK PURGE

STARTING TIME JAN 6,1980 HOUR 16 MINUTE 55

TIME HOUR	WS10 MPH	WD10 DEG	DT100 DEG C
16	-99.0	300.9	-0.5
17	-99.0	297.7	-0.4
18	-99.0	299.7	-0.2
19	12.1	293.5	-0.4

STOP TIME JAN 6,1980 HOUR 18 MINUTE 45

STARTING TIME JAN 6,1980 HOUR 18 MINUTE 45

TIME HOUR	WS10 MPH	WD10 DEG	DT100 DEG C
18	-99.0	299.7	-0.2
19	12.1	293.5	-0.4
20	20.0	295.5	-0.2
21	17.1	297.3	-0.3
22	-99.0	-99.0	-99.0
23	-99.0	-99.0	-99.0
24	-99.0	-99.0	-99.0
1	14.9	296.5	-0.3
2	11.9	301.2	-0.4

STOP TIME JAN 7,1980 HOUR 1 MINUTE 46

RELEASE NUMBER R0002 DECAY TANK PURGE

STARTING TIME JAN 8,1980 HOUR 20 MINUTE 57

TIME HOUR	WS10 MPH	WD10 DEG	DT100 DEG C
20	5.8	15.7	-0.8
21	5.5	359.7	-0.7
22	7.1	339.3	-0.3
23	7.5	331.9	-0.5
24	6.1	346.0	-0.5
1	5.9	343.9	-0.3
2	6.2	342.2	-0.2
3	6.7	343.2	-0.6
4	7.0	334.5	-0.1
5	6.3	355.9	-0.7
6	6.3	12.5	-0.3
7	4.5	358.2	0.1
8	3.5	23.5	-0.8
9	2.4	35.4	-0.7
10	3.4	30.0	-0.4

STOP TIME JAN 9,1980 HOUR 9 MINUTE 0

RELEASE NUMBER A0003 DECAY TANK PURGE

STARTING TIME JAN 10,1980 HOUR 1 MINUTE 30

TIME HOUR	WS10 MPH	WD10 DEG	DT100 DEG C
1	13.2	153.5	-0.1
2	11.8	147.4	0.2
3	13.6	145.6	0.1
4	14.4	149.3	0.1
5	14.8	147.6	0.1
6	15.2	151.1	-0.1
7	12.5	148.5	0.1
8	15.5	156.6	0.1
9	16.7	156.9	0.1
10	17.2	156.9	-0.1
11	19.3	159.4	-0.2

STOP TIME JAN 10,1980 HOUR 10 MINUTE 11

RELEASE NUMBER 80004 DECAY TANK PURGE

STARTING TIME JAN 14.1980 HOUR 18 MINUTE 30

TIME HOUR	WS10 MPH	WD10 DEG	DT100 DEG C
18	11.4	143.4	0.7
19	14.9	149.0	0.4
20	15.8	153.3	0.2
21	15.2	154.7	0.1
22	11.7	164.3	0.1
23	9.8	146.9	0.7
24	7.4	134.7	1.3
1	6.9	140.8	1.2
2	7.8	145.2	1.4
3	5.6	143.6	2.0
4	4.3	151.4	2.6

STOP TIME JAN 15.1980 HOUR 3 MINUTE 33

RELEASE NUMBER A0005 DECAY TANK PURGE

STARTING TIME JAN 31.1980 HOUR 0 MINUTE 50

TIME HOUR	WS10 MPH	WD10 DEG	DT100 DEG C
1	3.5	305.6	2.7

STOP TIME JAN 31.1980 HOUR 0 MINUTE 55

STARTING TIME JAN 31.1980 HOUR 5 MINUTE 6

TIME HOUR	WS10 MPH	WD10 DEG	DT100 DEG C
5	2.8	283.4	2.4
6	2.6	265.6	2.6
7	1.8	254.6	3.1
8	2.2	309.8	2.6
9	1.2	175.4	2.0
10	1.8	238.5	0.8
11	2.7	350.8	-0.5
12	2.4	9.1	-0.6
13	2.6	17.0	-1.3

STOP TIME JAN 31.1980 HOUR 12 MINUTE 25

STARTING TIME JAN 31.1980 HOUR 14 MINUTE 0

TIME HOUR	WS10 MPH	WD10 DEG	DT100 DEG C
14	2.8	11.9	-1.8
15	4.6	270.8	-0.6
16	4.3	250.2	-0.5
17	5.4	222.3	-0.3
18	3.4	197.5	0.1
19	4.2	159.9	1.0
20	3.1	148.8	2.5
21	2.9	150.1	3.1
22	3.3	171.5	2.5
23	2.9	136.3	2.3
24	2.9	115.5	1.2
1	2.8	128.6	1.9
2	4.8	144.0	1.9
3	5.9	137.5	1.7
4	4.4	121.3	1.5
5	3.7	133.7	2.4
6	4.5	139.9	2.3
7	4.1	156.4	3.1

STOP TIME FEB 1.1980 HOUR 6 MINUTE 2

RELEASE NUMBER 80006 DECAY TANK PURGE

STARTING TIME FEB 20,1980 HOUR 9 MINUTE 24

TIME HOUR	WS10 MPH	WD10 DEG	DT100 DEG C
9	8.2	-99.0	0.3
10	9.0	-99.0	0.3
11	9.3	-99.0	0.1
12	10.3	-99.0	0.1
13	9.2	-99.0	-0.1
14	10.6	-99.0	-0.1
15	9.3	-99.0	-0.1
16	9.4	-99.0	-0.1
17	9.2	-99.0	-0.1
18	8.1	-99.0	0.1
19	7.7	-99.0	0.3
20	8.5	-99.0	0.5
21	8.4	-99.0	0.6
22	8.7	-99.0	0.6
23	5.3	-99.0	0.6
24	4.7	-99.0	0.9
1	3.7	27.8	1.0
2	6.5	10.4	1.0
3	7.9	11.7	0.9
4	6.3	10.9	0.7
5	5.7	20.8	0.6
6	8.0	15.1	0.4
7	8.5	13.8	0.4
8	7.9	15.0	0.7
9	8.1	17.2	0.8
10	5.6	30.9	0.9
11	4.0	357.3	0.8
12	3.7	332.8	0.7
13	4.1	278.1	0.6
14	4.6	295.4	0.6
15	4.6	314.8	0.6
16	4.3	267.8	0.3
17	4.4	257.4	0.4
18	5.7	256.8	0.6
19	6.4	256.0	0.8

STOP TIME FEB 21,1980 HOUR 18 MINUTE 4

RELEASE NUMBER 80007 DECAY TANK PURGE

STARTING TIME MAR 24,1980 HOUR 18 MINUTE 0

TIME HOUR	WS10 MPH	WD10 DEG	DT100 DEG C
18	7.0	79.9	0.3
19	6.5	109.7	0.6
20	5.4	111.2	1.1
21	4.1	146.0	1.1
22	2.5	115.2	1.4
23	2.9	124.8	2.0
24	1.6	272.3	1.7
1	1.1	226.4	1.6
2	3.0	337.7	1.9
3	2.9	326.6	1.4
4	2.5	312.5	1.3
5	2.2	305.9	1.2
6	1.5	254.9	0.9
7	0.9	220.7	0.8
8	3.2	111.5	0.5
9	4.9	105.5	0.2
10	5.4	122.5	0.1
11	5.8	174.3	0.1
12	5.1	170.7	0.1
13	5.7	147.9	0.0
14	6.1	166.6	-0.0
15	7.4	148.3	-0.0
16	8.4	159.4	-0.1
17	9.3	156.2	-0.0

STOP TIME MAR 25,1980 HOUR 16 MINUTE 16

RELEASE NUMBER 80008 DECAY TANK PURGE

STARTING TIME APR 17,1980 HOUR 12 MINUTE 50

TIME HOUR	WS10 MPH	WD10 DEG	DT100 DEG C
12	7.2	100.6	-0.0
13	9.2	112.4	-0.1
14	8.7	95.9	-0.1
15	10.6	113.2	-0.1
16	10.7	125.7	-0.0
17	8.4	117.4	0.1
18	8.3	119.8	0.4
19	7.9	142.7	0.7
20	7.7	163.5	1.4
21	5.1	168.8	2.1
22	3.5	208.1	2.6
23	2.7	202.1	2.8
24	3.0	216.3	3.4
1	2.2	139.8	5.1
2	2.2	123.3	6.3
3	1.8	158.0	6.6
4	1.4	242.7	6.5
5	1.4	160.7	6.8
6	1.3	246.6	8.0
7	1.6	174.3	7.2
8	1.5	144.1	4.5
9	2.9	81.9	1.5
10	5.3	239.5	0.1
11	8.2	226.2	-0.2

STOP TIME APR 19,1980 HOUR 10 MINUTE 15

RELEASE NUMBER 80009 DECAY TANK PURGE

STARTING TIME MAY 15,1980 HOUR 19 MINUTE 2

TIME HOUR	WS10 MPH	WD10 DEG	DT100 DEG C
19	10.0	118.0	0.4
19	8.8	124.2	0.5
20	7.7	134.8	1.0
21	7.2	132.8	1.0
22	7.2	131.0	1.1
23	8.6	132.0	0.8
24	9.8	134.4	0.7
1	9.4	133.3	0.6
2	9.7	135.1	0.6
3	11.5	141.4	0.5
4	10.1	136.7	0.5
5	9.3	133.5	0.5
6	8.8	134.2	0.4
7	8.4	142.1	0.4
8	7.7	146.0	0.5
9	7.7	135.1	0.6
10	8.8	103.0	0.7
11	-99.0	-99.0	-99.0
12	-99.0	-99.0	-99.0
13	8.5	104.5	0.7

STOP TIME MAY 16,1980 HOUR 12 MINUTE 40

STARTING TIME MAY 16,1980 HOUR 13 MINUTE 3

TIME HOUR	WS10 MPH	WD10 DEG	DT100 DEG C
13	8.5	104.5	0.7
14	8.1	111.0	0.7
15	6.6	89.7	0.6
16	8.0	98.2	0.7
17	8.3	105.8	0.8
18	9.6	111.2	0.9
19	8.7	108.2	1.0
20	8.7	108.5	1.0
21	8.2	113.4	1.0
22	7.5	110.6	1.0
23	6.4	107.8	0.9
24	4.6	102.4	0.9
1	4.0	86.4	0.9
2	4.2	92.1	0.8
3	3.2	90.2	0.8

STOP TIME MAY 17,1980 HOUR 14 MINUTE 10

RELEASE NUMBER 80010 DECAY TANK PURGE

STARTING TIME JUNE 5,1980 HOUR 20 MINUTE 0

TIME HOUR	WS10 MPH	WD10 DEG	DT100 DEG C
20	8.2	220.4	2.0
21	9.0	230.6	3.6
22	8.3	242.4	5.3
23	2.6	302.9	2.6
24	3.7	328.5	2.0
1	2.8	310.3	1.8
2	3.2	322.5	1.4
3	1.8	8.0	1.1

STOP TIME JUNE 6,1980 HOUR 2 MINUTE 58

STARTING TIME JUNE 6,1980 HOUR 3 MINUTE 58

TIME HOUR	WS10 MPH	WD10 DEG	DT100 DEG C
3	1.8	8.0	1.1
4	1.4	329.6	0.8
5	1.4	333.1	0.6
6	1.3	293.7	0.7
7	11.5	40.4	-1.4

STOP TIME JUNE 6,1980 HOUR 6 MINUTE 18

RELEASE NUMBER A0011 DECAY TANK PURGE

STARTING TIME JUNE 6,1980 HOUR 12 MINUTE 9

TIME HOUR	WS10 MPH	WD10 DEG	DT100 DEG C
12	14.4	60.1	-1.6
13	11.5	119.7	-1.4
14	7.6	124.2	-1.3
15	4.2	96.4	-1.7
16	2.9	59.2	-2.5
17	3.2	346.0	-2.5
18	3.7	330.9	-0.9
19	1.8	338.3	-0.8
20	1.7	284.5	0.3
21	3.6	180.9	1.6
22	3.8	157.5	1.8

STOP TIME JUNE 6,1980 HOUR 21 MINUTE 0

RELEASE NUMBER 80012 DECAY TANK PURGE

STARTING TIME JUNE 9,1980 HOUR 18 MINUTE 11

TIME HOUR	WS10 MPH	WD10 DEG	DT100 DEG C
18	7.5	333.7	-1.1
19	4.9	332.5	-0.5
20	2.2	324.5	1.4
21	2.1	319.2	3.0
22	2.2	314.9	4.0
23	2.3	313.8	4.1
24	2.8	268.8	3.3
1	2.8	304.5	5.5
2	2.2	47.4	6.3
3	1.5	227.4	5.1

STOP TIME JUNE 10,1980 HOUR 2 MINUTE 55

Section V

Environmental Monitoring (5.9.4.b)

5.9.5.b. Environmental Monitoring

1. (a) and (b) The number of sampling locations, sample collection frequency, and the number of samples collected during this six-month period for each class of sample is given in Table 1.

   (c) During the semi-annual period of July 1 through December 31, 1979, levels of radiation were not found to be significantly above local background at any sample location.

   (d) Table 5 contains a complete summary of program findings. For each type of analysis of each sampled medium, this table reflects all indicator locations, all control locations, and the location with the highest six-month mean result.

   (e) Table 6 contains the remaining program findings from July through December, 1979, that were not available for reporting during the last semi-annual period, July through December, 1979.

2. The levels of radioactivity exhibited in the environmental radiological monitoring program do not indicate the likelihood of public intakes in excess of one percent of those that would result from continuous exposure to the concentration values listed in Table II of Appendix B of 10 CFR 20.

3. There existed no statistically significant off-site environmental concentration attributable to plant activity.

Table 1 Sample Collection Program

Sample Class	Collection Frequency	Sample Location	Number of Samples Collected This Period
Air Particulates	Weekly	Five (5)	138
Airborne Iodine	Weekly	Five (5)	136
Background Radiation (TLD)	Quarterly	Eleven (11) Four (4)	22 8
Background Radiation (G-M Survey)	Quarterly	Fifteen (15)	30
Fresh Milk	Weekly Quarterly	Four (4) Four (4)	47 8
Preserved Milk	Quarterly Comp.	Four (4)	8
Surface Water	Monthly	Five (5)	30
Well Water	Quarterly Comp.	Four (4)	8
Precipitation	Monthly Comp. Quarterly Comp.	One (1) One (1)	3 1
Cattlefeed	Quarterly	Six (6)	12
Vegetation	Annually	Six (6)	8
Soil	Annually	Four (4)	8
Mud and Silt	Annually	Three (3)	3
Wildlife	Annually	One (1)	1
Fish	Annually	One (1)	6
Benthic Organisms	Annually	One (1)	2

Table 2 Sampling Locations, Fort Calhoun Nuclear Power Station

Station Code	Site Description	Site Azimuth and Degrees*
0-1a	On site	0.2 mi. @ 294°
0-1b	On site crop fields	0.4 mi. @ 225-285°
0-2	Substation at S. 16th St. in Blair, Nebraska	3.1 mi. @ 286°
0-3	Fort Calhoun Fire Station	4.8 mi. @ 149°
0-4	Electric Building at 17th and Harney, Omaha, Nebraska	22 mi. @ 152°
0-5	On site	0.1 mi. @ 74°
0-6	0.5 miles downstream from Reactor Containment Bldg. on west bank of Missouri R.	0.4 mi. @ 106°
0-7	125' upstream from site intake structure on west bank of Missouri R.	0.1 mi. @ 345°
0-8a	Fence surrounding intake gate control valve, DeSoto Nat'l Wildlife Refuge	2.0 mi. @ 101°
0-8b	DeSoto Bend Lake, at boat dock ramp, DeSoto Nat'l Wildlife Refuge	3.7 mi. @ 118°
0-8c	Headquarters Bldg., DeSoto Nat'l Wildlife Refuge	3.1 mi. @ 53°
0-8d	Crop fields within or near DeSot Nat'l Wildlife Refuge	2.4 mi. @ 64-74°
0-9	Metro Utilities District Chem. Lab for Florence Plant, North Omaha, Nebraska (downstream of site)	17 mi. @ 156°
0-10	Council Bluffs Municipal Water Works Intake, Council Bluffs, Iowa (downstream of site)	22 mi. @ 145°
0-11	One mile NW of site entrance on Hwy. 73	0.9 mi. @ 248°
0-12	Rhon weather station; north site boundary	0.5 mi. @ 304°
0-13	Entrance to plant site from Hwy. 73	0.5 mi. @ 206°
0-14	Mechanical weather station	0.1 mi. @ 113°
0-15	Bridge on Hwy. 73 at north edge of DeSoto, Nebraska	1.6 mi. @ 144°

Table 2 (Continued)

Station Code	Site Description	Site Azimuth and Degrees*
0-16	Smith Farm	1.9 mi. @ 133°
0-17	Dana College, Blair, Nebraska	4.3 mi. @ 295°
0-18	Bridge on Hwy. 30 east of Blair, Nebraska, over Missouri R.	2.2 mi. @ 334°
0-19	J. Rand Farm	1.9 mi. @ 15°
0-20	S. Rand Farm	1.9 mi. @ 31°
0-21	B. Jones Farm	1.0 mi. @ 155°
0-22	G. Sawall/Schideler Farm	1.1 mi. @ 204°
0-23	C. Jensen	1.1 mi. @ 250°
0-24	M. Hansen/Suverkrubbe Farm	1.2 mi. @ 277°
0-25	Blair Sr. High School, Blair, Nebraska	3.0 mi. @ 308°
0-26	Japp Dairy	6.3 mi. @ 334°
0-27	Flynn Dairy	3.4 mi. @ 310°
0-29	75' downstream of lagoon discharge on west bank of Missouri R.	0.1 mi. @ 81°
0-30	Agrico Ammonia Plant, on Hwy. 30, one mile east of Blair, Nebraska	1.8 mi. @ 325°
0-31	L. Rogge Farm	2.1 mi. @ 278°
0-32	Sonderup/Sorensen Farm	3.7 mi. @ 328°
0-33	Garden two miles NW of site entrance on east side of Hwy. 30	1.5 mi. @ 271°
0-34	C. Marr and Sons field	4.3 mi. @ 147°
0-36	Farm near DeSoto vegetable stand one mile SE of plant on Hwy. 73	1.0 mi. @ 153°
0-42	Miller Farm	0.8 mi. @ 206°
0-43	Fish sampling area; Missouri R. within three miles of site	1.0 mi. above Blair bridge 1.0 mi. above Blair bridge
0-44	A. Wulf Farm	8.8 mi. @ 225°

*Distance and direction are specified relative to Reactor Containment Bldg.

Table 3 Sample Collection and Analysis Program, Fort Calhoun Nuclear Power Station

Sample Type	Collection Type and Frequency[a]	Analysis Type and Frequency[b]	Number of Sites and Sample Code	Location Code[c]	Site Type Control/ Indicator
Background Radiation (TLD)	C/Q	Gamma Dose	11: OFA	0-11	I
			OFB	0-8a	I
			OFC	0-12	I
			OFD	0-13	I
			OFE	0-14	I
			OFF	0-1a	I
			OFG	0-15	I
			OFH	0-2	I
			OFI	0-16	C
			OFJ	0-6	I
			OFK	0-4	C
			4[d]: Control	-	-
			I-Hot Lab	-	-
			13	-	-
			Env. Lab	-	-
G-M Survey	G/Q	Beta-Gamma	15: A	0-11	I
			B	0-17	I
			C	0-18	I
			D	0-1a	I
			E	0-3	I
			F	0-8a	I
			G	0-19	I
			H	0-20	I
			I	0-21	I
			J	0-16	I
			K	0-22	I
			L	0-23	I
			M	0-24	I
			N	0-25	I
			P	0-4	C
Airborne Particulates	C/W	Gross Beta[e]	5: OAA	0-1a	I
			OAB	0-2	I
			OAC	0-3	I
			OAD	0-4	C
			OAE	0-5	I
Airborne Iodine	C/W	I-131	5: Same as Airborne Particulates		
Well Water	G/M	Gross Beta (QC)[f]	4: OWW-A	0-8c	I
			OWW-E	0-16	I
		Tritium (QC)	OWW-F	0-22	I
			OWW-I	0-25	I

Table 3 (Continued)

Sample Type	Collection Type and Frequency[a]	Analysis Type and Frequency[b]	Number of Sites and Sample Code	Location Code[c]	Site Type Control/ Indicator
Precipitation	C/M	Gross Beta[f] (2nd & 3rd qtrs.)	1: OPA	0-30	I
	C/Q	Gross Beta[f] (QC) (1st & 4th qtrs.)			
Milk - Fresh	G/W (pasture season only)	I-131	4: OFM-A	0-26	C
			OFM-B	0-27	I
			OFM-D	0-42	I
	G/Q	Gamma Spec.	OFM-E	0-44	C
Milk - Preserved	G/W	Gross Beta (QC) Sr-90 (QC)	4: Same as for Fresh Milk		
Vegetation	G/A	Gamma Spec. Sr-90	6: OVA	0-33	I
			OVB	0-34	I
			OVC	0-42	I
			OVD	0-36	I
			OVE	0-8d	I
			OVG	0-1b	I
Cattlefeed Beef	G/Q	Gamma Spec. Sr-90	2: OCA	0-31	I
			OCB	0-32	I
Cattlefeed Dairy	G/Q	Gamma Spec. Sr-90	4: DFV-1	0-26	C
			DFV-2	0-27	I
			DFV-3	0-42	C
			DFV-4	0-44	I
Soil	G/A	Gamma Spec. Sr-90	4: ODA	0-26	C
			ODB	0-27	I
			ODC	0-44	C
			ODD	0-42	I
Surface Water	G/W	Gross Beta (MC) Tritium (MC)[g]	5: OSW-A	0-6	I
			OSW-B	0-9	I
			OSW-C	0-10	I
			OSW-D	0-8b	I
			OSW-E	0-7	C
Fish	G/A	Gamma Spec. Sr-90	1: OMA	0-43	I
Mud and Silt	A	Gamma Spec. Sr-90	2: OSB	0-29	I
			OSD	0-7	C

Table 3 (Continued)

Sample Type	Collection Type and Frequency[a]	Analysis Type and Frequency[b]	Number of Sites and Sample Code	Location Code[c]	Site Type Control/ Indicator
Wildlife	A	Gamma Spec. on flesh Sr-90 on bone	1: ORA	-	I
Benthic Organisms	A	Gamma Spec. Sr-90	1: OMA	Discharge Canal	I

[a]Collection type is coded as follows: C/ = continuous; G/ = grab. Collection frequency is coded as follows: W = weekly; M = monthly; Q = quarterly; A = annually.

[b]Analysis frequency is coded as follows: MC = monthly composite; QC = quarterly composite. Analysis frequency is indicated only if it is different from collection frequency.

[c]Location codes are defined in Table 2.

[d]Additional collection or analysis not required by the Technical Specifications.

[e]Gamma spectrometry of air particulates required if gross beta exceeds 30 pCi/l.

[f]Tritium, Sr-90, and gamma spectrometry required of well water or precipitation if gross beta exceeds 30 pCi/l.

[g]Sr-90 and gamma spectrometry analyses required of surface water if gross beta exceeds 60 pCi/l.

Table 4 Sensitivity Requirements

Sample	Units	Gross Beta	Sr-90	H-3	Gamma Scan I-131	Gamma Scan Cs-137
Surface Water	pCi/l	0.5	1.0	2000***	2.0*	2.0
Well Water	pCi/l	0.5	1.0	2000	2.0*	2.0
Mud and Silt	pCi/g (dry)	0.4*	0.008	---	---	0.1
Fish	pCi/g (wet)	0.1*	0.02	---	---	0.035
Milk	pCi/l	6.0	1.0	---	0.5	2.0
Vegetation	pCi/g (wet)	0.15	0.03	10*	---	0.2
Air	pCi/m^3	0.02	---	---	0.2	---
Wildlife	**pCi/g (wet)	---	3.0	---	5.0	---
Film/or Tld	---	10 mrem/month above background	---	---	---	---

* Analyses not required in present program.

** Rabbit: Strontium-90 = pCi/g Calcium in Femur.
Iodine-131 = pCi/g of Thyroid.

*** OPPD requires 200 pCi/liter.

Table 5

Environmental Radiological Monitoring Program

Name of Facility: Fort Calhoun Nuclear Station Unit No. 1 Docket Number: 50-285

Location of Facility: Washington (County) Nebraska (State) Reporting Period: January - June 1980

Medium or Pathway Sampled (Unit of Measurement)	Type and Total Number of Analyses Performed	Lower Limit of Detection (LLD)	All Indicator Locations Mean[1] (Range)	Location With Highest Mean: Name, Distance and Direction	Location With Highest Mean: Mean (Range)	Control Locations Mean[1] (Range)	Number of Non-Routine Reported Measurements
Air Particulates (pCi/m^3)	Gross β 131	0.02	0.04 (127/131) 0.02-0.08	OnSite at Oxigester	0.04 0.02-0.08	0.04 (25/26) 0.02-0.08	0
	γ Spec. 30	0.01	All LLD	Not Applicable		All LLD	0
Airborne Iodine (pCi/m^3)	I-131 129	0.2	All LLD	Not Applicable		All LLD	0
Background Radiation TLD (mR/week)	γ Dose 22	0.1	1.5 (18/18) 1.3-1.9	Hwy 73 Bridge, DeSoto 1.6 mi @ 144°	1.9 1.9	1.65 (4/4) 1.6-1.7	0
Background Radiation G-M Survey (mR/hour)	Beta-Gamma 30	0.05	0.05 (9/28) 0.05	9 locations equal	0.05 0.05	All LLD	0
Fresh Milk (pCi/l)	I-131 52	0.5	All LLD	Not Applicable		All LLD	0
	γ Spec. 8	2.0	All LLD	Not Applicable		All LLD	0
Preserved Milk[2] (pCi/l)	Gross β 4	6.0	2350 (2/2) 2100-2600	Miller Farm 0.8 mi @ 206°	2600 2600	2250 (2/2) 2200-2300	0
	Sr-90 4	1.0	All LLD	Not Applicable		2.4 (1/2) 2.4	0
Precipitation (pCi/l)	Gross β 4	0.5	8.75 (4/4) 4-16	Agrico Amm. Plant 9600' @ 325°	8.75 4-16	Not Measured	0
Surface Water (pCi/l)	Gross β 30	0.5	7.5 (24/24) 2-11	DeSoto W/L Refuge 3.7 mi @ 118°	7.8 4-11	7.3 (6/6) 4-11	0
	Tritium 30	200	253 (21/24) 150-360	2000' Downstream 0.4 mi @ 106°	300 250-260	205 (6/6) 160-270	0

[1]Mean and range based on detectable measurements only. Fractions indicated in parentheses.
[2]Second quarter preserved milk samples were inadvertently misanalyzed.

Table 5 (Continued)

Facility: Fort Calhoun Nuclear Station Unit No. 1

Medium or Pathway Sampled (Unit of Measurement)	Type and Total Number of Analyses Performed	Lower Limit of Detection (LLD)	All Indicator Locations Mean[1] (Range)	Location With Highest Mean		Control Locations Mean[1] (Range)	Number of Non-Routine Reported Measurements
				Name, Distance and Direction	Mean (Range)		
Well Water (pCi/l)	Gross β 8	0.5	5 (8/8) 3-9	Smith Farm 10000' @ 133°	5 5	Not Measured	0
	Tritium 8	200	295 (2/8) 200-390	Smith Farm 10000' @ 133°	295 200-390	Not Measured	0
Quality Assurance Water (pCi/l)	Gross β 8	0.5	7.0 (8/8) 4-10	Not Applicable		Not Measured	0
	Tritium 8	200	260 (8/8) 140-340	Not Applicable		Not Measured	0
	γ Spec. 8	2.0	All LLD	Not Applicable		Not Measured	0
Cattlefeed (pCi/g wet)	γ Spec. 12	0.2	All LLD	Not Applicable		All LLD	0
	Sr-90 12	0.03	All LLD	Not Applicable		All LLD	0
Mud and Silt (pCi/g dry)	γ Spec. 3	0.1	All LLD	Not Applicable		All LLD	0
	Sr-90 3	0.008	0.031 (2/2) 0.020-0.041	75' Down-stream of Lagoon Discharge 0.1 mi @ 81°	0.041 0.041	0.030 (1/1) 0.030	0

[1]Mean and range based on detectable measurements only. Fractions indicated in parentheses.

Table 6

Environmental Radiological Monitoring Program Semi-Annual Summary

Name of Facility: Fort Calhoun Nuclear Station Unit No. 1 Docket Number: 50-285

Location of Facility: Washington (County) Nebraska (State) Reporting Period: July - December 1979

Medium or Pathway Sampled (Unit of Measurement)	Type and Total Number of Analyses Performed	Lower Limit of Detection (LLD)	All Indicator Locations Mean[1] (Range)	Location With Highest Mean: Name, Distance and Direction	Location With Highest Mean: Mean (Range)	Control Locations Mean[1] (Range)	Number of Non-Routine Reported Measurements
Preserved Milk (pCi/l)	Gross β 8	6.0	750 (4/4) 500-1000	Flynn & Miller Dairies Equal	750 750	650 (4/4) 200-1100	0
	Sr-90 8	1.0	2.3 (3/4) 2-3	Miller Farm 0.8 mi @ 206°	2.5 2-3	2.5 (4/4) 2-3	0
Well Water (pCi/l)	Gross β 8	0.5	8.3 (8/8) 5-14	Smith Farm 10000' @ 133°	13 12-14	Not Measured	0
	Tritium 8	200	240 (1/4) 240	Smith Farm 10000' @ 133°	240 240	Not Measured	0
Cattlefeed (pCi/g wet)	γ Spec. 12	0.2	All LLD	Not Applicable		All LLD	0
	Sr-90 12	0.03	All LLD	Not Applicable		All LLD	0
Soil (pCi/g dry)	Cs-137 8	0.1	0.2 (1/4) 0.2	Miller Farm 0.8 mi @ 206°	0.2 0.2	0.3 (3/4) 0.2-0.4	0
	Other γ 8	0.1	All LLD	Not Applicable		All LLD	0
	Sr-90 8	0.008	0.107 (4/4) 0.046-0.184	Miller Farm 0.8 mi @ 206°	0.146 0.108-0.184	0.113 (3/4) 0.050-0.163	0
Mud and Silt (pCi/g dry)	Cs-137 3	0.1	0.1 (1/2) 0.1	75' Downstream From Lagoon Disch. 0.1 mi @ 81°	0.1 0.1	All LLD	0
	Other γ 3	0.1	All LLD	Not Applicable		All LLD	0
	Sr-90 3	0.008	0.019 (1/2) 0.019	2000' Downstream	0.019 0.019	0.056 (1/1) 0.056	0
Animal (pCi/g wet)	γ Spec. on Flesh 1	5.0	All LLD	Not Applicable		Not Measured	0
	Sr-90 on Bone 1	3.0	All LLD	Not Applicable		Not Measured	0

[1]Mean and range based on detectable measurements only. Fractions indicated in parentheses.

Table 6 (Continued)

Facility: Fort Calhoun Nuclear Station Unit No. 1

Medium or Pathway Sampled (Unit of Measurement)	Type and Total Number of Analyses Performed	Lower Limit of Detection (LLD)	All Indicator Locations Mean[1] (Range)	Location With Highest Mean		Control Locations Mean[1] (Range)	Number of Non-Routine Reported Measurements
				Name, Distance and Direction	Mean (Range)		
Fish	γ Spec. 4	0.035	All LLD	Not Applicable		Not Measured	0
	Sr-90 4	0.02	0.04 (4/4) 0.02-0.05	1 mi Above Blair Br. (NE)	0.05 0.05	Not Measured	0
Benthic Organisms (pCi/g wet)	γ Spec. 2	0.035	<2.5(a) (2/2) <2-<3	250' Upstr. Ambient Disch.	<3 <3	Not Measured	0
	Sr-90 2	0.02	<1.5(a) (2/2) <1-<2	250' Upstr. Ambient Disch.	<2 <2	Not Measured	0

[1]Mean and range based on detectable measurements only. Fractions indicated in parentheses.
(a)Insufficient sample for more sensitive analysis.

Section VI

Environmental Technical Specifications - Non-Radiological

(Appendix B)

*B. ENVIRONMENTAL TECHNICAL SPECIFICATIONS (NON-RADIOLOGICAL) APPENDIX B

1. Operating Limits

1.1 Condenser Cooling Water Temperature Limit:

1. The maximum discharge temperature was 100°F.

2. & 3. The maximum difference (ΔT) between the ambient temperature of the Missouri River, as measured just upstream from the cooling water intake structure, and the temperature of the cooling water at the discharge was 23°F during periods of ambient river water temperatures greater than 55°F. The maximum ΔT between the ambient temperature, measured just upstream of the cooling water intake structure, and the temperature of the cooling water at the discharge was 24°F during periods of ambient river temperatures less than or equal to 55°F.

1.2 Chemical Discharge Limits:

1. Chlorination of the condenser cooling water system has not occurred since commencement of plant operation.

2. & 3. The cooling water discharge pH ranged from a maximum of 8.3 to a minimum of 7.8. The average pH through the semi-annual period was 8.1.

The chemical equalization and decantation holding basin (lagoon) discharge parameters ranged as follows:

	Total Suspended Solids Concentration mg/l	Flow Rate MGD	Quantity of Solids Released Kg/Day	pH
Maximum -	24.0	.341	17.5	8.8
Average -	8.5	.210	6.8	7.4
Minimum -	2.3	.117	1.42	3.9

*Each paragraph number in this section corresponds exactly to the number of that requirement in Appendix B, Operating License No. DPR-40, Environmental Technical Specifications.

2. Monitoring and Surveillance Program

2.1 Monitoring of Thermal Discharges:

1. Temperature Monitoring

Upstream river ambient and cooling water intake and discharge temperatures were continuously monitored and recorded, and dates and time intervals of recirculating discharge water for ice control at the intake were also recorded. All continuously recorded information has been analyzed and reduced to hourly data and is seen to correlate with station operating levels. Compliance with specified limits has been summarized in Section 1.1.

2. Thermal Plume Measurements

Surface and triple depth thermal plume measurements were made during the month of June, 1980, to produce isotherm plots of the downstream thermal plume, Figures I and II. No plume measurements were taken during the months of January through May, 1980, due to plant inoperativeness. The magnitude of the June thermal plume correlates with station operating level, circulating water discharge flow and Missouri River flow, and is similar to conditions previously documented (reference Fort Calhoun Station Unit No. 1 Five Year Report). Downstream isotherms at the surface, at one-half depth, and at the bottom were determined utilizing upstream ambient river transect averages at the surface, one-half depth, and at the bottom, respectively. Measurements made during June, 1980, at sampling transects downstream are presented in Table III.

2.2 Monitoring and Reporting on Loss of Biota by Impingement:

1. Traveling Screen Impingement Study

An accumulative data computer analysis (see Table I) summarized impingement of fish and other aquatic fauna for the period January 1, 1980, through June 30, 1980, in accordance with Technical Specifications. Table II presents a ranking by species.

2. Sampling Frequency in the Eighth Year of Operation

An evaluation of fish impingement after five years of plant operation was reported in the Fort Calhoun Station Unit No. 1 Five Year Report. This evaluation concluded that all specific objectives of the study had been successfully completed, and that the level of impingement was within an acceptable range. Facility License Change 79-1 was submitted to the Commission on February 2, 1979, to eliminate the impingement study.

Sampling frequency will remain the same during the eighth year of operation until a decision is reached by the Commission in regard to Facility License Change 79-1.

3. Study and Evaluation Programs

3.1 Periphyton, Macroinvertebrates, and Fish:

Data analysis and reporting of results from the pre-operational and post-operational studies through December 31, 1977, was reported in the Fort Calhoun Station Unit No. 1 Five Year Report.

Collection of periphyton, macroinvertebrates, and fish continued as scheduled throughout the period of January 1, 1980, through June 30, 1980.

Fish Population Study

The adult and juvenile fish community in the Missouri River near the Fort Calhoun Station was sampled monthly from April through June, 1980, as part of the station's on-going environmental monitoring program. The study was designed to characterize the fish community in the Missouri River upstream and downstream of the station. Adult and juvenile fish were collected by electroshocking and seining on April 24, May 15, and June 13, 1980. The objectives of this study were to investigate:

1. fish species composition and relative abundance,

2. spatial and temporal distribution of fish within the study area, and

3. food habits of selected species collected.

Summary and Conclusions

1. A total of 639 fish, representing 23 species, was collected from April through June, 1980. Carp (34.1%), goldeye (18.2%), and gizzard shad (17.4%) comprised 69.7% of the total catch.

2. Electroshocking yielded a total of 554 fish, representing 16 species. Carp (39.4%), goldeye (20.9%), gizzard shad (20.0%), shortnose gar (7.8%), and river carpsucker (6.1%) comprised 94.2% of the total electroshocking catch.

3. Catch per unit effort (30 minutes of electroshocking) ranged from 89 fish at Location 3 on April 24 to 35 fish at Location 2 on May 15.

4. Seining yielded a total of 85 fish, representing 7 species. Thirty fish were collected in April, 46 in May, and 9 in June. Emerald shiners (52.9%), red shiners (17.6%), sand shiners (14.1%), and rainbow smelt (9.4%) comprised 94.0% of the total seine catch.

5. Stomach contents from fish collected will be analyzed and reported at a later date.

6. The Fort Calhoun Station was non-operational during the first 2 monthly sample periods in April and May and was operating at 97.8% on June 13.

Eleven-Agency Study Programs

All data collection efforts by the eleven agencies have been terminated. Data from pre-operational and post-operational studies were evaluated and results were reported in the Fort Calhoun Station Unit No. 1 Five Year Report. The following papers have been written by the Nebraska Department of Environmental Control, the Region VII Environmental Protection Agency, and the Nebraska Game and Parks Commission, respectively.

1. "Chemical and Physical Characteristics of the Missouri River Near Fort Calhoun and Cooper Nuclear Station"

2. "Effects of Heated Waste Water Discharges from Fort Calhoun and Cooper Nuclear Power Stations Upon the Biota of the Missouri River"

3. "Effects of Cooling Water Discharges from Fort Calhoun and Cooper Nuclear Stations of the Fishes of the Missouri River"

Dr. Glen Cada submitted his Ph.D. thesis entitled "The Entrainment of Larval Fishes at Two Nuclear Power Plants on the Missouri River in Nebraska". This is also an eleven-agency component completed in 1977 under the direction of Dr. Gary Hergenrader of the University of Nebraska at Lincoln and submitted to the District in accordance with Section 3.2 of the Environmental Technical Specifications, Appendix B.

3.2 Ichthyoplankton Entrainment Effects:

INTRODUCTION

This report presents a summary of fish larvae collected April through June, 1980, from the Missouri River near the Fort Calhoun Station. Statistically significant results were obtained for June 16, 23, and 30. Larval fish numbers were too low prior to this.

The specific objectives of this study were:

1. To determine species composition of fish larvae in the Missouri River.

2. To document abundance and horizontal distribution of fish larvae in the Missouri River.

3. To evaluate the immediate effects of condenser passage on fish larvae viability.

4. Analyze the effects of the thermal plume on fish larvae viability.

5. To predict the effects of entrainment on the total fish assemblage passing the Fort Calhoun Station.

SUMMARY AND CONCLUSIONS

1. The discharge temperatures were 28.9°C (84°F) on June 16, 30.2°C (86.4°F) on June 23, and 32.9°C (91.2°F) on June 30. The plant was operating at 99.0% power on June 16, 99.3% power on June 23, and 99.8% power on June 30.

2. Cooling water flow was 360,000 gpm and river flow was 36,200 cfs, 34,300 cfs, and 33,600 cfs, respectively, for the above dates.

3. A total of 6300 individuals were collected at the cross channel locations for the three June dates. A total of 3020 individuals were collected from the control, plume, and discharge locations.

4. Identification and measurement of the fish larvae collected has not been completed and will be presented at a later date.

5. Mean cross channel densities were 2.216/m^3 on June 16, 1.82/m^3 on June 23, and 1.18/m^3 on June 30.

6. Larval fish densities were significantly greater along the Nebraska shore (Location I) when compared to densities at mid-channel (Location II) and along the Iowa shore (Location III). Average larval densities at Location I were approximately 3 times greater than Location II and about 1.2 times greater than Location III.

7. Larval fish mortality at the control ranged from a high of 86.8% on June 16 to 70.9% on June 23 and 70.8% for June 30. Discharge mortalities were 98.0% for June 16, 97.3% on June 23, and 96.7% for June 30. Plume mortalities were 91.5%, 80.4%, and 74.4% for the three dates, respectively.

8. The average number of fish passing the Fort Calhoun Station was 2337 larvae/sec. on June 16, 1735 larvae/sec. on June 23, and 1085 larvae/sec. on June 30.

9. An average of 4.4% of the fish larvae passing the Fort Calhoun Station was subjected to condenser passage on June 16. For June 23, the average was 6.2% and on June 30 it was 2.85%.

10. The plant effect to the live population of larvae in the river showed an increased mortality of 4.3% for June 16. For June 23, the decrease in the life population of larvae was 6.01% and on June 30 the mortality increase was 2.74%.

11. Chi-square analysis showed larval fish mortalities at the discharge were statistically higher when compared to the control for June 23 and 30.

12. The differential mortality in the thermal plume for June 16, 23, and 30 was 4.1%, 9.58%, and 3.59%, respectively. The differential mortality for June 23 was statistically significant.

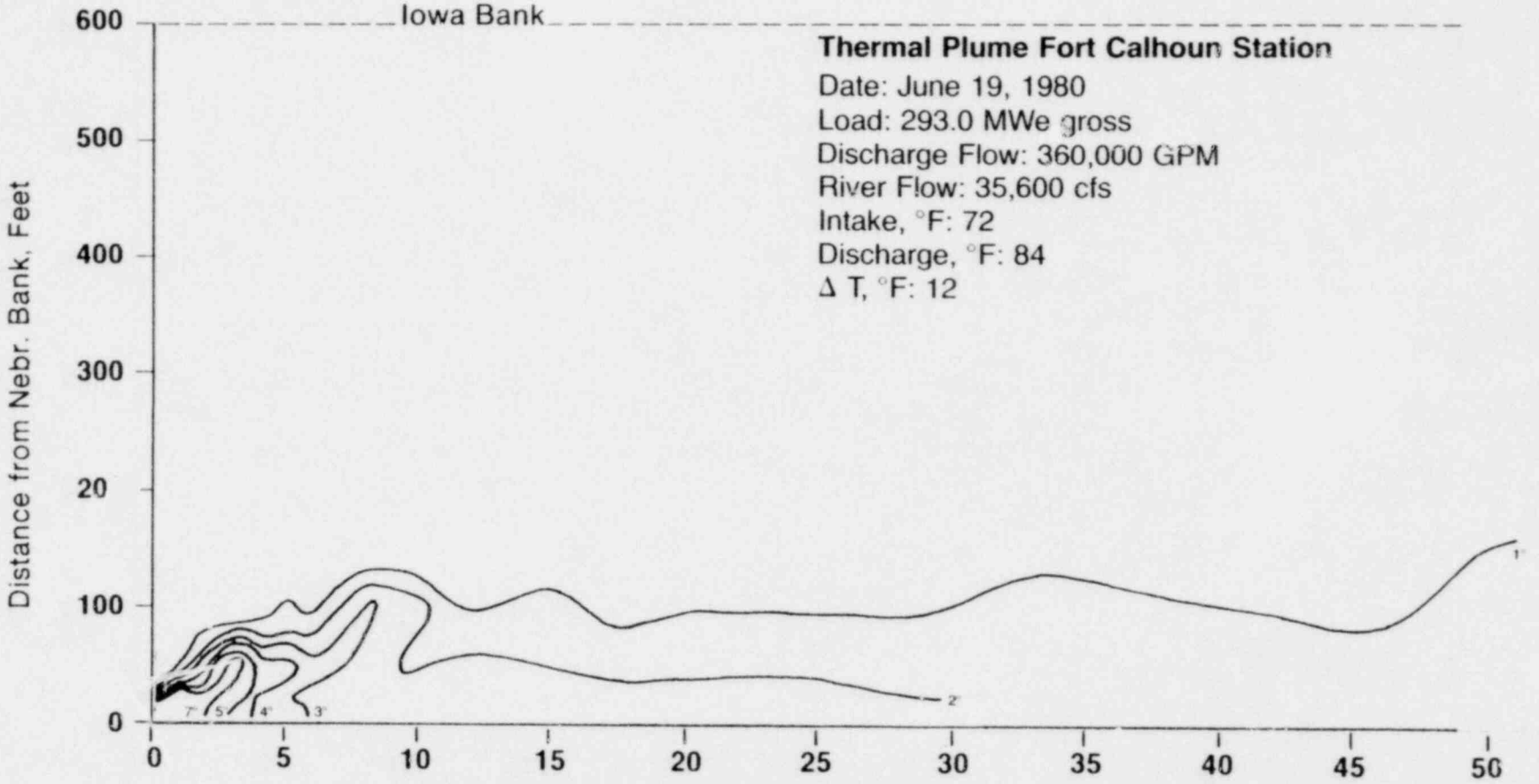
Iowa Bank
Thermal Plume Fort Calhoun Station
Date: June 19, 1980
Load: 293.0 MWe gross
Discharge Flow: 360,000 GPM
River Flow: 35,600 cfs
Intake, °F: 72
Discharge, °F: 84
Δ T, °F: 12
Distance from Nebr. Bank, Feet
600
500
400
300
20
100
0
0
5
10
15
20
25
30
35
40
45
50
Distance Downstream, Feet x 100

Figure I

Thermal Plume Fort Calhoun Station

Date: June 19, 1980
Load: 293.0 MWe gross
Discharge Flow: 360,000 GPM
River Flow: 35,600 cfs
Intake, °F: 72
Discharge, °F: 84
Δ T, °F: 12

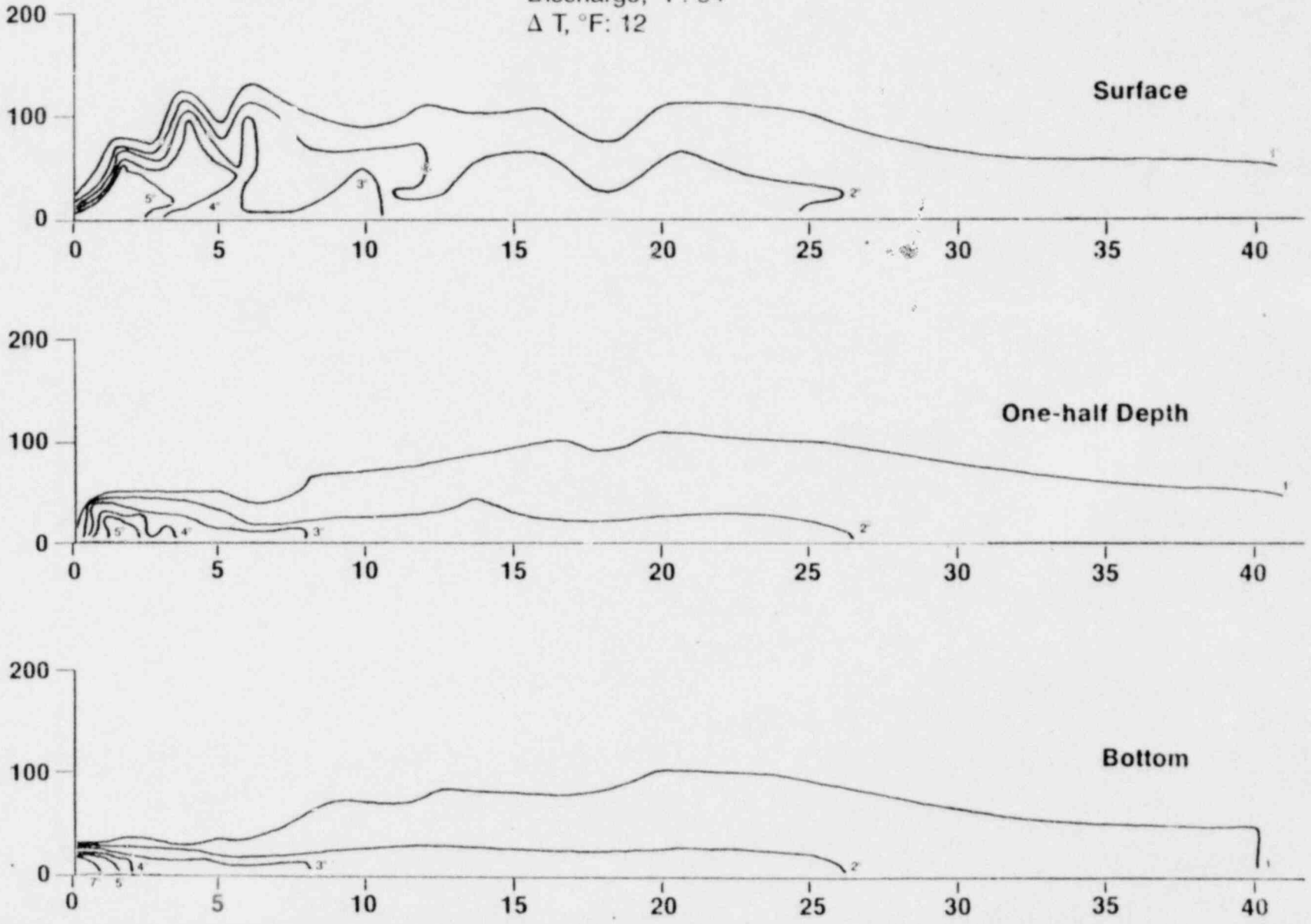

Table I

Omaha Public Power District
Environmental Lab
Traveling Screen Impingement Study

Fish Impingement Study Summary
January 1, 1980, Through June 30, 1980

Accumulative Data

Total Number of Sample Periods		243
Total Number of Sample Periods by Day Where No Organisms Were Impinged		136
Total Number of Sample Periods by Night Where No Organisms Were Impinged		59
Total Number of Fish Impinged		162
Total Number of Fish Impinged by Day		159
Total Number of Fish Impinged by Night		3
Avg. Size Fish Impinged (CM)		9.19
(GM)		6.7
Avg. Size Fish Impinged by Day (CM)		9.22
(GM)		6.7
Avg. Size Fish Impinged by Night (CM)		7.7
(GM)		4.7
Most Common Species Impinged	Pomoxis annularis (Rafinesque)	White Crappie
Most Common Species Impinged by Day	Pomoxis annularis (Rafinesque)	White Crappie
Most Common Species Impinged by Night	Pomoxis annularis (Rafinesque)	White Crappie
Total Number of Non-Fish Aquatic Fauna Impinged		5
Total Number of Non-Fish Aquatic Fauna Impinged by Day		5
Total Number of Non-Fish Aquatic Fauna Impinged by Night		0

Table II

Omaha Public Power District
Environmental Lab
Traveling Screen Impingement Study

Fish Impingement Study Summary
January 1, 1980, Through June 30, 1980

Ranking by Species

	Scientific Name	Common Name	Total #
1	Pomoxis annularis (Rafinesque)	White Crappie	88
2	Osmerus mordax (Mitchill)	Rainbow Smelt	24
3	Lepomis macrochirus (Rafinesque)	Bluegill	23
4	Carpiodes carpio (Rafinesque)	River Carpsucker	4
5	Dorosoma cepedianum (Lesueur)	Gizzard Shad	3
6	Ictalurus punctatus (Rafinesque)	Channel Catfish	3
7	Stizostedion canadense (Smith)	Sauger	3
8	Aplodinotus grunniens (Rafinesque)	Freshwater Drum	3
9	Ictalurus melas (Rafinesque)	Black Bullhead	2
10	Lepomis cyanellus (Rafinesque)	Green Sunfish	2
11	Lepomis humilis (Girard)	Orange Spotted Sunfish	2
12	Cyprinus carpio (Linnaeus)	Carp	1
13	Noturus flavus (Rafinesque)	Stonecat	1
14	Roccus chrysops (Rafinesque)	White Bass	1
15	Pomoxis nigromaculatus (Lesueur)	Black Crappie	1
16	Perca flavescens (Mitchill)	Yellow Perch	1

Table III

Triple Depth Thermal Plume
Fort Calhoun Station
June 19, 1980

	ΔT, °F					
	Distance From Nebraska Bank, in Feet					
	10	25	50	100	150	200
Transect No. 1 (RM 646.0)						
Surface	0.0	0.0	0.0	0.0	0.0	0.0
One-Half Depth	0.0	0.0	0.0	0.0	0.0	0.0
Bottom	0.0	0.0	0.0	0.0	0.0	0.0
Transect No. 1.5 (RM 645.9)						
Surface	6.3	1.3	0.1	0.0	0.0	0.0
One-Half Depth	0.8	0.1	0.1	0.0	0.0	0.0
Bottom	11.8	0.1	0.1	0.0	0.0	0.0
Transect No. 2 (RM 645.6)						
Surface	2.0	2.1	1.8	1.1	0.3	0.2
One-Half Depth	2.1	2.0	1.7	1.0	0.3	0.1
Bottom	2.1	2.0	1.7	1.0	0.3	0.2
Transect No. 3 (RM 644.8)						
Surface	1.7	1.7	1.5	0.3	0.3	0.1
One-Half Depth	1.7	1.7	1.5	0.3	0.3	0.1
Bottom	1.7	1.7	1.5	0.3	0.3	0.1
Transect No. 4 (RM 641.4)						
Surface	1.1	1.1	1.1	0.3	0.2	0.3
One-Half Depth	1.1	1.1	1.1	0.3	0.2	0.3
Bottom	1.1	1.1	1.1	0.3	0.2	0.3
Transect No. 5 (RM 640.2)						
Surface	0.9	0.9	0.9	0.8	0.5	0.3
One-Half Depth	0.9	0.9	0.9	0.8	0.5	0.3
Bottom	0.9	0.9	0.9	0.8	0.5	0.3

Section VII

POTENTIAL DOSES TO INDIVIDUALS AND POPULATIONS
(As Required by Regulatory Guide 1.21, Safety Guide 23)

January 1, 1980 to June 30, 1980

VII. 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 GASPAR program. Results to each receptor are shown in Tables VII-A-1 through VII-A-16. Also, the doses to the same groups in units of millirads (mrad), due to gamma and beta radiation carried by air, were computed using GASPAR. In its annual configuration, GASPAR 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 GASPAR to calculate semiannual doses.

The inputs to GASPAR for the semiannual period from January through June of 1980 were as follows:

(1) All gaseous effluents were as described in Section I. The totals in curies of I-133 and I-135 include all actual and estimated activities. In most cases, I-133 and I-135 activities were estimated, if there was no measurable activity in a release, by exponentially back-calculating to a

mid-week activity using the maximum instrument sensitivity (minimum detectable activity).

(2) Entrained gases (Xe-133 and Xe-135) from liquid effluents were as described in Section II.

(3) Semiannual "X/Q's" at the actual receptor locations, which were corrected for open terrain, plume depletion, and radioactive decay factors were calculated according to Regulatory Guide 1.111. Also included were semiannual deposition rates corrected for the open terrain factor.

(4) The production, intake and grazing fractions were as follows: 1.0 for fresh leafy vegetation grown locally, 0.5 for the pasture grazing season, 0.76 for vegetation intake grown in gardens, 1 for daily intake of animals while on pasture and 8 g/m^3 for the air water concentration.

(5) All dose factors, transport times from receptor to individual, and usage factors were defined by Regulatory Guide 1.109 in GASPAR.

(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/Q's" 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 an environmental area in an extremely conservative manner.

(3) In the majority of the releases, I-133 and I-135 were back-calculated even though there was no measurable activity.

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 population. Results are shown in Table VII-B-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 836,172, based on a 1980 conservative estimate, was used to define the sector segments within the 50-mile radius of the plant.

(1) 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.

Total body, skin and organ mrem doses for liquid releases were calculated for all significant liquid pathways using the annual configuration of the LADTAP program. Results are shown in Tables VII-C-1 through VII-C-11.

The inputs to LADTAP for the semiannual period from January through June 1980 were as follows:

(1) All liquid effluents were as described in Section I, except for the entrained gases (Xe-133 and Xe-135).

(2) A plant discharge rate of 802 cubic feet per second (CFS) was used.

(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 Tables VII-C-1 through VII-C-7 was used. For

Tables VII-C-8 through VII-C-11, a transport time of 0.0 was used from the plant to the discharge from the site.

(5) A shorewidth factor of .2 was used.

(6) All consumption rates, usage rates, and transport times from receptor to individual were as defined by Regulatory Guide 1.109 in LADTAP.

The discharge site in Tables VII-C-8 through VII-C-11 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 836,172 within a 50-mile radius of the plant. Results are shown in Tables VII-D-1 through VII-D-6. The same input were 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 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, attributable to the gamma radiation emitted from the containment structure, were not observed above local background at any TLD and Geiger-Mueller sample locations for this semiannual period.

Details of this sample system are given in Section V, Environmental Monitoring.

FORT CALHOUN 1 RECEPTORS IN ALL SECTORS 8-14-80
SPECIAL LOCATION # 1 RES
AT 4.58 MILES N

SEMI-ANNUAL BETA AIR DOSE = 5.49E-04 MILLRADS
SEMI-ANNUAL GAMMA AIR DOSE = 1.80E-04 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	1.05E-04	1.05E-04	1.05E-04	1.05E-04	1.05E-04	1.05E-04	1.11E-04	3.10E-04
GROUND	3.58E-06	3.58E-06	3.58E-06	3.58E-06	3.58E-06	3.58E-06	3.58E-06	4.19E-06
INHAL								
ADULT	1.96E-06	1.83E-06	3.08E-07	2.07E-06	2.16E-06	7.15E-05	2.00E-06	1.77E-06
TEEN	1.99E-06	1.84E-06	4.00E-07	2.19E-06	2.31E-06	8.75E-05	2.14E-06	1.78E-06
CHILD	1.76E-06	1.60E-06	4.93E-07	1.97E-06	2.07E-06	9.67E-05	1.87E-06	1.57E-06
INFANT	1.03E-06	9.15E-07	3.31E-07	1.25E-06	1.23E-06	8.78E-05	1.14E-06	9.04E-07

FORT CALHOUN 1 RECEPTORS IN ALL SECTORS 8-14-80
SPECIAL LOCATION # 13 BEEF
AT 1.79 MILES N

SEMI-ANNUAL BETA AIR DOSE = 3.59E-03 MILLRADS
SEMI-ANNUAL GAMMA AIR DOSE = 1.23E-03 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	7.23E-04	7.23E-04	7.23E-04	7.23E-04	7.23E-04	7.23E-04	7.59E-04	2.09E-03
MEAT								
ADULT	5.39E-06	3.77E-06	2.41E-06	6.38E-06	5.12E-06	2.60E-04	3.17E-06	2.88E-06
TEEN	3.00E-06	2.22E-06	1.95E-06	4.52E-06	3.53E-06	1.88E-04	1.99E-06	1.72E-06
CHILD	3.16E-06	2.35E-06	3.48E-06	5.70E-06	4.35E-06	2.84E-04	2.39E-06	2.07E-06

TABLE VII-A-1

FORT CALHOUN 1 RECEPTORS IN ALL SECTORS 8-14-80
SPECIAL LOCATION # 2 BEEF,VEG,RES
AT 1.91 MILES NNE

SEMI-ANNUAL BETA AIR DOSE = 3.86E-03 MILLRADS
SEMI-ANNUAL GAMMA AIR DOSE = 1.32E-03 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	7.77E-04	7.77E-04	7.77E-04	7.77E-04	7.77E-04	7.77E-04	8.15E-04	2.24E-03
GROUND	3.32E-05	3.32E-05	3.32E-05	3.32E-05	3.32E-05	3.32E-05	3.32E-05	3.89E-05
VEGET								
ADULT	4.95E-05	2.63E-05	3.77E-05	5.61E-05	4.24E-05	2.25E-03	2.45E-05	2.15E-05
TEEN	4.99E-05	2.89E-05	5.10E-05	7.35E-05	4.95E-05	1.87E-03	3.00E-05	2.46E-05
CHILD	6.38E-05	4.09E-05	1.03E-04	1.17E-04	7.43E-05	2.84E-03	4.61E-05	3.80E-05
MEAT								
ADULT	5.74E-06	4.03E-06	2.55E-06	6.78E-06	5.45E-06	2.75E-04	3.40E-06	3.08E-06
TEEN	3.19E-06	2.37E-06	2.05E-06	4.80E-06	3.75E-06	1.99E-04	2.13E-06	1.84E-06
CHILD	3.37E-06	2.51E-06	3.68E-06	6.05E-06	4.63E-06	3.00E-04	2.56E-06	2.22E-06
INHAL								
ADULT	1.33E-05	1.24E-05	2.24E-06	1.40E-05	1.47E-05	5.12E-04	1.36E-05	1.19E-05
TEEN	1.35E-05	1.24E-05	2.90E-06	1.49E-05	1.58E-05	6.26E-04	1.46E-05	1.20E-05
CHILD	1.19E-05	1.08E-05	3.58E-06	1.34E-05	1.42E-05	6.93E-04	1.28E-05	1.06E-05
INFANT	6.98E-06	6.16E-06	2.39E-06	8.55E-06	8.43E-06	6.29E-04	7.83E-06	6.08E-06

TABLE VII-A-2

FORT CALHOUN 1 RECEPTORS IN ALL SECTORS 8-14-80
SPECIAL LOCATION # 3 VEG,RES
AT 1.52 MILES NE

SEMI-ANNUAL BETA AIR DOSE = 5.80E-03 MILLRADS
SEMI-ANNUAL GAMMA AIR DOSE = 2.05E-03 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	1.21E-03	1.21E-03	1.21E-03	1.21E-03	1.21E-03	1.21E-03	1.27E-03	3.44E-03
GROUND	6.45E-05	6.45E-05	6.45E-05	6.45E-05	6.45E-05	6.45E-05	6.45E-05	7.55E-05
VEGET								
ADULT	8.63E-05	4.13E-05	7.32E-05	9.91E-05	7.25E-05	4.37E-03	3.78E-05	3.19E-05
TEEN	8.58E-05	4.50E-05	9.90E-05	1.31E-04	8.50E-05	3.64E-03	4.70E-05	3.65E-05
CHILD	1.07E-04	6.22E-05	2.01E-04	2.09E-04	1.27E-04	5.51E-03	7.21E-05	5.66E-05
INHAL								
ADULT	1.97E-05	1.84E-05	3.31E-06	2.09E-05	2.18E-05	7.60E-04	2.02E-05	1.77E-05
TEEN	2.00E-05	1.85E-05	4.29E-06	2.21E-05	2.35E-05	9.30E-04	2.17E-05	1.78E-05
CHILD	1.77E-05	1.60E-05	5.29E-06	1.99E-05	2.11E-05	1.03E-03	1.90E-05	1.57E-05
INFANT	1.04E-05	9.16E-06	3.54E-06	1.27E-05	1.25E-05	9.34E-04	1.16E-05	9.04E-06

TABLE VII-A-3

FORT CALHOUN 1 RECEPTORS IN ALL SECTORS 8-14-80
SPECIAL LOCATION # 4 VEG,RES
AT 4.75 MILES ENE

SEMI-ANNUAL BETA AIR DOSE = 4.77E-04 MILLRADS
SEMI-ANNUAL GAMMA AIR DOSE = 1.62E-04 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	9.50E-05	9.50E-05	9.50E-05	9.50E-05	9.50E-05	9.50E-05	9.97E-05	2.75E-04
GROUND	2.98E-06	2.98E-06	2.98E-06	2.98E-06	2.98E-06	2.98E-06	2.98E-06	3.49E-06
VEGET								
ADULT	5.18E-06	3.10E-06	3.38E-06	5.77E-06	4.54E-06	2.02E-04	2.94E-06	2.67E-06
TEEN	5.33E-06	3.44E-06	4.57E-06	7.44E-06	5.29E-06	1.68E-04	3.54E-06	3.05E-06
CHILD	7.04E-06	4.99E-06	9.27E-06	1.18E-05	7.98E-06	2.55E-04	5.45E-06	4.73E-06
INHAL								
ADULT	1.64E-06	1.53E-06	2.60E-07	1.73E-06	1.81E-06	6.10E-05	1.68E-06	1.48E-06
TEEN	1.67E-06	1.54E-06	3.38E-07	1.83E-06	1.94E-06	7.46E-05	1.79E-06	1.49E-06
CHILD	1.47E-06	1.34E-06	4.17E-07	1.65E-06	1.74E-06	8.25E-05	1.57E-06	1.32E-06
INFANT	8.63E-07	7.65E-07	2.80E-07	1.05E-06	1.03E-06	7.50E-05	9.54E-07	7.56E-07

TABLE VII-A-4

FORT CALHOUN 1 RECEPTORS IN ALL SECTORS 8-14-80
SPECIAL LOCATION # 5 RES
AT 4.68 MILES E

SEMI-ANNUAL BETA AIR DOSE = 4.74E-04 MILLRADS
SEMI-ANNUAL GAMMA AIR DOSE = 1.59E-04 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	9.32E-05	9.32E-05	9.32E-05	9.32E-05	9.32E-05	9.32E-05	9.80E-05	2.72E-04
GROUND	2.46E-06	2.46E-06	2.46E-06	2.46E-06	2.46E-06	2.46E-06	2.46E-06	2.88E-06
INHAL								
ADULT	1.64E-06	1.53E-06	2.60E-07	1.73E-06	1.81E-06	6.09E-05	1.68E-06	1.48E-06
TEEN	1.67E-06	1.54E-06	3.38E-07	1.83E-06	1.94E-06	7.45E-05	1.79E-06	1.49E-06
CHILD	1.47E-06	1.34E-06	4.17E-07	1.65E-06	1.74E-06	8.24E-05	1.57E-06	1.32E-06
INFANT	8.63E-07	7.65E-07	2.80E-07	1.05E-06	1.03E-06	7.48E-05	9.54E-07	7.56E-07

TABLE VII-A-5

FORT CALHOUN 1 RECEPTORS IN ALL SECTORS 8-14-80
SPECIAL LOCATION # 6 VEG,RES
AT 4.20 MILES ESE

SEMI-ANNUAL BETA AIR DOSE = 6.33E-04 MILLRADS
SEMI-ANNUAL GAMMA AIR DOSE = 2.24E-04 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	1.32E-04	1.32E-04	1.32E-04	1.32E-04	1.32E-04	1.32E-04	1.38E-04	3.75E-04
GROUND	3.31E-06	3.31E-06	3.31E-06	3.31E-06	3.31E-06	3.31E-06	3.31E-06	3.87E-06
VEGET								
ADULT	6.27E-06	3.96E-06	3.76E-06	6.93E-06	5.57E-06	2.26E-04	3.78E-06	3.48E-06
TEEN	6.51E-06	4.42E-06	5.08E-06	8.86E-06	6.48E-06	1.89E-04	4.52E-06	3.[illegible]E-06
CHILD	8.74E-06	6.46E-06	1.03E-05	1.40E-05	9.79E-06	2.86E-04	6.97E-06	6.17E-06
INHAL								
ADULT	2.15E-06	2.00E-06	3.47E-07	2.26E-06	2.37E-06	8.10E-05	2.19E-06	1.93E-06
TEEN	2.18E-06	2.01E-06	4.50E-07	2.40E-06	2.55E-06	9.91E-05	2.35E-06	1.94E-06
CHILD	1.93E-06	1.75E-06	5.56E-07	2.16E-06	2.28E-06	1.10E-04	2.06E-06	1.72E-06
INFANT	1.13E-06	9.98E-07	3.73E-07	1.37E-06	1.36E-06	9.95E-05	1.25E-06	9.86E-07

TABLE VII-A-6

FORT CALHOUN 1 RECEPTORS IN ALL SECTORS 8-14-80
SPECIAL LOCATION # 7 VEG.RES
AT 1.66 MILES SE

SEMI-ANNUAL BETA AIR DOSE = 5.80E-03 MILLRADS
SEMI-ANNUAL GAMMA AIR DOSE = 2.05E-03 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	1.21E-03	1.21E-03	1.21E-03	1.21E-03	1.21E-03	1.21E-03	1.27E-03	3.44E-03
GROUND	4.36E-05	4.36E-05	4.36E-05	4.36E-05	4.36E-05	4.36E-05	4.36E-05	5.10E-05
VEGET								
ADULT	6.87E-05	3.82E-05	4.95E-05	7.73E-05	5.93E-05	2.97E-03	3.59E-05	3.19E-05
TEEN	6.98E-05	4.22E-05	6.69E-05	1.01E-04	6.93E-05	2.47E-03	4.36E-05	3.65E-05
CHILD	9.03E-05	6.03E-05	1.36E-04	1.60E-04	1.04E-04	3.74E-03	6.71E-05	5.66E-05
INHAL								
ADULT	1.98E-05	1.84E-05	3.36E-06	2.09E-05	2.19E-05	7.67E-04	2.03E-05	1.77E-05
TEEN	2.01E-05	1.85E-05	4.36E-06	2.22E-05	2.36E-05	9.39E-04	2.18E-05	1.78E-05
CHILD	1.78E-05	1.60E-05	5.37E-06	2.00E-05	2.11E-05	1.04E-03	1.91E-05	1.57E-05
INFANT	1.04E-05	9.16E-06	3.59E-06	1.27E-05	1.26E-05	9.44E-04	1.17E-05	9.04E-06

FORT CALHOUN 1 RECEPTORS IN ALL SECTORS 8-14-80
SPECIAL LOCATION # 8 PORK
AT 1.97 MILES SE

SEMI-ANNUAL BETA AIR DOSE = 4.06E-03 MILLRADS
SEMI-ANNUAL GAMMA AIR DOSE = 1.43E-03 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	8.48E-04	8.48E-04	8.48E-04	8.48E-04	8.48E-04	8.48E-04	8.88E-04	2.41E-03
MEAT								
ADULT	5.44E-06	4.01E-06	2.14E-06	6.31E-06	5.20E-06	2.32E-04	3.47E-06	3.21E-06
TEEN	3.05E-06	2.36E-06	1.72E-06	4.40E-06	3.52E-06	1.68E-04	2.16E-06	1.91E-06
CHILD	3.28E-06	2.55E-06	3.09E-06	5.53E-06	4.33E-06	2.53E-04	2.59E-06	2.31E-06

TABLE VII-A-7

FORT CALHOUN 1 RECEPTORS IN ALL SECTORS 8-14-80
SPECIAL LOCATION # 9 VEG,RES
AT 0.90 MILES SSE

SEMI-ANNUAL BETA AIR DOSE = 2.96E-02 MILLRADS
SEMI-ANNUAL GAMMA AIR DOSE = 1.01E-02 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	5.93E-03	5.93E-03	5.93E-03	5.93E-03	5.93E-03	5.93E-03	6.23E-03	1.71E-02
GROUND	3.85E-04	3.85E-04	3.85E-04	3.85E-04	3.85E-04	3.85E-04	3.85E-04	4.51E-04
VEGET								
ADULT	4.90E-04	2.21E-04	4.37E-04	5.67E-04	4.07E-04	2.60E-02	2.01E-04	1.65E-04
TEEN	4.83E-04	2.40E-04	5.91E-04	7.56E-04	4.79E-04	2.16E-02	2.52E-04	1.89E-04
CHILD	5.91E-04	3.26E-04	1.20E-03	1.20E-03	7.13E-04	3.27E-02	3.86E-04	2.93E-04
INHAL								
ADULT	1.03E-04	9.53E-05	1.81E-05	1.09E-04	1.14E-04	4.05E-03	1.06E-04	9.16E-05
TEEN	1.04E-04	9.60E-05	2.34E-05	1.16E-04	1.23E-04	4.96E-03	1.14E-04	9.21E-05
CHILD	9.22E-05	8.32E-05	2.88E-05	1.04E-04	1.10E-04	5.48E-03	9.98E-05	8.15E-05
INFANT	5.40E-05	4.75E-05	1.92E-05	6.65E-05	6.55E-05	4.98E-03	6.12E-05	4.69E-05

TABLE VII-A-8

FORT CALHOUN 1 RECEPTORS IN ALL SECTORS 8-14-80
SPECIAL LOCATION # 10 PORK
AT 1.11 MILES SSE

SEMI-ANNUAL BETA AIR DOSE = 1.81E-02 MILLRADS
SEMI-ANNUAL GAMMA AIR DOSE = 6.08E-03 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	3.57E-03	3.57E-03	3.57E-03	3.57E-03	3.57E-03	3.57E-03	3.75E-03	1.04E-02
MEAT								
ADULT	3.14E-05	2.06E-05	1.61E-05	3.80E-05	2.95E-05	1.73E-03	1.66E-05	1.46E-05
TEEN	1.73E-05	1.21E-05	1.30E-05	2.75E-05	2.08E-05	1.25E-03	1.05E-05	8.70E-06
CHILD	1.78E-05	1.23E-05	2.33E-05	3.48E-05	2.57E-05	1.89E-03	1.26E-05	1.05E-05

FORT CALHOUN 1 RECEPTORS IN ALL SECTORS 8-14-80
SPECIAL LOCATION # 14 COW
AT 2.77 MILES SSE

SEMI-ANNUAL BETA AIR DOSE = 2.49E-03 MILLRADS
SEMI-ANNUAL GAMMA AIR DOSE = 8.45E-04 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	4.96E-04	4.96E-04	4.96E-04	4.96E-04	4.96E-04	4.96E-04	5.21E-04	1.44E-03
COW MILK								
ADULT	1.70E-05	6.91E-06	1.21E-05	2.31E-05	2.08E-05	2.37E-03	5.93E-06	4.70E-06
TEEN	2.09E-05	9.05E-06	2.17E-05	3.84E-05	3.46E-05	3.75E-03	8.60E-06	6.12E-06
CHILD	2.83E-05	1.19E-05	5.16E-05	6.47E-05	5.68E-05	7.41E-03	1.34E-05	9.67E-06
INFANT	4.42E-05	1.69E-05	9.30E-05	1.31E-04	9.50E-05	1.80E-02	2.13E-05	1.47E-05

TABLE VII-A-8
Continued

FORT CALHOUN 1 RECEPTORS IN ALL SECTORS 8-14-80
SPECIAL LOCATION # 11 VEG,RES
AT 0.80 MILES S

SEMI-ANNUAL BETA AIR DOSE = 1.58E-01 MILLRADS
SEMI-ANNUAL GAMMA AIR DOSE = 5.59E-02 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	3.30E-02	3.30E-02	3.30E-02	3.30E-02	3.30E-02	3.30E-02	3.46E-02	9.37E-02
GROUND	1.92E-03	1.92E-03	1.92E-03	1.92E-03	1.92E-03	1.92E-03	1.92E-03	2.24E-03
VEGET								
ADULT	2.49E-03	1.15E-03	2.18E-03	2.87E-03	2.08E-03	1.30E-01	1.05E-03	8.70E-04
TEEN	2.46E-03	1.25E-03	2.94E-03	3.82E-03	2.44E-03	1.08E-01	1.31E-03	9.96E-04
CHILD	3.03E-03	1.71E-03	5.96E-03	6.08E-03	3.64E-03	1.64E-01	2.01E-03	1.54E-03
INHAL								
ADULT	5.41E-04	5.02E-04	9.42E-05	5.72E-04	5.99E-04	2.13E-02	5.56E-04	4.82E-04
TEEN	5.49E-04	5.05E-04	1.22E-04	6.08E-04	6.45E-04	2.60E-02	5.98E-04	4.85E-04
CHILD	4.85E-04	4.38E-04	1.50E-04	5.48E-04	5.79E-04	2.88E-02	5.24E-04	4.29E-04
INFANT	2.84E-04	2.50E-04	1.00E-04	3.50E-04	3.44E-04	2.62E-02	3.21E-04	2.47E-04

TABLE VII-A-9

FORT CALHOUN 1 RECEPTORS IN ALL SECTORS 8-14-80
SPECIAL LOCATION # 12 PORK
AT 0.97 MILES S

SEMI-ANNUAL BETA AIR DOSE = 9.49E-02 MILLRADS
SEMI-ANNUAL GAMMA AIR DOSE = 3.35E-02 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	1.98E-02	1.98E-02	1.98E-02	1.98E-02	1.98E-02	1.98E-02	2.08E-02	5.62E-02
MEAT								
ADULT	1.64E-04	1.07E-04	8.55E-05	1.99E-04	1.55E-04	9.23E-03	8.55E-05	7.50E-05
TEEN	9.03E-05	6.26E-05	6.90E-05	1.44E-04	1.09E-04	6.68E-03	5.44E-05	4.47E-05
CHILD	9.27E-05	6.37E-05	1.23E-04	1.83E-04	1.35E-04	1.01E-02	6.52E-05	5.41E-05

FORT CALHOUN 1 RECEPTORS IN ALL SECTORS 8-14-80
SPECIAL LOCATION # 13 COW
AT 2.77 MILES S

SEMI-ANNUAL BETA AIR DOSE = 9.49E-03 MILLRADS
SEMI-ANNUAL GAMMA AIR DOSE = 3.35E-03 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	1.98E-03	1.98E-03	1.98E-03	1.98E-03	1.98E-03	1.98E-03	2.08E-03	5.62E-03
COW MILK								
ADULT	6.37E-05	2.59E-05	4.53E-05	8.63E-05	7.79E-05	8.90E-03	2.22E-05	1.76E-05
TEEN	7.82E-05	3.39E-05	8.10E-05	1.44E-04	1.30E-04	1.41E-02	3.22E-	2.29E-05
CHILD	1.06E-04	4.48E-05	1.93E-04	2.42E-04	2.13E-04	2.78E-02	5.02E-05	3.63E-05
INFANT	1.66E-04	6.33E-05	3.48E-04	4.92E-04	3.56E-04	6.75E-02	7.99E-05	5.50E-05

TABLE VII-A-9
Continued

FORT CALHOUN 1 RECEPTORS IN ALL SECTORS 8-14-80
SPECIAL LOCATION # 14 VEG,RES
AT 0.64 MILES SSW

SEMI-ANNUAL BETA AIR DOSE = 4.85E-02 MILLRADS
SEMI-ANNUAL GAMMA AIR DOSE = 1.71E-02 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	1.01E-02	1.01E-02	1.01E-02	1.01E-02	1.01E-02	1.01E-02	1.06E-02	2.87E-02
GROUND	1.13E-03	1.13E-03	1.13E-03	1.13E-03	1.13E-03	1.13E-03	1.13E-03	1.33E-03
VEGET								
ADULT	1.22E-03	4.31E-04	1.29E-03	1.45E-03	9.80E-04	7.65E-02	3.71E-04	2.67E-04
TEEN	1.17E-03	4.54E-04	1.74E-03	1.97E-03	1.16E-03	6.36E-02	4.90E-04	3.05E-04
CHILD	1.35E-03	5.71E-04	3.52E-03	3.15E-03	1.71E-03	9.63E-02	7.47E-04	4.73E-04
INHAL								
ADULT	1.66E-04	1.54E-04	2.98E-05	1.76E-04	1.84E-04	6.64E-03	1.71E-04	1.48E-04
TEEN	1.69E-04	1.55E-04	3.85E-05	1.88E-04	1.99E-04	8.13E-03	1.85E-04	1.49E-04
CHILD	1.49E-04	1.34E-04	4.74E-05	1.69E-04	1.78E-04	8.99E-03	1.62E-04	1.32E-04
INFANT	8.73E-05	7.66E-05	3.15E-05	1.08E-04	1.06E-04	8.17E-03	9.93E-05	7.56E-05

FORT CALHOUN 1 RECEPTORS IN ALL SECTORS 8-14-80
SPECIAL LOCATION # 15 COW,BEEF
AT 0.65 MILES SSW

SEMI-ANNUAL BETA AIR DOSE = 4.69E-02 MILLRADS
SEMI-ANNUAL GAMMA AIR DOSE = 1.66E-02 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	9.80E-03	9.80E-03	9.80E-03	9.80E-03	9.80E-03	9.80E-03	1.03E-02	2.78E-02
MEAT								
ADULT	1.25E-04	6.85E-05	8.42E-05	1.59E-04	1.15E-04	9.05E-03	4.74E-05	3.71E-05
TEEN	6.69E-05	3.97E-05	6.79E-05	1.20E-04	8.54E-05	6.55E-03	3.17E-05	2.21E-05
CHILD	6.48E-05	3.63E-05	1.22E-04	1.53E-04	1.06E-04	9.88E-03	3.77E-05	2.67E-05
COW MILK								
ADULT	7.32E-04	2.03E-04	6.35E-04	1.05E-03	9.31E-04	1.24E-01	1.51E-04	8.71E-05
TEEN	8.87E-04	2.67E-04	1.13E-03	1.80E-03	1.61E-03	1.97E-01	2.43E-04	1.13E-04
CHILD	1.16E-03	2.99E-04	2.70E-03	3.06E-03	2.65E-03	3.89E-01	3.75E-04	1.79E-04
INFANT	1.82E-03	3.89E-04	4.87E-03	6.38E-03	4.48E-03	9.44E-01	6.20E-04	2.72E-04

TABLE VII-A-10

FORT CALHOUN 1 RECEPTORS IN ALL SECTORS 8-14-80
SPECIAL LOCATION # 16 RES
AT 0.74 MILES SW

SEMI-ANNUAL BETA AIR DOSE = 1.79E-02 MILLRADS
SEMI-ANNUAL GAMMA AIR DOSE = 6.33E-03 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	3.74E-03	3.74E-03	3.74E-03	3.74E-03	3.74E-03	3.74E-03	3.92E-03	1.06E-02
GROUND	2.79E-04	2.79E-04	2.79E-04	2.79E-04	2.79E-04	2.79E-04	2.79E-04	3.26E-04
INHAL								
ADULT	6.15E-05	5.69E-05	1.11E-05	6.52E-05	6.22E-05	2.47E-03	6.35E-05	5.46E-05
TEEN	6.25E-05	5.73E-05	1.43E-05	6.94E-05	7.36E-05	3.02E-03	6.65E-05	5.50E-05
CHILD	5.52E-05	4.96E-05	1.76E-05	6.26E-05	6.60E-05	3.34E-03	5.99E-05	4.86E-05
INFANT	3.23E-05	2.83E-05	1.17E-05	4.00E-05	3.93E-05	3.04E-03	3.68E-05	2.79E-05

FORT CALHOUN 1 RECEPTORS IN ALL SECTORS 8-14-80
SPECIAL LOCATION # 1 VEG
AT 0.84 MILES SW

SEMI-ANNUAL BETA AIR DOSE = 1.37E-02 MILLRADS
SEMI-ANNUAL GAMMA AIR DOSE = 4.84E-03 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	2.86E-03	2.86E-03	2.86E-03	2.86E-03	2.86E-03	2.86E-03	3.00E-03	8.12E-03
VEGET								
ADULT	2.52E-04	1.06E-04	2.38E-04	2.93E-04	2.07E-04	1.42E-02	9.47E-05	7.54E-05
TEEN	2.46E-04	1.14E-04	3.21E-04	3.94E-04	2.44E-04	1.18E-02	1.20E-04	8.63E-05
CHILD	2.96E-04	1.52E-04	6.51E-04	6.28E-04	3.62E-04	1.78E-02	1.84E-04	1.34E-04

TABLE VII-A-11

FORT CALHOUN 1 RECEPTORS IN ALL SECTORS 8-14-80
SPECIAL LOCATION # 2 COW,BEEF
AT 1.66 MILES SW

SEMI-ANNUAL BETA AIR DOSE = 2.69E-03 MILLRADS
SEMI-ANNUAL GAMMA AIR DOSE = 9.50E-04 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	5.62E-04	5.62E-04	5.62E-04	5.62E-04	5.62E-04	5.62E-04	5.88E-04	1.59E-03
MEAT								
ADULT	4.92E-06	3.12E-06	2.67E-06	6.00E-06	4.61E-06	2.88E-04	2.45E-06	2.13E-06
TEEN	2.69E-06	1.83E-06	2.16E-06	4.38E-06	3.28E-06	2.09E-04	1.57E-06	1.27E-06
CHILD	2.74E-06	1.83E-06	3.86E-06	5.55E-06	4.06E-06	3.14E-04	1.88E-06	1.53E-06
COW MILK								
ADULT	2.55E-05	8.68E-06	2.01E-05	3.55E-05	3.18E-05	3.95E-03	7.03E-06	4.99E-06
TEEN	3.10E-05	1.14E-05	3.60E-05	6.01E-05	5.40E-05	6.25E-03	1.06E-05	6.50E-06
CHILD	4.13E-05	1.41E-05	8.57E-05	1.02E-04	8.88E-05	1.23E-02	1.65E-05	1.03E-05
INFANT	6.47E-05	1.93E-05	1.55E-04	2.10E-04	1.49E-04	3.00E-02	2.66E-05	1.56E-05

TABLE VII-A-11
Continued

FORT CALHOUN 1 RECEPTORS IN ALL SECTORS 8-14-80
SPECIAL LOCATION # 3 RES
AT 1.10 MILES WSW

SEMI-ANNUAL BETA AIR DOSE = 5.80E-03 MILLRADS
SEMI-ANNUAL GAMMA AIR DOSE = 2.05E-03 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	1.21E-03	1.21E-03	1.21E-03	1.21E-03	1.21E-03	1.21E-03	1.27E-03	3.44E-03
GROUND	9.06E-05	9.06E-05	9.06E-05	9.06E-05	9.06E-05	9.06E-05	9.06E-05	1.06E-04
INHAL								
ADULT	1.99E-05	1.84E-05	3.53E-06	2.10E-05	2.20E-05	7.90E-04	2.05E-05	1.77E-05
TEEN	2.02E-05	1.85E-05	4.56E-06	2.24E-05	2.37E-05	9.66E-04	2.21E-05	1.78E-05
CHILD	1.78E-05	1.61E-05	5.62E-06	2.02E-05	2.13E-05	1.07E-03	1.93E-05	1.57E-05
INFANT	1.04E-05	9.16E-06	3.74E-06	1.29E-05	1.27E-05	9.72E-04	1.18E-05	9.04E-06

FORT CALHOUN 1 RECEPTORS IN ALL SECTORS 8-14-80
SPECIAL LOCATION # 5 COW
AT 4.12 MILES WSW

SEMI-ANNUAL BETA AIR DOSE = 3.33E-04 MILLRADS
SEMI-ANNUAL GAMMA AIR DOSE = 1.14E-04 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	6.69E-05	6.69E-05	6.69E-05	6.69E-05	6.69E-05	6.69E-05	7.02E-05	1.93E-04
COW MILK								
ADULT	2.68E-06	9.95E-07	2.02E-06	3.68E-06	3.31E-06	3.95E-04	8.31E-07	6.26E-07
TEEN	3.28E-06	1.30E-06	3.61E-06	6.19E-06	5.57E-06	6.25E-04	1.23E-06	8.16E-07
CHILD	4.40E-06	1.67E-06	8.60E-06	1.04E-05	9.15E-06	1.23E-03	1.91E-06	1.29E-06
INFANT	6.87E-06	2.33E-06	1.55E-05	2.14E-05	1.53E-05	3.00E-03	3.07E-06	1.96E-06

TABLE VII-A-12

FORT CALHOUN 1 RECEPTORS IN ALL SECTORS 8-14-80
SPECIAL LOCATION # 4 BEEF,VEG
AT 2.45 MILES WS#

SEMI-ANNUAL BETA AIR DOSE = 9.49E-04 MILLRADS
SEMI-ANNUAL GAMMA AIR DOSE = 3.35E-04 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	1.98E-04	1.98E-04	1.98E-04	1.98E-04	1.98E-04	1.98E-04	2.08E-04	5.62E-04
VEGET								
ADULT	1.49E-05	6.89E-06	1.31E-05	1.72E-05	1.25E-05	7.80E-04	6.28E-06	5.22E-06
TEEN	1.48E-05	7.48E-06	1.77E-05	2.29E-05	1.46E-05	6.48E-04	7.85E-06	5.98E-06
CHILD	1.82E-05	1.03E-05	3.58E-05	3.65E-05	2.18E-05	9.82E-04	1.20E-05	9.26E-06
MEAT								
ADULT	1.67E-06	1.08E-06	8.82E-07	2.03E-06	1.57E-06	9.52E-05	8.58E-07	7.50E-07
TEEN	9.17E-07	6.32E-07	7.11E-07	1.47E-06	1.11E-06	6.89E-05	5.47E-07	4.47E-07
CHILD	9.39E-07	6.40E-07	1.27E-06	1.87E-06	1.37E-06	1.04E-04	6.56E-07	5.41E-07

TABLE VII-A-12
Continued

FORT CALHOUN 1 RECEPTORS IN ALL SECTORS 8-14-80
SPECIAL LOCATION # 6 VEG,RES
AT 1.20 MILES W

SEMI-ANNUAL BETA AIR DOSE = 4.59E-03 MILLRADS
SEMI-ANNUAL GAMMA AIR DOSE = 1.62E-03 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	9.58E-04	9.58E-04	9.58E-04	9.58E-04	9.58E-04	9.58E-04	1.00E-03	2.72E-03
GROUND	6.10E-05	6.10E-05	6.10E-05	6.10E-05	6.10E-05	6.10E-05	6.10E-05	7.14E-05
VEGET								
ADULT	7.67E-05	3.41E-05	6.93E-05	8.88E-05	6.37E-05	4.13E-03	3.08E-05	2.52E-05
TEEN	7.55E-05	3.69E-05	9.36E-05	1.19E-04	7.48E-05	3.43E-03	3.88E-05	2.89E-05
CHILD	9.20E-05	5.00E-05	1.90E-04	1.89E-04	1.11E-04	5.20E-03	5.95E-05	4.47E-05
INHAL								
ADULT	1.57E-05	1.45E-05	2.72E-06	1.66E-05	1.74E-05	6.15E-04	1.61E-05	1.40E-05
TEEN	1.59E-05	1.46E-05	3.52E-06	1.76E-05	1.87E-05	7.53E-04	1.73E-05	1.41E-05
CHILD	1.41E-05	1.27E-05	4.34E-06	1.59E-05	1.68E-05	8.33E-04	1.52E-05	1.24E-05
INFANT	8.23E-06	7.24E-06	2.89E-06	1.01E-05	9.98E-06	7.57E-04	9.29E-06	7.15E-06

FORT CALHOUN 1 RECEPTORS IN ALL SECTORS 8-14-80
SPECIAL LOCATION # 7 PORK
AT 1.23 MILES W

SEMI-ANNUAL BETA AIR DOSE = 4.38E-03 MILLRADS
SEMI-ANNUAL GAMMA AIR DOSE = 1.55E-03 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	9.14E-04	9.14E-04	9.14E-04	9.14E-04	9.14E-04	9.14E-04	9.57E-04	2.59E-03
MEAT								
ADULT	8.06E-06	5.10E-06	4.41E-06	9.86E-06	7.56E-06	4.76E-04	4.00E-06	3.46E-06
TEEN	4.41E-06	2.99E-06	3.56E-06	7.19E-06	5.38E-06	3.44E-04	2.56E-06	2.06E-06
CHILD	4.48E-06	2.99E-06	6.37E-06	9.13E-06	6.66E-06	5.19E-04	3.07E-06	2.49E-06

TABLE VII-A-13

FORT CALHOUN 1 RECEPTORS IN ALL SECTORS 8-14-80
SPECIAL LOCATION # 8 BEEF,VEG,RES,PRK
AT 2.03 MILES WNW

SEMI-ANNUAL BETA AIR DOSE = 2.02E-03 MILLRADS
SEMI-ANNUAL GAMMA AIR DOSE = 6.81E-04 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	4.00E-04	4.00E-04	4.00E-04	4.00E-04	4.00E-04	4.00E-04	4.20E-04	1.16E-03
GROUND	1.93E-05	1.93E-05	1.93E-05	1.93E-05	1.93E-05	1.93E-05	1.93E-05	2.26E-05
VEGET								
ADULT	2.76E-05	1.41E-05	2.19E-05	3.14E-05	2.34E-05	1.30E-03	1.31E-05	1.13E-05
TEEN	2.77E-05	1.55E-05	2.96E-05	4.14E-05	2.74E-05	1.08E-03	1.61E-05	1.29E-05
CHILD	3.50E-05	2.17E-05	6.00E-05	6.57E-05	4.11E-05	1.64E-03	2.47E-05	2.01E-05
MEAT								
ADULT	3.17E-06	2.18E-06	1.48E-06	3.77E-06	3.00E-06	1.59E-04	1.81E-06	1.63E-06
TEEN	1.76E-06	1.28E-06	1.19E-06	2.69E-06	2.08E-06	1.15E-04	1.14E-06	9.70E-07
CHILD	1.84E-06	1.34E-06	2.13E-06	3.40E-06	2.56E-06	1.73E-04	1.36E-06	1.17E-06
INHAL								
ADULT	7.00E-06	6.51E-06	1.18E-06	7.40E-06	7.74E-06	2.69E-04	7.18E-06	6.26E-06
TEEN	7.11E-06	6.56E-06	1.53E-06	7.85E-06	8.32E-06	3.29E-04	7.71E-06	6.30E-06
CHILD	6.28E-06	5.68E-06	1.88E-06	7.07E-06	7.46E-06	3.64E-04	6.75E-06	5.57E-06
INFANT	3.68E-06	3.25E-06	1.26E-06	4.50E-06	4.44E-06	3.30E-04	4.12E-06	3.21E-06

TABLE VII-A-14

FORT CALHOUN 1 RECEPTORS IN ALL SECTORS 8-14-80
SPECIAL LOCATION # 9 VEG,RES
AT 2.58 MILES NW

SEMI-ANNUAL BETA AIR DOSE = 2.23E-03 MILLRADS
SEMI-ANNUAL GAMMA AIR DOSE = 7.54E-04 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	4.43E-04	4.43E-04	4.43E-04	4.43E-04	4.43E-04	4.43E-04	4.65E-04	1.28E-03
GROUND	1.51E-05	1.51E-05	1.51E-05	1.51E-05	1.51E-05	1.51E-05	1.51E-05	1.77E-05
VEGET								
ADULT	2.52E-05	1.47E-05	1.71E-05	2.82E-05	2.19E-05	1.02E-03	1.39E-05	1.25E-05
TEEN	2.58E-05	1.62E-05	2.31E-05	3.65E-05	2.56E-05	8.51E-04	1.67E-05	1.43E-05
CHILD	3.38E-05	2.34E-05	4.69E-05	5.78E-05	3.86E-05	1.29E-03	2.58E-05	2.21E-05
INHAL								
ADULT	7.72E-06	7.18E-06	1.29E-06	8.15E-06	8.53E-06	2.95E-04	7.91E-06	6.91E-06
TEEN	7.83E-06	7.23E-06	1.67E-06	8.65E-06	9.17E-06	3.61E-04	8.49E-06	6.95E-06
CHILD	6.93E-06	6.27E-06	2.06E-06	7.79E-06	8.22E-06	4.00E-04	7.43E-06	6.15E-06
INFANT	4.05E-06	3.58E-06	1.38E-06	4.96E-06	4.89E-06	3.63E-04	4.54E-06	3.53E-06

FORT CALHOUN 1 RECEPTORS IN ALL SECTORS 8-14-80
SPECIAL LOCATION # 10 COW,PORK
AT 3.50 MILES NW

SEMI-ANNUAL BETA AIR DOSE = 1.27E-03 MILLRADS
SEMI-ANNUAL GAMMA AIR DOSE = 4.47E-04 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	2.64E-04	2.64E-04	2.64E-04	2.64E-04	2.64E-04	2.64E-04	2.77E-04	7.50E-04
MEAT								
ADULT	1.59E-06	1.21E-06	5.61E-07	1.81E-06	1.52E-06	6.11E-05	1.07E-06	1.00E-06
TEEN	8.95E-07	7.14E-07	4.53E-07	1.25E-06	1.02E-06	4.41E-05	6.60E-07	5.97E-07
CHILD	9.74E-07	7.84E-07	8.10E-07	1.57E-06	1.25E-06	6.64E-05	7.94E-07	7.21E-07
COW MILK								
ADULT	6.65E-06	3.12E-06	4.23E-06	8.75E-06	7.98E-06	8.31E-04	2.78E-06	2.35E-06
TEEN	8.21E-06	4.08E-06	7.56E-06	1.43E-05	1.30E-05	1.31E-03	3.92E-06	3.06E-06
CHILD	1.13E-05	5.63E-06	1.80E-05	2.40E-05	2.13E-05	2.59E-03	6.14E-06	4.83E-06
INFANT	1.76E-05	8.11E-06	3.24E-05	4.81E-05	3.54E-05	6.30E-03	9.65E-06	7.33E-06

TABLE VII-A-15

FORT CALHOUN 1 RECEPTORS IN ALL SECTORS 8-14-80
SPECIAL LOCATION # 11 VEG,RES
AT 2.05 MILES NNW

SEMI-ANNUAL BETA AIR DOSE = 3.12E-03 MILLRADS
SEMI-ANNUAL GAMMA AIR DOSE = 1.06E-03 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	6.26E-04	6.26E-04	6.26E-04	6.26E-04	6.26E-04	6.26E-04	6.57E-04	1.81E-03
GROUND	2.80E-05	2.80E-05	2.80E-05	2.80E-05	2.80E-05	2.80E-05	2.80E-05	3.28E-05
VEGET								
ADULT	4.10E-05	2.15E-05	3.18E-05	4.66E-05	3.50E-05	1.89E-03	2.00E-05	1.74E-05
TEEN	4.13E-05	2.36E-05	4.30E-05	6.11E-05	4.10E-05	1.58E-03	2.45E-05	1.99E-05
CHILD	5.25E-05	3.33E-05	8.71E-05	9.71E-05	6.14E-05	2.39E-03	3.76E-05	3.09E-05
INHAL								
ADULT	1.08E-05	1.00E-05	1.83E-06	1.14E-05	1.19E-05	4.17E-04	1.11E-05	9.64E-06
TEEN	1.09E-05	1.01E-05	2.37E-06	1.21E-05	1.28E-05	5.10E-04	1.19E-05	9.70E-06
CHILD	9.68E-06	8.75E-06	2.92E-06	1.09E-05	1.15E-05	5.64E-04	1.04E-05	8.58E-06
INFANT	5.66E-06	4.99E-06	1.95E-06	6.94E-06	6.85E-06	5.13E-04	6.36E-06	4.93E-06

VII-27

FORT CALHOUN 1 RECEPTORS IN ALL SECTORS 8-14-80
SPECIAL LOCATION # 12 BEEF
AT 2.28 MILES NNW

SEMI-ANNUAL BETA AIR DOSE = 2.48E-03 MILLRADS
SEMI-ANNUAL GAMMA AIR DOSE = 8.75E-04 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	5.17E-04	5.17E-04	5.17E-04	5.17E-04	5.17E-04	5.17E-04	5.42E-04	1.47E-03
MEAT								
ADULT	3.77E-06	2.61E-06	1.74E-06	4.48E-06	3.57E-06	1.88E-04	2.17E-06	1.96E-06
TEEN	2.09E-06	1.53E-06	1.40E-06	3.19E-06	2.47E-06	1.36E-04	1.37E-06	1.17E-06
CHILD	2.20E-06	1.61E-06	2.51E-06	4.03E-06	3.05E-06	2.05E-04	1.64E-06	1.41E-06

TABLE VII-A-16

FORT CALHOUN 1 SEMI-ANNUAL 1/80- 6/80 TRI-EX TOWER DATA 08-14-80
SEMI-ANNUAL ALARA INTEGRATED POPULATION DOSE SUMMARY (MANREM)

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	2.02E-02	2.02E-02	2.02E-02	2.02E-02	2.02E-02	2.02E-02	2.16E-02	7.23E-02
	91.23%	92.81%	93.10%	89.73%	90.26%	15.79%	93.25%	97.89%
GROUND	6.50E-04	6.50E-04	6.50E-04	6.50E-04	6.50E-04	6.50E-04	6.50E-04	7.61E-04
	2.94%	2.99%	3.00%	2.89%	2.91%	0.51%	2.80%	1.03%
INHAL	5.04E-04	4.71E-04	8.16E-05	5.36E-04	5.62E-04	1.91E-02	5.15E-04	4.58E-04
	2.28%	2.17%	0.38%	2.38%	2.51%	14.98%	2.22%	0.62%
VEGET	5.36E-04	3.05E-04	5.49E-04	7.39E-04	6.43E-04	5.80E-02	2.74E-04	2.37E-04
	2.43%	1.40%	2.53%	3.28%	2.88%	45.37%	1.18%	0.32%
COW MILK	1.59E-04	6.97E-05	1.70E-04	2.71E-04	2.30E-04	2.52E-02	6.97E-05	5.37E-05
	0.72%	0.32%	0.78%	1.20%	1.03%	19.76%	0.30%	0.07%
MEAT	9.14E-05	6.67E-05	4.60E-05	1.15E-04	9.29E-05	4.60E-03	5.88E-05	5.35E-05
	0.41%	0.31%	0.21%	0.51%	0.42%	3.60%	0.25%	0.07%
TOTAL	2.21E-02	2.17E-02	2.17E-02	2.25E-02	2.24E-02	1.28E-01	2.32E-02	7.39E-02

TABLE VII-B-1

FT. CALHOUN 1 SEMI-ANNUAL RELEASES FOR JAN 1980 TO JUN 1980 08-15-80

DISCHARGE=8.02E+02 CFS SOURCE TERM MULTIPLIER=1.00E+00

50-MILE POPULATION=8.36E+05 FRACTION --- ADULT=0.66
TEENAGER=0.14
CHILD=0.20

FRESHWATER SITE

FT. CALHOUN S. TERMS 1/80- 6/80

NO RECONCENTRATION OF NUCLIDES

* * * ADULT DOSE FACTORS * * *

			INGESTION DOSE FACTORS (MREM/PCI INTAKE)							SHORELINE (MREM/HR)/(PCI/M**2)		
NUCLIDE	CURIE/.SYR	BONE	LIVER	TOTAL BODY	THYROID	KIDNEY	LUNG	GI-LLI	SKIN	TOTAL BODY	RECON
38SR 89	3.58E-05	3.09E-04	0.0	8.85E-06	0.0	0.0	0.0	4.94E-05	6.50E-13	5.60E-13	1.00E+00
38SR 90	2.11E-04	7.61E-03	0.0	1.86E-03	0.0	0.0	0.0	1.02E-04	0.0	0.0	1.00E+00
27CO 57	6.76E-04	0.0	1.75E-07	2.91E-07	0.0	0.0	0.0	4.44E-06	1.00E-09	9.10E-10	1.00E+00
42MO 99	5.06E-04	0.0	4.31E-06	8.20E-07	0.0	9.77E-06	0.0	9.99E-06	2.20E-09	1.90E-09	1.00E+00
43TC 99M	2.46E-04	2.47E-10	6.98E-10	8.90E-09	0.0	1.06E-08	3.42E-10	4.13E-07	1.10E-09	9.60E-10	1.00E+00
58CE 141	9.05E-04	9.37E-09	6.34E-09	7.18E-10	0.0	2.94E-09	0.0	2.42E-05	6.20E-10	5.50E-10	1.00E+00
24CR 51	6.09E-03	0.0	0.0	2.66E-09	1.59E-09	5.87E-10	3.53E-09	6.69E-07	2.60E-10	2.20E-10	1.00E+00
53I 131	1.69E-02	4.16E-06	5.98E-06	3.41E-06	1.95E-03	1.02E-05	0.0	1.57E-06	3.40E-09	2.80E-09	1.00E+00
53I 133	1.49E-03	1.43E-06	2.48E-06	7.57E-07	4.77E-04	4.33E-06	0.0	2.18E-06	4.50E-09	3.70E-09	1.00E+00
56BA 140	1.55E-03	2.03E-05	2.55E-08	1.34E-06	0.0	8.68E-09	1.46E-08	4.18E-05	2.40E-09	2.10E-09	1.00E+00
44RU 103	6.23E-04	1.85E-07	0.0	7.98E-08	0.0	7.07E-07	0.0	2.16E-05	4.20E-09	3.60E-09	1.00E+00
55CS 137	7.64E-02	7.98E-05	1.09E-04	7.15E-05	0.0	3.71E-05	1.23E-05	2.10E-06	4.30E-09	4.20E-09	1.00E+00
40ZR 95	7.79E-04	3.04E-08	9.76E-09	6.61E-09	0.0	1.54E-08	0.0	3.03E-05	5.80E-09	5.00E-09	1.00E+00
41NB 95	1.64E-03	6.23E-09	3.46E-09	1.36E-09	0.0	3.43E-09	0.0	2.10E-05	6.00E-09	5.10E-09	1.00E+00
55CS 134	4.77E-02	6.22E-05	1.48E-04	1.21E-04	0.0	4.80E-05	1.59E-05	2.59E-06	1.40E-08	1.20E-08	1.00E+00
27CO 58	4.32E-02	0.0	7.46E-07	1.67E-06	0.0	0.0	0.0	1.51E-05	8.20E-09	7.00E-09	1.00E+00
25MN 54	3.51E-03	0.0	4.57E-06	8.73E-07	0.0	1.36E-06	0.0	1.40E-05	6.80E-09	5.80E-09	1.00E+00
55CS 136	1.27E-03	6.51E-06	2.57E-05	1.85E-05	0.0	1.43E-05	1.96E-06	2.92E-06	1.70E-08	1.50E-08	1.00E+00
26FE 59	6.15E-04	4.34E-06	1.03E-05	3.92E-06	0.0	0.0	2.86E-06	3.40E-05	9.40E-09	8.00E-09	1.00E+00
30ZN 65	6.67E-04	4.85E-06	1.54E-05	6.97E-06	0.0	1.03E-05	0.0	9.70E-06	4.60E-09	4.00E-09	1.00E+00
27CO 60	3.45E-03	0.0	2.15E-06	4.72E-06	0.0	0.0	0.0	4.02E-05	2.00E-08	1.70E-08	1.00E+00
57LA 140	3.98E-04	2.50E-09	1.26E-09	3.34E-10	0.0	0.0	0.0	9.25E-05	1.70E-08	1.50E-08	1.00E+00
51SB 124	5.64E-04	2.81E-06	5.30E-08	1.11E-06	6.79E-09	0.0	2.18E-06	7.95E-05	1.50E-08	1.30E-08	1.00E+00
1H 3	1.11E+01	0.0	1.34E-07	1.34E-07	1.34E-07	1.34E-07	1.34E-07	1.34E-07	0.0	0.0	1.00E+00

TABLE VII-C-1

* * * TEENAGER DOSE FACTORS * * *

NUCLIDE	CURIE/.5YR	INGESTION DOSE FACTORS (MREM/PCI INTAKE) BONE	LIVER	TOTAL BODY	THYROID	KIDNEY	LUNG	GI-LLI	SHORELINE (MREM/HR)/(PCI/M**2) SKIN	TOTAL BODY	RECON
38SR 89	3.58E-05	4.60E-04	0.0	1.32E-05	0.0	0.0	0.0	4.99E-05			
38SR 90	2.11E-04	1.04E-02	0.0	2.57E-03	0.0	0.0	0.0	2.20E-04			
58CE 141	9.05E-04	1.26E-08	8.46E-09	9.70E-10	0.0	2.94E-09	0.0	2.29E-05			
53I 131	1.69E-02	5.57E-06	7.87E-06	4.69E-06	2.27E-03	1.02E-05	0.0	1.49E-06			
53I 133	1.49E-03	2.03E-06	3.44E-06	1.06E-06	6.25E-04	4.33E-06	0.0	2.50E-06			
56BA 140	1.55E-03	2.83E-05	3.48E-08	1.82E-06	0.0	8.68E-09	2.33E-08	4.14E-06			
44RU 103	6.23E-04	2.37E-07	0.0	1.06E-07	0.0	7.07E-07	0.0	1.85E-05			
55CS 137	7.64E-02	1.07E-04	1.44E-04	5.05E-05	0.0	3.71E-05	1.91E-05	1.92E-06			
40ZR 95	7.79E-04	3.72E-08	1.24E-08	8.66E-09	0.0	1.54E-08	0.0	2.68E-05			
41NB 95	1.64E-03	7.24E-09	4.36E-09	2.46E-09	0.0	3.43E-09	0.0	1.78E-05			
55CS 134	4.77E-02	8.05E-05	1.94E-04	9.06E-05	0.0	4.80E-05	2.35E-05	2.24E-06			
27CO 58	4.32E-02	0.0	9.92E-07	2.26E-06	0.0	0.0	0.0	1.34E-05			
27CO 60	3.45E-03	0.0	2.76E-06	6.30E-06	0.0	0.0	0.0	3.31E-05			
57LA 140	3.98E-04	3.48E-09	1.72E-09	4.55E-10	0.0	0.0	0.0	9.48E-05			
1H 3	1.11E+01	0.0	1.06E-07	1.06E-07	1.06E-07	1.34E-07	1.06E-07	1.06E-07			

* * * CHILD DOSE FACTORS * * *

NUCLIDE	CURIE/.5YR	INGESTION DOSE FACTORS (MREM/PCI INTAKE) BONE	LIVER	TOTAL BODY	THYROID	KIDNEY	LUNG	GI-LLI	SHORELINE (MREM/HR)/(PCI/M**2) SKIN	TOTAL BODY	RECON
38SR 89	3.58E-05	1.38E-03	0.0	3.95E-05	0.0	0.0	0.0	5.15E-05			
38SR 90	2.11E-04	1.72E-02	0.0	4.36E-03	0.0	0.0	0.0	2.29E-04			
58CE 141	9.05E-04	3.76E-08	1.88E-08	2.86E-09	0.0	2.94E-09	0.0	2.36E-05			
53I 131	1.69E-02	1.63E-05	1.67E-05	1.26E-05	5.43E-03	1.02E-05	0.0	1.43E-06			
53I 133	1.49E-03	5.98E-06	7.38E-06	2.90E-06	1.78E-03	4.33E-06	0.0	2.99E-06			
56BA 140	1.55E-03	8.26E-05	7.25E-08	4.85E-06	0.0	8.68E-09	4.32E-08	4.21E-06			
44RU 103	6.23E-04	6.78E-07	0.0	2.74E-07	0.0	7.07E-07	0.0	1.78E-05			
55CS 137	7.64E-02	3.12E-04	3.02E-04	4.50E-05	0.0	3.71E-05	3.54E-05	1.84E-06			
40ZR 95	7.79E-04	1.04E-07	2.42E-08	2.20E-08	0.0	1.54E-08	0.0	2.50E-05			
41NB 95	1.64E-03	1.95E-08	8.32E-09	6.11E-09	0.0	3.43E-09	0.0	1.44E-05			
55CS 134	4.77E-02	2.24E-04	3.77E-04	8.02E-05	0.0	4.80E-05	4.19E-05	2.04E-06			
27CO 58	4.32E-02	0.0	1.85E-06	5.58E-06	0.0	0.0	0.0	1.10E-05			
27CO 60	3.45E-03	0.0	5.17E-06	1.55E-05	0.0	0.0	0.0	2.86E-05			
57LA 140	3.98E-04	1.01E-08	3.52E-09	1.19E-09	0.0	0.0	0.0	1.00E-04			
1H 3	1.11E+01	0.0	2.03E-07	2.03E-07	2.03E-07	1.34E-07	2.03E-07	2.03E-07			

TABLE VII-C-2

* * * INFANT DOSE FACTORS * * *

NUCLIDE	CURIE/.5YR	INGESTION DOSE FACTORS (MREM/PCI INTAKE) BONE	LIVER	TOTAL BODY	THYROID	KIDNEY	LUNG	GI-LLI	SHORELINE (MREM/HR)/(PCI/M**2) SKIN	TOTAL BODY	RECON
38SR 89	3.58E-05	2.93E-03	0.0	8.42E-05	0.0	0.0	0.0	5.48E-05			
38SR 90	2.11E-04	2.51E-02	0.0	6.40E-03	0.0	0.0	0.0	2.43E-04			
58CE 141	9.05E-04	8.00E-08	4.91E-08	5.75E-09	0.0	2.94E-09	0.0	2.38E-05			
53I 131	1.69E-02	3.42E-05	4.07E-05	2.38E-05	1.31E-02	1.02E-05	0.0	1.53E-06			
53I 133	1.49E-03	1.26E-05	1.84E-05	5.58E-06	4.35E-03	4.33E-06	0.0	3.27E-06			
56BA 140	1.55E-03	1.74E-04	1.75E-07	8.99E-06	0.0	8.68E-09	1.97E-07	4.43E-06			
44RU 103	6.23E-04	1.41E-06	0.0	4.85E-07	0.0	7.07E-07	0.0	1.76E-05			
55CS 137	7.64E-02	6.53E-04	7.31E-04	4.20E-05	0.0	3.71E-05	8.81E-05	1.89E-05			
40ZR 95	7.79E-04	2.11E-07	5.32E-08	3.78E-08	0.0	1.54E-08	0.0	2.38E-05			
41NB 95	1.64E-03	3.89E-08	1.75E-08	1.03E-08	0.0	3.43E-09	0.0	1.40E-05			
55CS 134	4.77E-02	4.58E-04	8.24E-04	6.97E-05	0.0	4.80E-05	9.42E-05	1.96E-06			
27CO 58	4.32E-02	0.0	3.78E-06	9.26E-06	0.0	0.0	0.0	9.79E-06			
27CO 60	3.45E-03	0.0	1.07E-05	2.56E-05	0.0	0.0	0.0	2.64E-05			
57LA 140	3.98E-04	2.12E-08	8.37E-09	2.16E-09	0.0	0.0	0.0	1.04E-04			
1H 3	1.11E+01	0.0	3.07E-07	3.07E-07	3.07E-07	1.34E-07	3.07E-07	3.07E-07			

TOTAL NUMBER IN SOURCE TERM IS 24 TOTAL RELEASE IS 1.1309E+01

TABLE VII-C-3

* * * AS LOW AS REASONABLY ACHIEVABLE * * *

ADULT DOSES

DOSE (MREM PER .5YR INTAKE)

PATHWAY	SKIN	BONE	LIVER	TOTAL BODY	THYROID	KIDNEY	LUNG	GI-LLI
FISH		5.33E-01	9.05E-01	6.61E-01	1.35E-02	3.02E-01	9.97E-02	4.88E-02
DRINKING		3.57E-04	5.65E-04	4.40E-04	1.08E-03	2.25E-04	1.06E-04	9.67E-05
SHORELINE	6.09E-04	5.22E-04	5.22E-04	5.22E-04	5.22E-04	5.22E-04	5.22E-04	5.22E-04
SWIMMING	0.0	5.78E-06	5.78E-06	5.78E-06	5.78E-06	5.78E-06	5.78E-06	5.78E-06
BOATING	0.0	2.89E-06	2.89E-06	2.89E-06	2.89E-06	2.89E-06	2.89E-06	2.89E-06
TOTAL	6.09E-04	5.34E-01	9.06E-01	6.62E-01	1.51E-02	3.03E-01	1.00E-01	4.94E-02

	USAGE (KG/YR,HR/YR)	DILUTION	TIME(HR)
FISH	21.0	1.0	24.00
DRINKING	730.0	30.8	18.60
SHORELINE	12.0	1.0	0.0
SWIMMING	12.0	1.0	0.0
BOATING	12.0	1.0	0.0

SHOREWIDTH FACTOR=0.2

* * * ISOTOPE CONTRIBUTION * * *

PATHWAY	SKIN	BONE	LIVER	TOTAL BODY	THYROID	KIDNEY	LUNG	GI-LLI
FISH		CS 137 67%	CS 137 53%	CS 137 48%	I 131 98%	CS 137 55%	CS 137 55%	CS 137 19%
		CS 134 32%	CS 134 45%	CS 134 51%	I 133 1%	CS 134 44%	CS 134 44%	NB 95 60%
								CS 134 14%
								CO 58 1%
								MN 54 1%
DRINKING		SR 90 14%	CS 137 48%	SR 90 2%	I 131 94%	I 131 2%	CS 137 29%	BA 140 2%
		CS 137 56%	CS 134 41%	CS 137 41%	I 133 1%	CS 137 41%	CS 134 23%	CS 137 5%
		CS 134 27%	H 3 8%	CS 134 43%	H 3 4%	CS 134 33%	H 3 46%	NB 95 1%
				H 3 11%		H 3 21%		CS 134 4%
								CO 58 22%
								MN 54 1%
								CO 60 4%
								SB 124 1%
								H 3 50%
SHORELINE	CS 137 64%	CS 137 64%						
	CS 134 26%	CS 134 26%						
	CO 58 1%	CO 58 1%						
	CO 60 6%	CO 60 6%						
SWIM		I 131 3%						
		CS 137 22%						
		CS 134 40%						
		CO 58 22%						
		MN 54 1%						
		CS 136 1%						
		CO 60 4%						

TABLE VII-C-4

* * * AS LOW AS REASONABLY ACHIEVABLE * * *

TEENAGER DOSES

DOSE (MREM PER .5YR INTAKE)

PATHWAY	SKIN	BONE	LIVER	TOTAL BODY	THYROID	KIDNEY	LUNG	GI-LLI
FISH		5.39E-01	9.07E-01	3.67E-01	1.20E-02	2.30E-01	1.15E-01	3.23E-02
DRINKING		3.32E-04	5.01E-04	2.34E-04	8.69E-04	1.57E-04	8.69E-05	5.64E-05
SHORELINE	3.40E-03	2.91E-03	2.91E-03	2.91E-03	2.91E-03	2.91E-03	2.91E-03	2.91E-03
SWIMMING	0.0	3.22E-05	3.22E-05	3.22E-05	3.22E-05	3.22E-05	3.22E-05	3.22E-05
BOATING	0.0	1.61E-05	1.61E-05	1.61E-05	1.61E-05	1.61E-05	1.61E-05	1.61E-05
TOTAL	3.40E-03	5.42E-01	9.10E-01	3.70E-01	1.58E-02	2.33E-01	1.18E-01	3.53E-02

	USAGE (KG/YR,HR/YR)	DILUTION	TIME(HR)	SHOREWIDTH FACTOR=0.2
FISH	16.0	1.0	24.00	
DRINKING	510.0	30.8	18.60	
SHORELINE	67.0	1.0	0.0	
SWIMMING	67.0	1.0	0.0	
BOATING	67.0	1.0	0.0	

* * * ISOTOPE CONTRIBUTION * * *

PATHWAY	SKIN	BONE	LIVER	TOTAL BODY	THYROID	KIDNEY	LUNG	GI-LLI
FISH		CS 137 67%	CS 137 54%	CS 137 46%	I 131 98%	CS 137 55%	CS 137 56%	CS 137 20%
		CS 134 31%	CS 134 45%	CS 134 52%	I 133 1%	CS 134 44%	CS 134 43%	NB 95 59%
								CS 134 14%
								CO 58 1%
								MN 54 1%
DRINKING		SR 90 15%	CS 137 50%	SR 90 5%	I 131 95%	I 131 2%	CS 137 38%	SR 90 1%
		CS 137 56%	CS 134 42%	CS 137 38%	I 133 1%	CS 137 41%	CS 134 29%	CS 137 6%
		CS 134 26%	H 3 5%	CS 134 42%	H 3 3%	CS 134 33%	H 3 31%	NB 95 1%
				H 3 11%		H 3 21%		CS 134 4%
								CO 58 23%
								MN 54 2%
								CO 60 4%
								LA 140 1%
								SB 124 1%
								H 3 48%
SHORELINE	CS 137 64%	CS 137 64%						
	CS 134 26%	CS 134 26%						
	CO 58 1%	CO 58 1%						
	CO 60 6%	CO 60 6%						
SWIM		I 131 3%						
		CS 137 22%						
		CS 134 40%						
		CO 58 22%						
		MN 54 1%						
		CS 136 1%						
		CO 60 4%						

TABLE VII-C-5

* * * AS LOW AS REASONABLY ACHIEVABLE * * *

CHILD DOSES

DOSE (MREM PER .5YR INTAKE)

PATHWAY	SKIN	BONE	LIVER	TOTAL BODY	THYROID	KIDNEY	LUNG	GI-LLI
FISH		6.66E-01	7.92E-01	1.41E-01	1.24E-02	9.92E-02	9.07E-02	1.20E-02
DRINKING		8.92E-04	1.01E-03	2.54E-04	2.07E-03	1.57E-04	1.61E-04	7.81E-05
SHORELINE	7.10E-04	6.09E-04	6.09E-04	6.09E-04	6.09E-04	6.09E-04	6.09E-04	6.09E-04
SWIMMING	0.0	6.74E-06	6.74E-06	6.74E-06	6.74E-06	6.74E-06	6.74E-06	6.74E-06
BOATING	0.0	3.37E-06	3.37E-06	3.37E-06	3.37E-06	3.37E-06	3.37E-06	3.37E-06
TOTAL	7.10E-04	6.68E-01	7.93E-01	1.42E-01	1.51E-02	1.00E-01	9.14E-02	1.27E-02

	USAGE (KG/YR,HR/YR)	DILUTION	TIME(HR)
FISH	6.9	1.0	24.00
DRINKING	510.0	30.8	18.60
SHORELINE	14.0	1.0	0.0
SWIMMING	14.0	1.0	0.0
BOATING	14.0	1.0	0.0

SHOREWIDTH FACTOR=0.2

* * * ISOTOPE CONTRIBUTION * * *

PATHWAY	SKIN	BONE	LIVER	TOTAL BODY	THYROID	KIDNEY	LUNG	GI-LLI
FISH		CS 137 65%	CS 137 56%	CS 137 47%	I 131 98%	CS 137 55%	CS 137 57%	CS 137 22%
		CS 134 30%	CS 134 43%	CS 134 52%	I 133 1%	CS 134 44%	CS 134 42%	NB 95 55%
								CS 134 15%
								CO 58 1%
								MN 54 1%
								ZN 65 1%
DRINKING		SR 90 9%	CS 137 52%	SR 90 8%	I 131 95%	I 131 2%	CS 137 38%	SR 90 1%
		CS 137 61%	CS 134 41%	I 131 1%	I 133 1%	CS 137 41%	CS 134 28%	CS 137 4%
		CS 134 27%	H 3 5%	CS 137 31%	H 3 2%	CS 134 33%	H 3 32%	CS 134 2%
				CS 134 34%		H 3 21%		CO 58 13%
				CO 58 2%				MN 54 1%
				H 3 20%				CO 60 2%
								SB 124 1%
								H 3 66%
SHORELINE	CS 137 64%	CS 137 64%						
	CS 134 26%	CS 134 26%						
	CO 58 1%	CO 58 1%						
	CO 60 5%	CO 60 6%						
SWIM		I 131 3%						
		CS 137 22%						
		CS 134 40%						
		CO 58 22%						
		MN 54 1%						
		CS 136 1%						
		CO 60 4%						

TABLE VII-C-6

* * * AS LOW AS REASONABLY ACHIEVABLE * * *

INFANT DOSES

DOSE (MREM PER .5YR INTAKE)

PATHWAY	SKIN	BONE	LIVER	TOTAL BODY	THYROID	KIDNEY	LUNG	GI-LLI
FISH		0.0	0.0	0.0	0.0	0.0	0.0	0.0
DRINKING		1.80E-03	2.30E-03	2.82E-04	4.95E-03	1.57E-04	3.38E-04	1.04E-04
SHORELINE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	0.0	1.80E-03	2.30E-03	2.82E-04	4.95E-03	1.57E-04	3.38E-04	1.04E-04

	USAGE (KG/YR,HR/YR)	DILUTION	TIME(HR)
FISH	0.0	1.0	24.00
DRINKING	510.0	30.8	18.60

SHOREWIDTH FACTOR=0.2

* * * ISOTOPE CONTRIBUTION * * *

PATHWAY	SKIN	BONE	LIVER	TOTAL BODY	THYROID	KIDNEY	LUNG	GI-LLI
DRINKING	SR 90 6%	CS 137 56%	SR 90 11%	I 131 96%	I 131 2%	CS 137 45%	SR 90 1%
	CS 137 64%	CS 134 39%	I 131 3%	I 133 1%	CS 137 41%	CS 134 30%	CS 137 3%
	CS 134 28%	H 3 3%	CS 137 26%	H 3 1%	CS 134 33%	H 3 23%	CS 134 2%
			CS 134 27%		H 3 21%		CO 58 9%
			CO 58 3%				MN 54 1%
			H 3 27%				CO 60 2%
							H 3 76%

TABLE VII-C-7

* * * SELECTED LOCATIO * * *

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		5.33E-01	9.05E-01	6.61E-01	1.35E-02	3.02E-01	9.97E-02	4.88E-02
DRINKING		1.10E-02	1.74E-02	1.35E-02	3.42E-02	6.94E-03	3.25E-03	2.99E-03
SHORELINE	6.09E-04	5.22E-04	5.22E-04	5.22E-04	5.22E-04	5.22E-04	5.22E-04	5.22E-04
SWIMMING	0.0	5.78E-06	5.78E-06	5.78E-06	5.78E-06	5.78E-06	5.78E-06	5.78E-06
BOATING	0.0	2.89E-06	2.89E-06	2.89E-06	2.89E-06	2.89E-06	2.89E-06	2.89E-06
TOTAL	6.09E-04	5.45E-01	9.23E-01	6.75E-01	4.82E-02	3.09E-01	1.04E-01	5.23E-02

	USAGE (KG/YR,HR/YR)	DILUTION	TIME(HR)
FISH	21.0	1.0	24.00
DRINKING	730.0	1.0	12.00
SHORELINE	12.0	.0	0.0
SWIMMING	12.0	.0	0.0
BOATING	12.0	1.0	0.0

SHOREWIDTH FACTOR=0.2

* * * ISOTOPE CONTRIBUTION * * *

PATHWAY	SKIN	BONE	LIVER	TOTAL BODY	THYROID	KIDNEY	LUNG	GI-LLI
FISH		CS 137 67%	CS 137 53%	CS 137 48%	I 131 98%	CS 137 55%	CS 137 55%	CS 137 19%
		CS 134 32%	CS 134 45%	CS 134 51%	I 133 1%	CS 134 44%	CS 134 44%	NB 95 60%
								CS 134 14%
								CO 58 1%
								MN 54 1%
DRINKING		SR 90 14%	CS 137 48%	SR 90 2%	I 131 94%	I 131 2%	CS 137 29%	BA 140 2%
		CS 137 56%	CS 134 41%	CS 137 41%	I 133 1%	CS 137 41%	CS 134 23%	CS 137 5%
		CS 134 27%	H 3 8%	CS 134 43%	H 3 4%	CS 134 33%	H 3 46%	NB 95 1%
				H 3 11%		H 3 21%		CS 134 4%
								CO 58 22%
								MN 54 1%
								CO 60 4%
								LA 140 1%
								SB 124 1%
								H 3 50%
SHORELINE	CS 137 64%	CS 137 64%						
	CS 134 26%	CS 134 26%						
	CO 58 1%	CO 58 1%						
	CO 60 6%	CO 60 6%						
SWIM		I 131 3%						
		CS 137 22%						
		CS 134 40%						
		CO 58 22%						
		MN 54 1%						
		CS 136 1%						
		CO 60 4%						

TABLE VII-C-8

* * * SELECTED LOCATI* * * *

LOCATION IS SITE DISCHG.

TEENAGER DOSES

DOSE (MREM PER .5YR INTAKE)

PATHWAY	SKIN	BONE	LIVER	TOTAL BODY	THYROID	KIDNEY	LUNG	GI-LLI
FISH		5.34E-01	9.07E-01	3.67E-01	1.20E-02	2.30E-01	1.15E-01	3.23E-02
DRINKING		1.02E-02	1.54E-02	7.21E-03	2.75E-02	4.85E-03	2.68E-03	1.74E-03
SHORELINE	3.40E-03	2.91E-03	2.91E-03	2.91E-03	2.91E-03	2.91E-03	2.91E-03	2.91E-03
SWIMMING	0.0	3.22E-05	3.22E-05	3.22E-05	3.22E-05	3.22E-05	3.22E-05	3.22E-05
BOATING	0.0	1.61E-05	1.61E-05	1.61E-05	1.61E-05	1.61E-05	1.61E-05	1.61E-05
TOTAL	3.40E-03	5.52E-01	9.25E-01	3.77E-01	4.24E-02	2.38E-01	1.21E-01	3.70E-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	0.0	
SWIMMING	67.0	1.0	0.0	
BOATING	67.0	1.0	0.0	

* * * ISOTOPE CONTRIBUTION * * *

PATHWAY	SKIN	BONE	LIVER	TOTAL BODY	THYROID	KIDNEY	LUNG	GI-LLI
FISH		CS 137 67%	CS 137 54%	CS 137 46%	I 131 98%	CS 137 55%	CS 137 56%	CS 137 20%
		CS 134 31%	CS 134 45%	CS 134 52%	I 133 1%	CS 134 44%	CS 134 43%	NB 95 59%
								CS 134 14%
								CO 58 1%
								MN 54 1%
DRINKING		SR 90 15%	CS 137 50%	SR 90 5%	I 131 95%	I 131 2%	CS 137 38%	SR 90 1%
		CS 137 56%	CS 134 42%	CS 137 38%	I 133 1%	CS 137 41%	CS 134 29%	CS 137 5%
		CS 134 26%	H 3 5%	CS 134 42%	H 3 3%	CS 134 33%	H 3 31%	NB 95 1%
				H 3 11%		H 3 21%		CS 134 4%
								CO 58 23%
								MN 54 2%
								CO 60 4%
								LA 140 1%
								SB 124 1%
								H 3 49%
SHORELINE	CS 137 64%	CS 137 64%						
	CS 134 26%	CS 134 26%						
	CO 58 1%	CO 58 1%						
	CO 60 6%	CO 60 6%						
SWIM		I 131 3%						
		CS 137 22%						
		CS 134 40%						
		CO 58 22%						
		MN 54 1%						
		CS 136 1%						
		CO 60 4%						

TABLE VII-C-9

* * * SELECTED LOCATI * * *

LOCATION IS SITE DISCHG.

C H I L D D O S E S

DOSE (MREM PER .5YR INTAKE)

PATHWAY	SKIN	BONE	LIVER	TOTAL BODY	THYROID	KIDNEY	LUNG	GI-LLI
FISH		6.66E-01	7.92E-01	1.41E-01	1.24E-02	9.92E-02	9.07E-02	1.20E-02
DRINKING		2.75E-02	3.11E-02	7.81E-03	6.55E-02	4.85E-03	4.96E-03	2.41E-03
SHORELINE	7.10E-04	6.09E-04	6.09E-04	6.09E-04	6.09E-04	6.09E-04	6.09E-04	6.09E-04
SWIMMING	0.0	6.74E-06	6.74E-06	6.74E-06	6.74E-06	6.74E-06	6.74E-06	6.74E-06
BOATING	0.0	3.37E-06	3.37E-06	3.37E-06	3.37E-06	3.37E-06	3.37E-06	3.37E-06
TOTAL	7.10E-04	6.94E-01	8.23E-01	1.49E-01	7.85E-02	1.05E-01	9.62E-02	1.50E-02

	USAGE (KG/YR,HR/YR)	DILUTION	TIME(HR)
FISH	6.9	1.0	24.00
DRINKING	510.0	1.0	12.00
SHORELINE	14.0	1.0	0.0
SWIMMING	14.0	1.0	0.0
BOATING	14.0	1.0	0.0

SHOREWIDTH FACTOR=0.2

* * * ISOTOPE CONTRIBUTION * * *

PATHWAY	SKIN	BONE	LIVER	TOTAL BODY	THYROID	KIDNEY	LUNG	GI-LLI
FISH		CS 137 68%	CS 137 56%	CS 137 47%	I 131 98%	CS 137 55%	CS 137 57%	CS 137 22%
		CS 134 30%	CS 134 43%	CS 134 52%	I 133 1%	CS 134 44%	CS 134 42%	NB 95 55%
								CS 134 15%
								CO 58 1%
								MN 54 1%
								ZN 65 1%
DRINKING		SR 90 9%	CS 137 52%	SR 90 8%	I 131 95%	I 131 2%	CS 137 38%	SR 90 1%
		CS 137 61%	CS 134 41%	I 131 1%	I 133 1%	CS 137 41%	CS 134 28%	CS 137 4%
		CS 134 27%	H 3 5%	CS 137 31%	H 3 2%	CS 134 33%	H 3 32%	CS 134 2%
				CS 134 34%		H 3 21%		CO 58 13%
				CO 58 2%				MN 54 1%
				H 3 20%				CO 60 2%
								SB 124 1%
								H 3 66%
SHORELINE	CS 137 64%	CS 137 64%						
	CS 134 26%	CS 134 26%						
	CO 58 1%	CO 58 1%						
	CO 60 6%	CO 60 6%						
SWIM		I 131 3%						
		CS 137 22%						
		CS 134 40%						
		CO 58 22%						
		MN 54 1%						
		CS 136 1%						
		CO 60 4%						

TABLE VII-C-10

* * * SELECTED LOCATION * * *

LOCATION IS SITE DISCHG.

INFANT DOSES

DOSE (MREM PER .5YR INTAKE)

PATHWAY	SKIN	BONE	LIVER	TOTAL BODY	THYROID	KIDNEY	LUNG	GI-LLI
FISH		0.0	0.0	0.0	0.0	0.0	0.0	0.0
DRINKING		5.55E-02	7.08E-02	8.70E-03	1.57E-01	4.85E-03	1.04E-02	3.19E-03
SHORELINE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	0.0	5.55E-02	7.08E-02	8.70E-03	1.57E-01	4.85E-03	1.04E-02	3.19E-03

	USAGE (KG/YR,HR/YR)	DILUTION	TIME(HR)
FISH	0.0	1.0	24.00
DRINKING	510.0	1.0	12.00

SHOREWIDTH FACTOR=0.2

* * * ISOTOPE CONTRIBUTION * * *

PATHWAY	SKIN	BONE	LIVER	TOTAL BODY	THYROID	KIDNEY	LUNG	GI-LLI
DRINKING		SR 90 64%	CS 137 56%	SR 90 11%	I 131 96%	I 131 2%	CS 137 45%	SR 90 1%
		CS 137 63%	CS 134 39%	I 131 3%	I 133 1%	CS 137 41%	CS 134 30%	H 3 23%	CS 137 3%
		CS 134 28%	H 3 3%	CS 137 26%	H 3 1%	CS 134 33%		CS 134 2%
				CS 134 27%		H 3 21%		CO 58 9%
				CO 58 3%				MN 54 1%
				H 3 27%				CO 60 2%
								H 3 75%

TABLE VII-C-11

* * * 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	1.98E-01	3.36E-01	2.45E-01	2.97E-03	1.12E-01	3.70E-02	1.69E-02
FISH	TEENAGER	9.29E+03	4.20E-02	7.07E-02	2.86E-02	5.51E-04	1.79E-02	8.99E-03	2.34E-03
FISH	CHILD	5.61E+03	7.28E-02	8.65E-02	1.54E-02	7.96E-04	1.08E-02	9.90E-03	1.22E-03
FISH	TOTAL	7.30E+04	3.13E-01	4.93E-01	2.89E-01	4.31E-03	1.41E-01	5.59E-02	2.04E-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 67%	CS 137 54%	CS 137 48%	I 131 99%	CS 137 55%	CS 137 55%	CS 137 20%
	CS 134 32%	CS 134 45%	CS 134 51%		CS 134 44%	CS 134 44%	NB 95 58%
							CS 134 15%
							CO 58 1%
							MN 54 1%
TEENAGER	CS 137 67%	CS 137 54%	CS 137 47%	I 131 99%	CS 137 55%	CS 137 56%	CS 137 21%
	CS 134 31%	CS 134 45%	CS 134 52%		CS 134 44%	CS 134 43%	NB 95 56%
							CS 134 15%
							CO 58 2%
							MN 54 1%
CHILD	CS 137 69%	CS 137 56%	CS 137 47%	I 131 99%	CS 137 55%	CS 137 57%	CS 137 24%
	CS 134 30%	CS 134 43%	CS 134 52%		CS 134 44%	CS 134 42%	NB 95 53%
							CS 134 16%
							CO 58 1%
							MN 54 1%
							ZN 65 1%

TABLE VII-D-1

* * * 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	3.81E+06	2.15E-02	3.65E-02	2.66E-02	2.49E-04	1.22E-02	4.02E-03	1.77E-03
FISH	TEENAGER	6.09E+05	4.56E-03	7.67E-03	3.10E-03	4.63E-05	1.94E-03	9.76E-04	2.46E-04
FISH	CHILD	3.68E+05	7.91E-03	9.39E-03	1.67E-03	6.69E-05	1.18E-03	1.08E-03	1.29E-04
FISH	TOTAL	4.78E+06	3.40E-02	5.35E-02	3.14E-02	3.63E-04	1.53E-02	6.07E-03	2.14E-03

DILUTION 7.30E+00 CATCH 7.30E+04 TIME(HR)-INCLUDES FOOD PROCESSING TIME OF 2.40E+02 HR 2.41E+02 POPULATION=8.36E+05

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 67%	CS 137 54%	CS 137 48%	I 131 99%	CS 137 55%	CS 137 55%	CS 137 21%
	CS 134 32%	CS 134 45%	CS 134 51%		CS 134 44%	CS 134 44%	NB 95 56%
							CS 134 16%
							CO 58 1%
							MN 54 1%
TEENAGER	CS 137 67%	CS 137 54%	CS 137 47%	I 131 99%	CS 137 55%	CS 137 56%	CS 137 22%
	CS 134 31%	CS 134 45%	CS 134 52%		CS 134 44%	CS 134 43%	NB 95 55%
							CS 134 16%
							CO 58 2%
							MN 54 1%
CHILD	CS 137 69%	CS 137 56%	CS 137 47%	I 131 99%	CS 137 55%	CS 137 57%	CS 137 25%
	CS 134 30%	CS 134 43%	CS 134 52%		CS 134 44%	CS 134 42%	NB 95 51%
							CS 134 17%
							CO 58 1%
							MN 54 1%
							ZN 65 1%

----------NEPA DOSES----------

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

			DOSE (MAN-REM)						
PATHWAY	AGE GROUP	USAGE	BONE	LIVER	TOTAL BODY	THYROID	KIDNEY	LUNG	GI-LLI
FISH	ADULT	5.91E+04	1.99E-01	3.35E-01	2.45E-01	2.29E-03	1.12E-01	3.70E-02	1.63E-02
FISH	TEENAGER	9.29E+03	4.20E-02	7.03E-02	2.85E-02	4.26E-04	1.79E-02	8.98E-03	2.26E-03
FISH	CHILD	5.61E+03	7.28E-02	8.64E-02	1.53E-02	6.15E-04	1.08E-02	9.89E-03	1.18E-03
FISH	TOTAL	7.30E+04	3.13E-01	4.92E-01	2.89E-01	3.33E-03	1.41E-01	5.59E-02	1.97E-02

TABLE VII-D-2

* * * 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	6.31E-02	9.99E-02	7.79E-02	1.83E-01	3.98E-02	1.87E-02	1.70E-02
DRINKING	TEENAGER	1.93E+07	1.25E-02	1.89E-02	8.83E-03	3.14E-02	5.93E-03	3.28E-03	2.12E-03
DRINKING	CHILD	2.75E+07	4.81E-02	5.45E-02	1.37E-02	1.07E-01	8.48E-03	8.68E-03	4.20E-03
DRINKING	TOTAL	1.76E+08	1.24E-01	1.73E-01	1.00E-01	3.21E-01	5.42E-02	3.06E-02	2.33E-02

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	14%	CS 137	48%	SR 90	2%	I 131	94%	I 131	2%	CS 137	29%	BA 140	2%
	CS 137	56%	CS 134	41%	CS 137	41%	H 3	4%	CS 137	41%	CS 134	23%	CS 137	5%
	CS 134	27%	H 3	8%	CS 134	43%			CS 134	33%	H 3	46%	NB 95	1%
					H 3	11%			H 3	21%			CS 134	4%
													CO 58	22%
TEENAGER	SR 90	15%	CS 137	50%	SR 90	5%	I 131	95%	I 131	2%	CS 137	38%	SR 90	1%
	CS 137	56%	CS 134	42%	CS 137	38%	H 3	3%	CS 137	41%	CS 134	29%	CS 137	6%
	CS 134	26%	H 3	5%	CS 134	42%			CS 134	33%	H 3	31%	NB 95	1%
					H 3	11%			H 3	21%			CS 134	4%
													CO 58	23%
CHILD	SR 90	9%	CS 137	52%	SR 90	8%	I 131	96%	I 131	2%	CS 137	38%	SR 90	1%
	CS 137	61%	CS 134	41%	I 131	1%	I 133	1%	CS 137	41%	CS 134	28%	CS 137	4%
	CS 134	27%	H 3	5%	CS 137	31%	H 3	2%	CS 134	33%	H 3	32%	CS 134	2%
					CS 134	34%			H 3	21%			CO 58	13%
					CO 58	2%							MN 54	1%
					H 3	20%							CO 60	2%
													SB 124	1%

TABLE VII-D-3

DOSE (MAN-REM)

PATHWAY	AGE GROUP	USAGE	BONE	LIVER	TOTAL BODY	THYROID	KIDNEY	LUNG	GI-LLI
DRINKING	ADULT	2.12E+07	1.02E-02	1.62E-02	1.26E-02	2.96E-02	6.44E-03	3.02E-03	2.75E-03
DRINKING	TEENAGER	3.17E+06	2.03E-03	3.06E-03	1.43E-03	5.07E-03	9.60E-04	5.31E-04	3.43E-04
DRINKING	CHILD	4.52E+06	7.78E-03	8.82E-03	2.21E-03	1.72E-02	1.37E-03	1.40E-03	6.79E-04
DRINKING	TOTAL	2.89E+07	2.00E-02	2.80E-02	1.62E-02	5.19E-02	8.77E-03	4.96E-03	3.78E-03

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 14%	CS 137 48%	SR 90 2%	I 131 94%	I 131 2%	CS 137 29%	BA 140 2%
	CS 137 56%	CS 134 41%	CS 137 41%	H 3 4%	CS 137 41%	CS 134 23%	CS 137 5%
	CS 134 27%	H 3 8%	CS 134 43%		CS 134 33%	H 3 46%	NB 95 1%
			H 3 11%		H 3 21%		CS 134 4%
							CO 58 22%
TEENAGER	SR 90 15%	CS 137 50%	SR 90 5%	I 131 95%	I 131 2%	CS 137 38%	SR 90 1%
	CS 137 56%	CS 134 42%	CS 137 38%	H 3 3%	CS 137 41%	CS 134 29%	CS 137 6%
	CS 134 26%	H 3 5%	CS 134 42%		CS 134 33%	H 3 31%	NB 95 1%
			H 3 11%		H 3 21%		CS 134 4%
							CO 58 23%
CHILD	SR 90 9%	CS 137 52%	SR 90 8%	I 131 96%	I 131 2%	CS 137 38%	SR 90 1%
	CS 137 61%	CS 134 41%	I 131 1%	I 133 1%	CS 137 41%	CS 134 28%	CS 137 4%
	CS 134 27%	H 3 5%	CS 137 31%	H 3 2%	CS 134 33%	H 3 32%	CS 134 2%
			CS 134 34%		H 3 21%		CO 58 13%
			CO 58 2%				MN 54 1%
			H 3 20%				CO 60 2%
							SB 124 1%

-----CUMULATIVE TOTAL-----

PATHWAY	AGE GROUP	USAGE	BONE	LIVER	TOTAL BODY	THYROID	KIDNEY	LUNG	GI-LLI
DRINKING	CUMUL TOTAL	2.05E+08	1.44E-01	2.01E-01	1.16E-01	3.73E-01	6.30E-02	3.56E-02	2.71E-02

---------HYDROSPHERE TRITIUM DOSE---------

PATHWAY	AGE GROUP	USAGE	BONE	LIVER	TOTAL BODY	THYROID	KIDNEY	LUNG	GI-LLI
WATER	TOTAL	2.20E+00	3.75E-10	3.75E-10	3.75E-10	3.75E-10	3.75E-10	3.75E-10	3.75E-10

TABLE VII-D-4

* * * RECREATION POPULATION DOSES * * *

			DOSE (MAN-REM)		
PATHWAY	AGE GROUP	USAGE	SKIN	TOTAL BODY	THYROID
SHORELINE	TOTAL POPUL	4.10E+07	2.85E-01	2.44E-01	2.44E-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	64%	CS 137	64%
	CS 134	26%	CS 134	26%
	CO 58	1%	CO 58	1%
	CO 60	6%	CO 60	6%

			DOSE (MAN-REM)		
PATHWAY	AGE GROUP	USAGE	SKIN	TOTAL BODY	THYROID
SWIMMING	TOTAL POPUL	4.10E+07	0.0	2.70E-03	2.70E-03

LOCATION- DOWN STREAM

DILUTION=0.73E+01 TRANSIT TIME=0.67E+00 HR

* * * ISOTOPE CONTRIBUTION * * *

AGE GROUP	SKIN		TOTAL BODY	
ADULT				
			I 131	3%
			CS 137	22%
			CS 134	40%
			CO 58	22%
			MN 54	1%
			CS 136	1%
			CO 60	4%

			DOSE (MAN-REM)		
PATHWAY	AGE GROUP	USAGE	SKIN	TOTAL BODY	THYROID
BOATING	TOTAL POPUL	4.10E+07	0.0	1.35E-03	1.35E-03

LOCATION- DOWN STREAM

DILUTION=0.73E+01 TRANSIT TIME=0.67E+00 HR

TABLE VII-D-5

* * * DOSE TO BIOTA * * *

MRADS PER .5YR

DILUTION= 1.00E+00 TRANSIT TIME= 0.0 HR

	INTERNAL	EXTERNAL	TOTAL
FISH	1.86E+00	1.91E+00	3.77E+00
INVERTEBRATE	5.72E-01	3.81E+00	4.38E+00
ALGAE	6.24E-01	4.22E-03	6.28E-01
MUSKRAT	1.10E+01	1.27E+00	1.23E+01
RACCOON	5.13E-01	9.52E-01	1.47E+00
HERON	6.22E+01	1.27E+00	6.35E+01
DUCK	9.72E+00	1.91E+00	1.16E+01

* * * ISOTOPE CONTRIBUTION * * *

PATHWAY	BODY				
FISH	CS 137	57%	MUSKRAT	SR 90	6%
	NB 95	6%		CS 137	52%
	CS 134	34%		CS 134	39%
INVERTEBRATE	CS 137	9%	RACCOON	SR 90	4%
	CS 134	5%		CS 137	42%
	CO 58	3%		CS 134	34%
	MN 54	74%		MN 54	14%
	FE 59	1%		ZN 65	2%
	ZN 65	1%			
	LA 140	1%			
			HERON	CS 137	54%
				CS 134	45%
ALGAE	CE 141	2%			
	BA 140	1%			
	CS 137	42%	DUCK	SR 90	1%
	CS 134	25%		CS 137	54%
	CO 58	3%		CS 134	35%
	MN 54	7%			
	ZN 65	2%			
	LA 140	6%			
	SR 124	1%			

TABLE VII-D-6