50-298

NEBRASKA PUBLIC POWER DISTRICT

COOPER NUCLEAR STATION
SEMI-ANNUAL OPERATING REPORT
RADIOACTIVE EFFLUENTS
DOCKET NUMBER 50-298

July 1, 1981 — December 31, 1981

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Nebraska Public Power District

GENERAL OFFICE
P.O. BOX 499, COLUMBUS, NEBRASKA 68601-0499
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LQA8200097

March 1, 1982

Mr. John T. Collins
Regional Administrator
U.S. Nuclear Regulatory Commission
Region IV
611 Ryan Plaza Drive
Suite 1000
Arlington, Texas 76011

Subject: Semi-Annual Operating Report - Radioactive Effluents
Cooper Nuclear Station
July 1, 1981 through December 31, 1981
NRC Docket No. 50-298, DPR-46

Dear Mr. Collins:

In accordance with Paragraph 5.4.1.b of the Cooper Nuclear Station Environmental Technical Specifications, the Nebraska Public Power District submits the Cooper Nuclear Station Semi-Annual Operating Report - Radioactive Effluents for the period July 1, 1981 through December 31, 1981.

In accordance with Reg Guide 10.1, Revision 4, we are enclosing one signed original of the report for your use and one copy to the Document Control Desk.

Should you have any questions or comments regarding this report, please contact me.

Sincerely,

Jay M. Pilant

Jay M. Pilant
Division Manager of Licensing
and Quality Assurance

JMP:ACM:cmk

Enclosure

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

STATE OF NEBRASKA)
) ss
PLATTE COUNTY)

Jay M. Pilant, being first duly sworn, deposes and says that he is an authorized representative of the Nebraska Public Power District, a public corporation and political subdivision of the State of Nebraska; that he is duly authorized to submit this information on behalf of Nebraska Public Power District; and that the statements in said application are true to the best of his knowledge and belief.

Jay M. Pilant

Subscribed in my presence and sworn to before me this 1st day of March, 1982.

Colleen M. Kuta
NOTARY PUBLIC

COLLEEN M. KUTA
GENERAL
NOTARY
COMMISSION
EXPIRES
AUG. 4, 1985
STATE OF NEBRASKA

EA REPORT NPP11-4
REVISION 0

COOPER NUCLEAR STATION
BROWNVILLE, NEBRASKA
SEMI-ANNUAL OPERATING REPORT
JULY THROUGH DECEMBER 1981

PREPARED FOR

NEBRASKA PUBLIC POWER DISTRICT
P. O. BOX 499
COLUMBUS, NEBRASKA 68601

PREPARED BY

ECOLOGICAL ANALYSTS, INC.
MIDWEST REGIONAL OFFICE
1535 LAKE COOK ROAD
NORTHBROOK, ILLINOIS 60062

Prepared by: M. J. St. Peter
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Approved by: V. A. Krause
V. A. Krause, Director, Air Sciences

24 February 1982

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1. INTRODUCTION

Ecological Analysts, Inc. (EA) has prepared this semiannual operating report for the Nebraska Public Power District to comply with the Cooper Nuclear Station Environmental Technical Specifications to the NRC (Section 5.4.1.b).

This report estimates the radiological doses to the area surrounding the Cooper nuclear facility from routine radiation effluent releases. The dose estimates are based upon the atmosphere dispersion as monitored at the facility.

The report provides a summary of the meteorological data collected during the second six months of 1981. This is followed by estimates of the dispersion characteristics for the period based on the computer model XOQDOQ.

Section 4 reports on the effluent releases and waste disposal at the facility. Dose estimates of gamma radiation due to gaseous releases are presented in Section 5, and individual and population dosages from liquid effluents in Section 6.

Four appendixes are included in the report. The appendixes present in tabular form the data used in the report tables and figures. Additional tables of radiological doses not found in the body of the report also are presented.

2. METEOROLOGICAL DATA SUMMARY

The meteorological data collected at the Cooper Nuclear Station during the second half of 1981 are summarized in Tables 2-1 and 2-2. These tables were compiled from the monthly data tables presented in Appendix A. Table 2-1 summarizes the data recovery for each of the meteorological parameters. Table 2-2 summarizes the meteorological data. The annual statistics in Tables 2-1 and 2-2 are obtained using the data presented in Appendix A of this report and the Cooper Nuclear Station Semiannual Operating Report, January - June 1981 (NPPD 1981).

2.1 THIRD QUARTER (July - September 1981)

Data recovery for the third quarter was greater than 97 percent for each parameter except 35-ft ambient temperature. The majority of lost data was caused by charts running off the spool and recorder pens not inking. The 35-ft wind speed experienced abrupt fluctuations in the recorded data in September which resulted in some data loss. The quarterly data recovery for the 35-ft ambient temperature was 86.2 percent. This quarter experienced notable losses of data due to abrupt fluctuations in the recorded ambient temperature data.

METEOROLOGICAL SUMMARY--The prevailing wind direction for the third quarter was from the south. The next most common direction was north. This was true at both the 35- and 318-ft heights. The 35-ft wind speed was between 8 and 19 mph 34.0 percent of the time and less than 8 mph 65.7 percent of the time. The 318-ft wind speed was betweeen 8 and 19 mph 64.3 percent of the time and less than 8 mph 30.3 percent of the time. The third quarter of 1981 was cooler and slightly wetter than the climatological normal for Auburn, Nebraska, the closest National Weather Service Climatic Station (10 miles west of the plant site).

ATMOSPHERIC STABILITY--Differential temperature is measured between both the 318-35 ft and 318-155 ft levels. Atmospheric stability is derived from the 318-35 ft differential temperature data and is reduced to the seven Pasquill stability categories for use in the joint frequency of wind speed and wind direction analysis. The grand total joint frequency of occurrence given in the lower right hand corner of the joint frequency of occurrence by atmospheric stability tables is used to determine the frequency of occurrence of each stability class. The grand total joint frequency of occurrence for the 318-ft wind speed vs. 318-ft wind direction by stability class is normalized to 100 percent for reporting. Based on the joint frequency tables, the atmosphere was unstable 30.6 perecent of the time, neutral 29.4 percent of the time, and stable 40.0 percent of the time for the third quarter of 1981.

2.2 FOURTH QUARTER (October - December 1981)

Data recovery for the fourth quarter was greater than 95 percent for each parameter except 35-ft wind speed. The majority of lost data was caused by charts running off the spool and recorder pens not inking. The quarterly data recovery for the 35-ft wind speed was 87.7 percent. This parameter experienced notable losses of data due to abrupt fluctuations in the recorded data.

METEOROLOGICAL SUMMARY--The prevailing wind direction for the fourth quarter was from the south-southeast at the 35-ft height and from the south at the 318-ft height. The next most common wind direction was north at the 35-ft height and north-northwest at the 318-ft height. The 35-ft wind speed was between 8 and 19 mph 48.3 percent of the time and less than 8 mph 48.5 percent of the time. The 318-ft wind speed was between 8 and 19 mph 51.6 percent of the time and less than 8 mph 24.9 percent of the time. The fourth quarter of 1981 was cooler and drier than the climatological normal for Auburn, Nebraska.

ATMOSPHERIC STABILITY--Based on the joint frequency tables, the atmosphere was unstable 17.2 percent of the time, neutral 45.3 percent of the time, and stable 37.5 percent of the time.

2.3 SEMIANNUAL PERIOD (July - December 1981)

Data recovery for the second half of the year was 92 percent or greater for each parameter. Reasons for data loss were given under the quarterly headings.

METEOROLOGICAL SUMMARY--The prevailing wind direction for the second half of the year was south-southeast at the 35-ft height and south at the 318-ft height. The next most common direction was north at both the 35- and 318-ft heights. The 35-ft wind speed was between 8 and 19 mph 40.7 percent of the time and less than 8 mph 57.6 percent of the time. The 318-ft wind speed was between 8 and 19 mph 58.1 percent of the time and less than 8 mph 27.5 percent of the time. The second half of the year was cooler and drier than the climatological normal for Auburn, Nebraska.

ATMOSPHERIC STABILITY--Based on the joint frequency tables, the atmosphere was unstable 23.9 percent of the time, neutral 37.3 percent of the time, and stable 38.8 percent of the time.

2.4 ANNUAL PERIOD (January - December 1981)

Data recovery for the year was 93 percent or greater for each parameter. Reasons for data loss were given under the quarterly headings in this report and in the Cooper Nuclear Station Semiannual Operating Report, January - June 1981 (NPPD 1981).

METEOROLOGICAL SUMMARY--The prevailing wind direction for the year was south-southeast at the 35-ft height and south at the 318-ft height. The next most common direction was north at the 35-ft height and north-northwest at the 318-ft height. The 35-ft wind speed was between 8 and 19 mph 44.3 percent of the time and less than 8 mph 51.4 percent of the time. The 318-ft wind speed was between 8 and 19 mph 57.6 percent of the time and less than 8 mph 23.4 percent of the time. The annual period was cooler and much drier than the climatological normal for Auburn, Nebraska.

ATMOSPHERIC STABILITY--Based on the joint frequency tables, the atmosphere was unstable 27.1 percent of the time, neutral 35.5 percent of the time, and stable 37.4 percent of the time.

TABLE 2-1 RECOVERY STATISTICS FOR METEOROLOGICAL DATA COLLECTED AT COOPER NUCLEAR STATION, BROWNVILLE, NEBRASKA, JULY - DECEMBER 1981.

Parameter	JUL	AUG	SEP	JUL-SEP	OCT	NOV	DEC	OCT-DEC	JUL-DEC	JAN-DEC
Wind speed										
318-ft	97.2%	98.3%	99.4%	98.3%	96.2%	97.1%	95.8%	96.4%	97.3%	97.1%
35-ft	99.9%	100.0%	95.6%	98.5%	90.1%	79.9%	93.0%	87.7%	93.1%	95.6%
Wind direction										
318-ft	97.2%	97.8%	98.3%	97.8%	96.2%	97.1%	94.2%	95.8%	96.8%	97.2%
35-ft	99.9%	100.0%	94.4%	98.1%	89.9%	99.6%	97.2%	95.5%	96.8%	96.1%
35-ft ambient temperature	78.4%	90.9%	89.6%	86.2%	96.8%	98.1%	99.6%	98.1%	92.2%	93.8%
Differential temperature										
318-35 ft	100.0%	98.5%	96.2%	98.3%	99.6%	98.8%	96.9%	98.4%	98.3%	98.8%
318-155 ft	100.0%	98.5%	96.1%	98.2%	99.6%	99.0%	96.9%	98.5%	98.4%	98.8%
Precipitation	96.9%	97.4%	99.3%	97.9%	98.8%	96.8%	100.0%	98.6%	98.2%	95.1%

(a) Percentage data recovery is defined as the number of valid data hours in the period divided by the maximum possible data hours in the period multiplied by 100.

TABLE 2-2 SUMMARY OF METEOROLOGICAL DATA MEASURED AT THE COOPER NUCLEAR STATION, BROWNVILLE, NEBRASKA, JULY-DECEMBER 1981.

	JUL	AUG	SEP	JUL-SEP	OCT	NOV	DEC	OCT-DEC	JUL-DEC	JAN-DEC
318-ft Wind										
Mean speed (mph)	10	9	13	11	15	14	12	14	12	13
Maximum speed (mph)	28	24	28	28	37	36	37	37	37	39
Direction of maximum speed	SSE	NNW	NNW	SSE, NNW	NW	N	NW	NW	NW	N
Date of maximum speed	24 JUL	7 AUG	26 SEP	24 JUL, 26 SEP	17 OCT	19 NOV	3 DEC	17 OCT, 3 DEC	17 OCT, 3 DEC	10 FEB
Prevailing direction[a]				SSE-SSW				SSE-SSW	SSE-SSW	SSE-SSW
35-ft Wind										
Mean speed (mph)	7	6	7	7	9	9	8	9	8	9
Maximum speed (mph)	21	17	20	21	26	25	28	28	28	31
Direction of maximum speed	WSW	NNW, SSW-SW	NW-NNW	WSW	WNW	WNW, NNW	NW	NW	NW	SSW
Date of maximum speed	17 JUL	7, 14 AUG	26 SEP	17 JUL	17 OCT	18, 19 NOV	3 DEC	3 DEC	3 DEC	3 APR
Prevailing direction[a]				SSE-SSW				SE-S	SE-S	SE-S
35-ft Ambient Temperature (C)										
Mean	23.7	21.6	18.5	21.2	10.9	5.9	-3.4	4.4	12.2	10.6
Departure from normal[b]	-1.4	-2.7	-0.8	-1.7	-2.9	0.6	-2.3	-1.6	-2.2	-1.0
Maximum	35.2	31.7	31.9	35.2	25.3	18.4	13.7	25.3	35.2	35.2
Date of maximum	14 JUL	30 AUG	29 SEP	14 JUL	5 OCT	17 NOV	7 DEC	5 OCT	14 JUL	14 JUL
Minimum	14.2	12.1	2.0	2.0	-4.5	-7.5	-28.6	-28.6	-28.6	-28.6
Date of minimum	28 JUL	11 AUG	18 SEP	18 SEP	23 OCT	21 NOV	19 DEC	19 DEC	19 DEC	19 DEC
Precipitation (in.)										
Total	4.77	4.87	3.15	12.79	1.84	1.58	0.43	3.85	16.64	23.60
Departure from normal[b]	0.66	0.39	-0.92	0.13	-0.68	0.42	-0.62	-0.88	-0.75	-11.70
Rain days[c]	10	11	3	24	6	2	2	10	34	69
Maximum in a single day	0.88	1.67	1.17	1.67	1.13	1.44	0.27	1.44	1.67	1.67
Date	26 JUL	5 AUG	7 SEP	5 AUG	3 OCT	1 NOV	16 DEC	1 NOV	5 AUG	5 AUG
Maximum in a single hour	0.45	0.73	0.75	0.75	0.41	0.35	0.05	0.41	0.75	0.75
Date	23 JUL	5 AUG	7 SEP	7 SEP	3 OCT	1 NOV	16,27 DEC	3 OCT	7 SEP	7 SEP

(a) Prevailing direction is derived from the quarterly joint frequency tables, and is reported for the quarterly period only.
(b) The climatological normals were derived from NOAA climatological data for Auburn, Nebraska.
(c) Rain days are defined as a day in which 0.01 inch of rain or rain equivalent of frozen precipitation has fallen.

3. DISPERSION CHARACTERISTICS (X/Q) ISOPLETHS

Estimates of the atmospheric dispersion characteristics (X/Q) for the second half of 1981 were made using the NRC supplied model XOQDOQ (U.S. NRC 1977b). Key input to the model is the joint frequency distribution (JFT) of atmospheric stability, wind speed, and wind direction. The JFT was determined from the meteorological data and is presented in Appendix B. This section presents the model calculated locations of equal dispersion for both the 5- and 50-mile radius circles from the Cooper Nuclear Station. The periods covered are July - September, October - December, July - December, and January - December. Separate figures are given for the vent stack and elevated release options.

The data tables from which the isopleth figures were derived are presented in Appendix C and the XOQDOQ computer model is discussed in Appendix D. The XOQDOQ computer model implements the models and assumptions of Regulatory Guide 1.111 (U.S. NRC 1976).

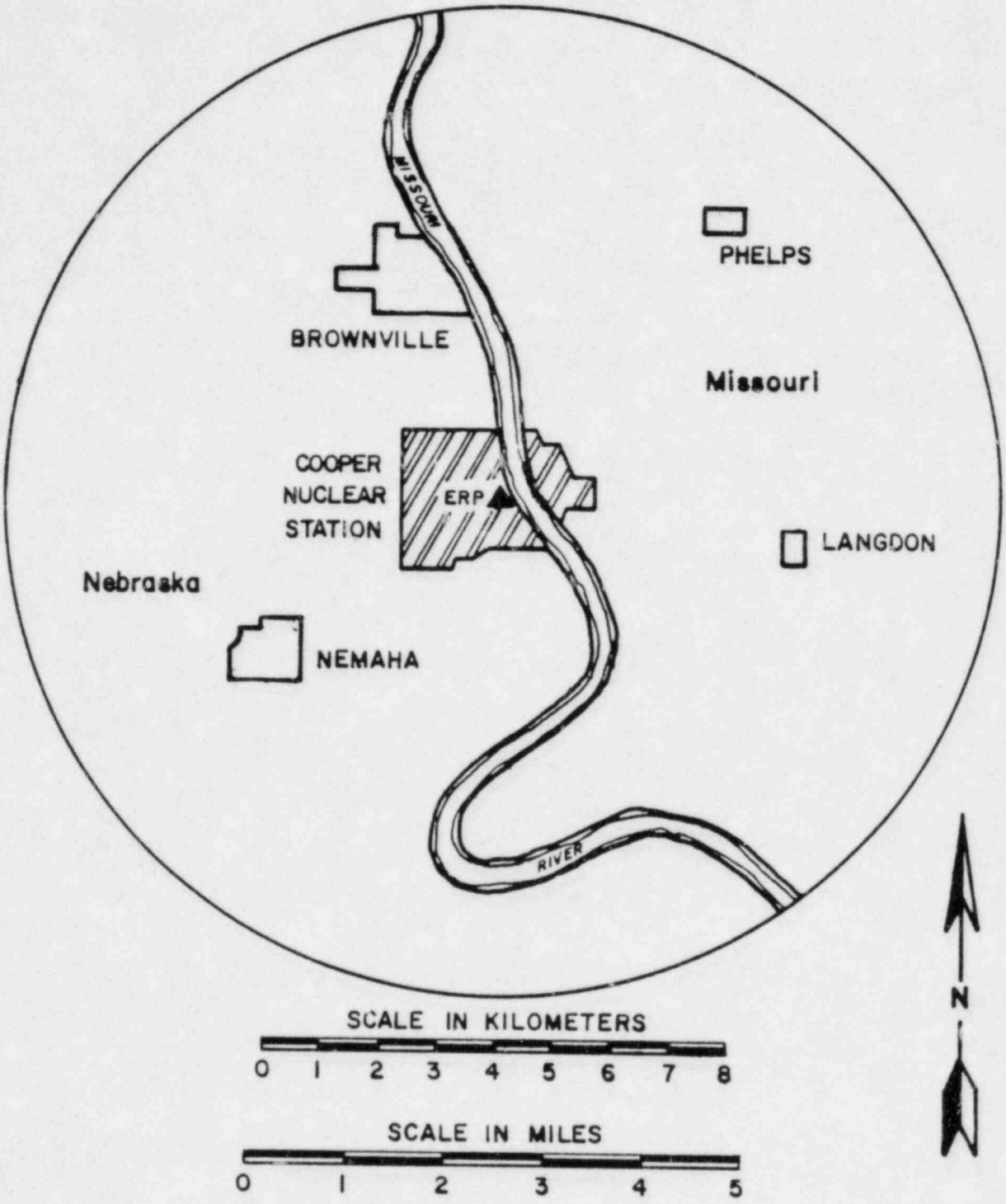

Figure 3-1 Cooper Nuclear Station, Brownville, Nebraska and surrounding area in the range of 0-5 miles.

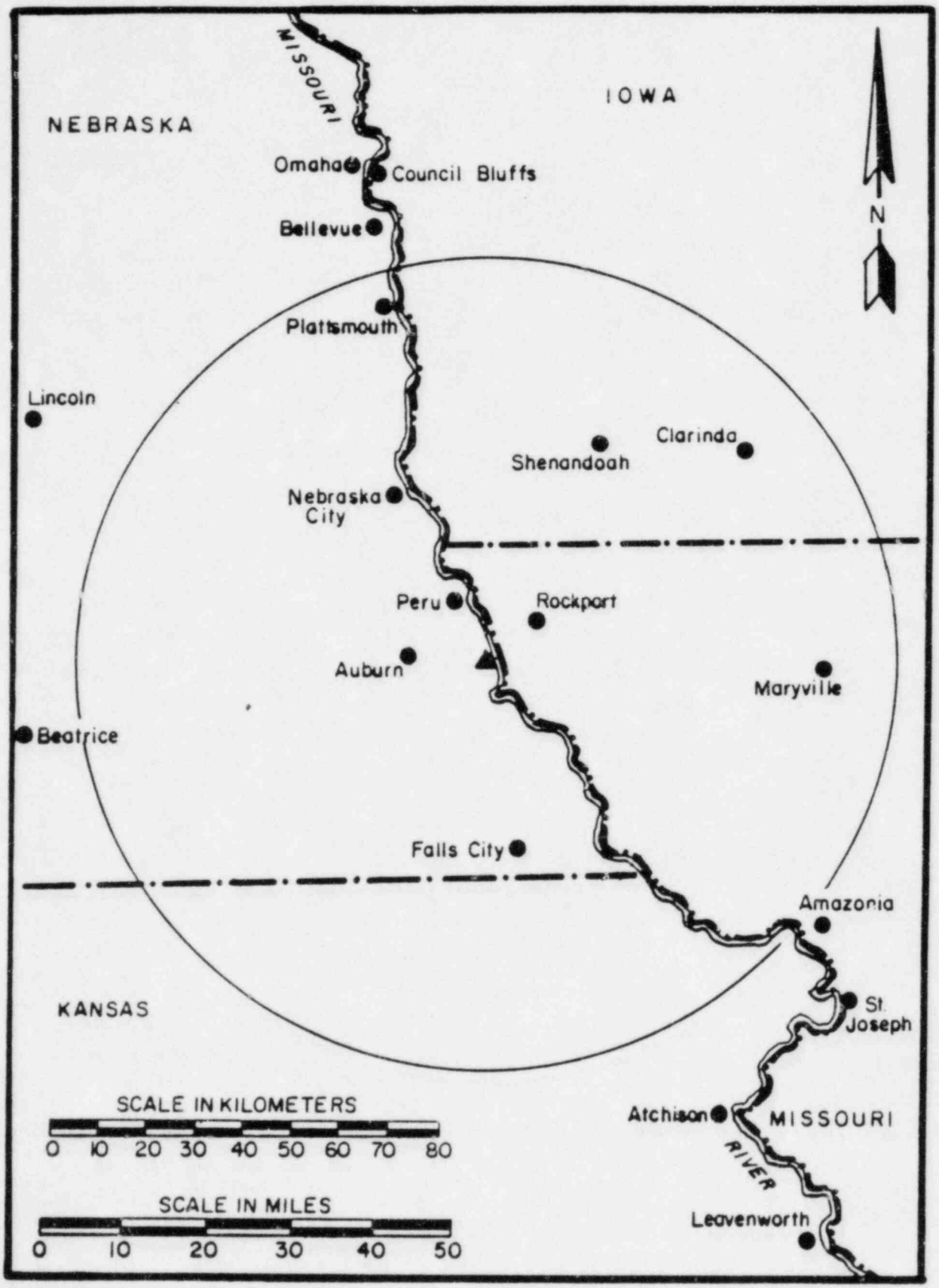

Figure 3-2 Cooper Nuclear Station, Brownville, Nebraska and surrounding area in the range of 0-50 miles.

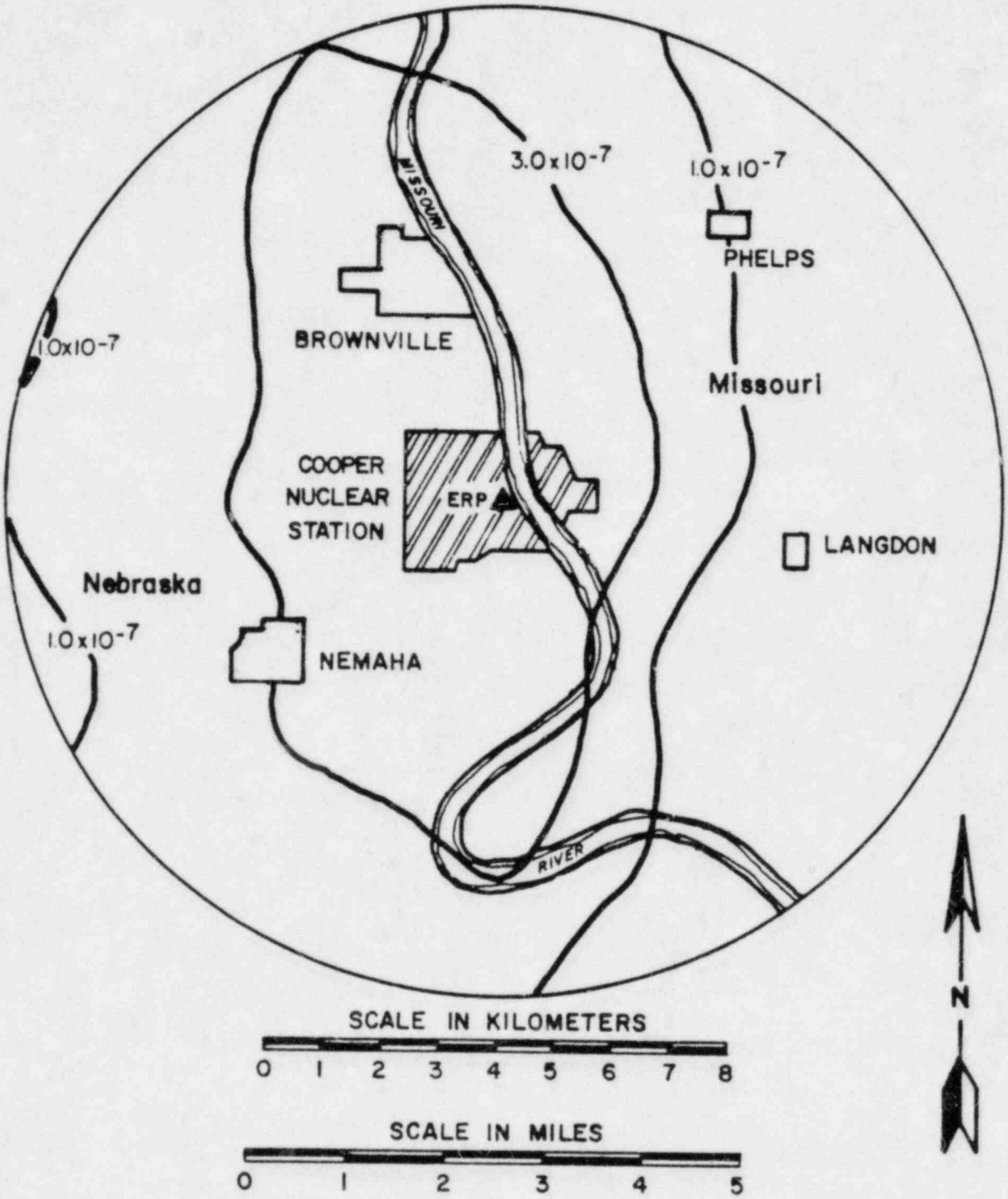

Figure 3-3 Estimated concentration to emission ratio, vent release point, Cooper Nuclear Station, Brownville, Nebraska, 0-5 miles, July-September 1981.

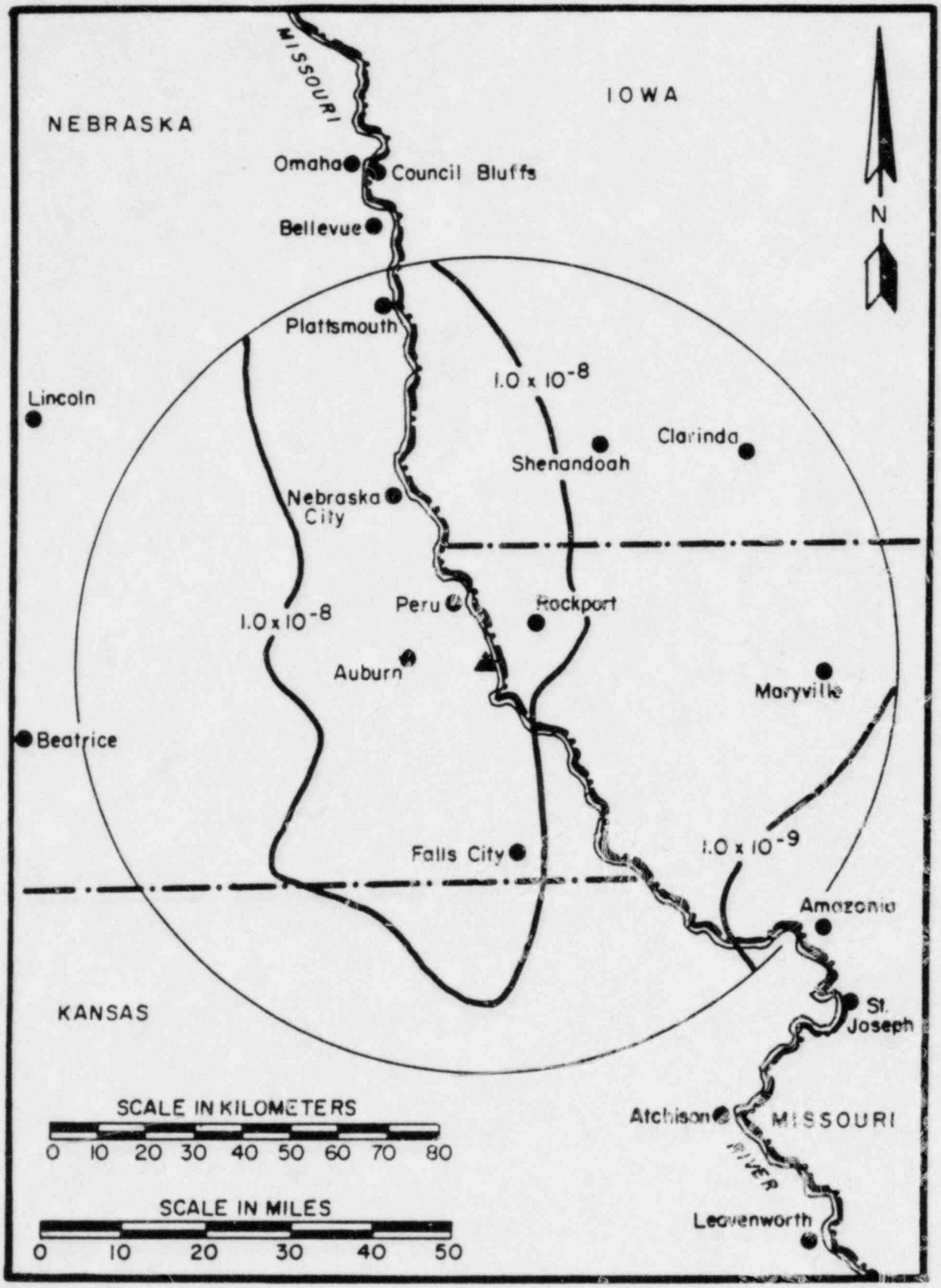

Figure 3-4 Estimated concentration to emission ratio, vent release point, Cooper Nuclear Station, Brownville, Nebraska, 0-50 miles, July-September 1981.

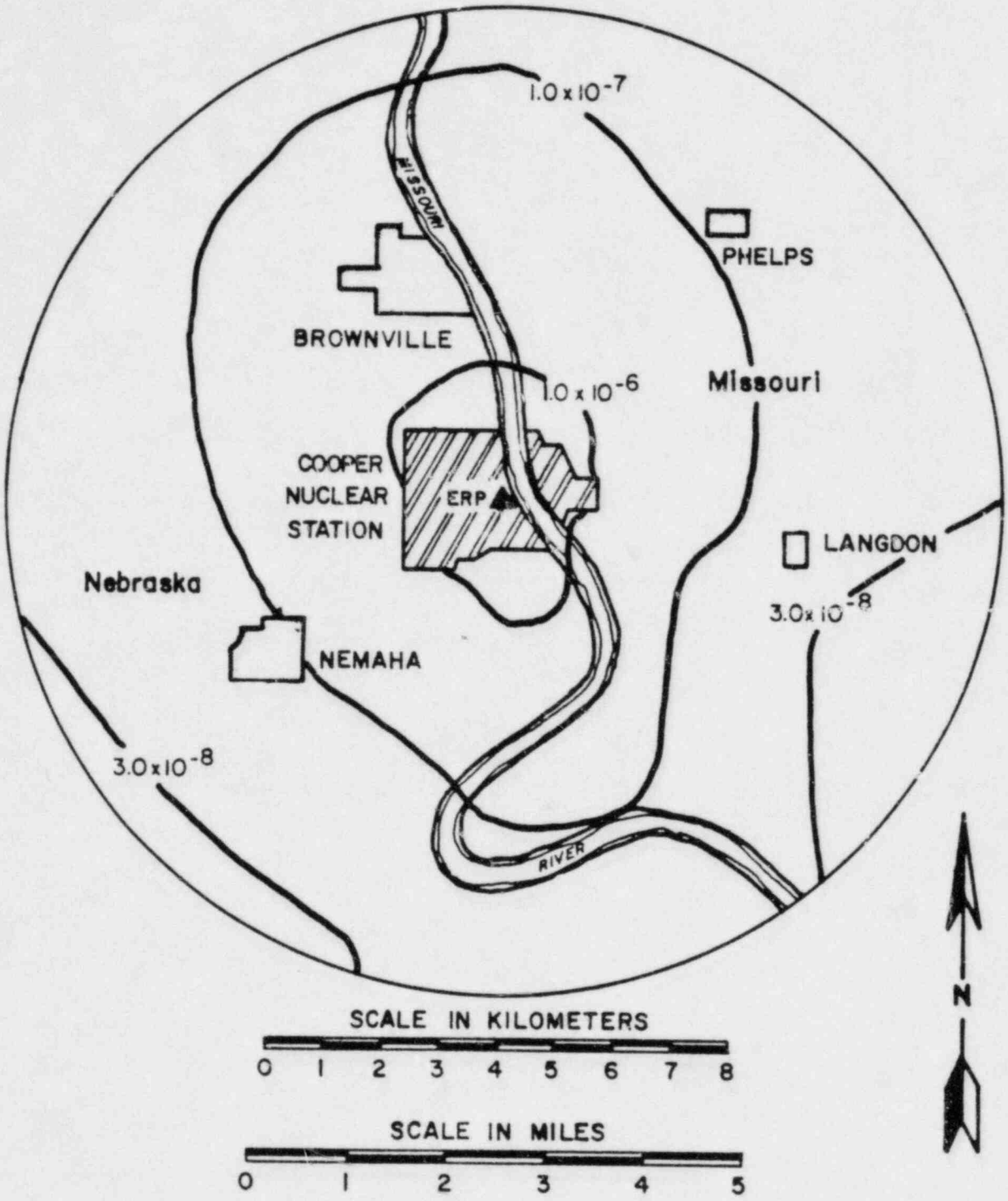

Figure 3-5 Estimated concentration to emission ratio, elevated release point, Cooper Nuclear Station, Brownville, Nebraska, 0-5 miles, July-September 1981.

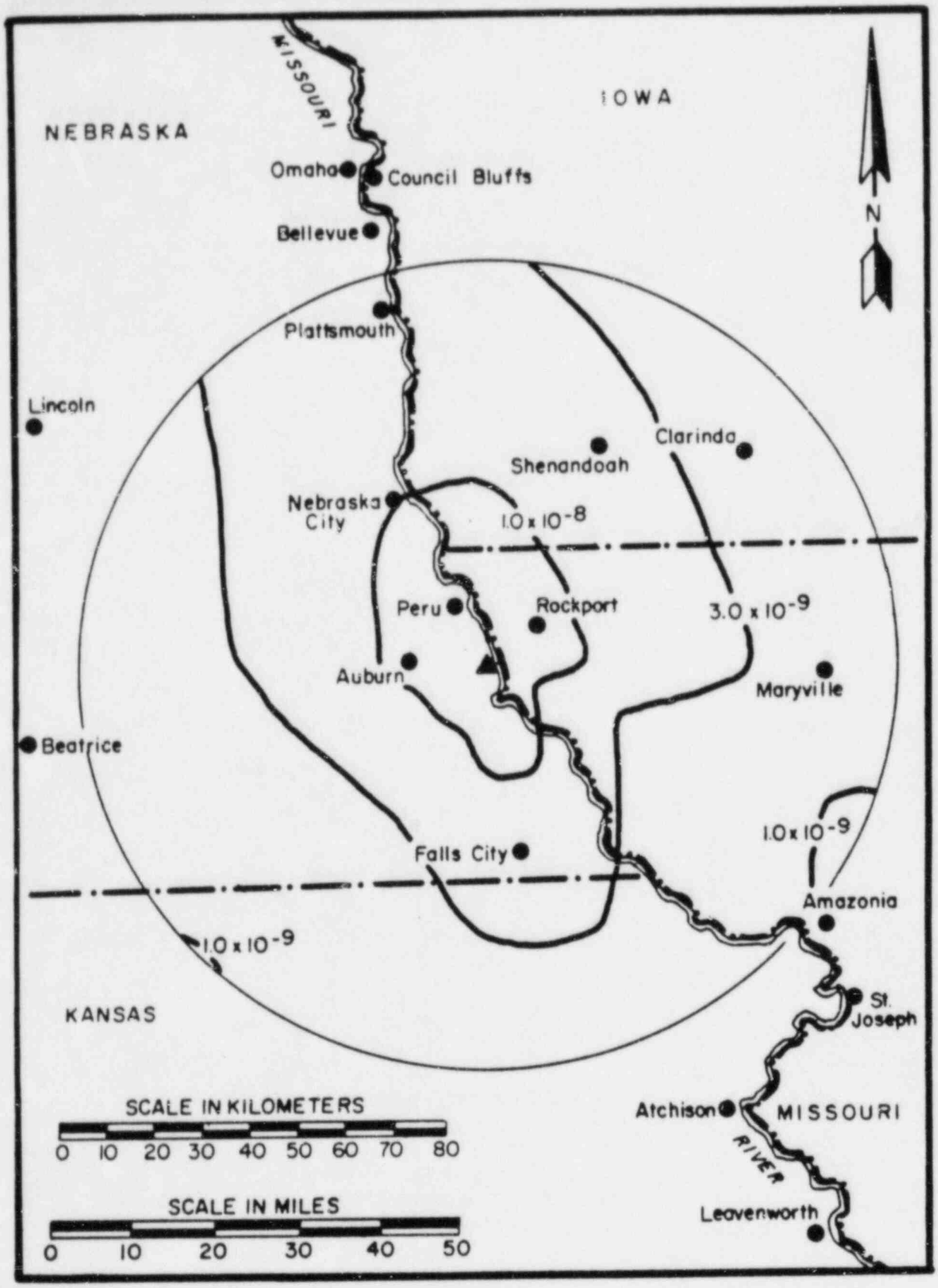

Figure 3-6 Estimated concentration to emission ratio, elevated release point, Cooper Nuclear Station, Brownville, Nebraska, 0-50 miles, July-September 1981.

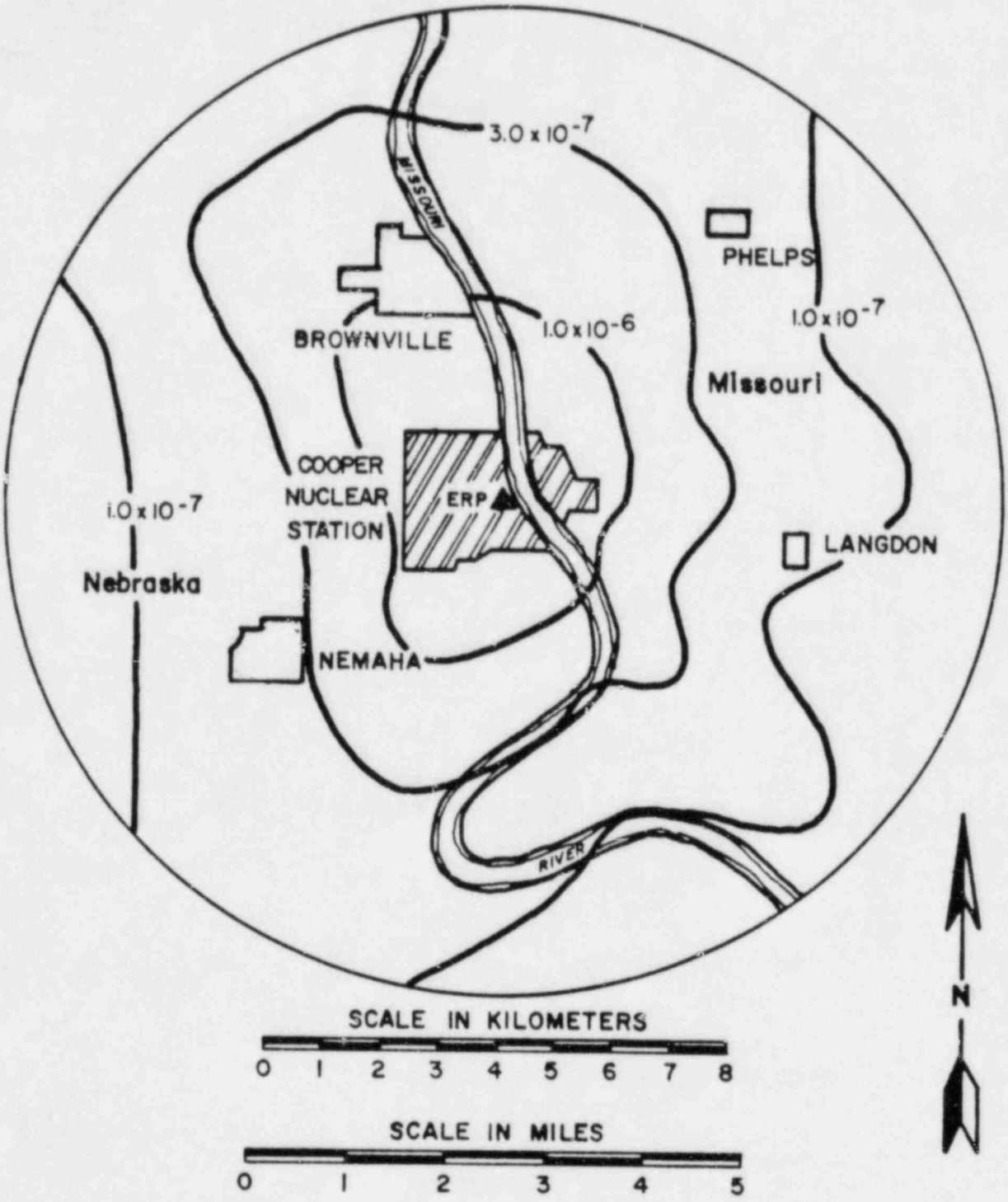

Figure 3-7 Estimated concentration to emission ratio, vent release point, Cooper Nuclear Station, Brownville, Nebraska, 0-5 miles, October-December 1981.

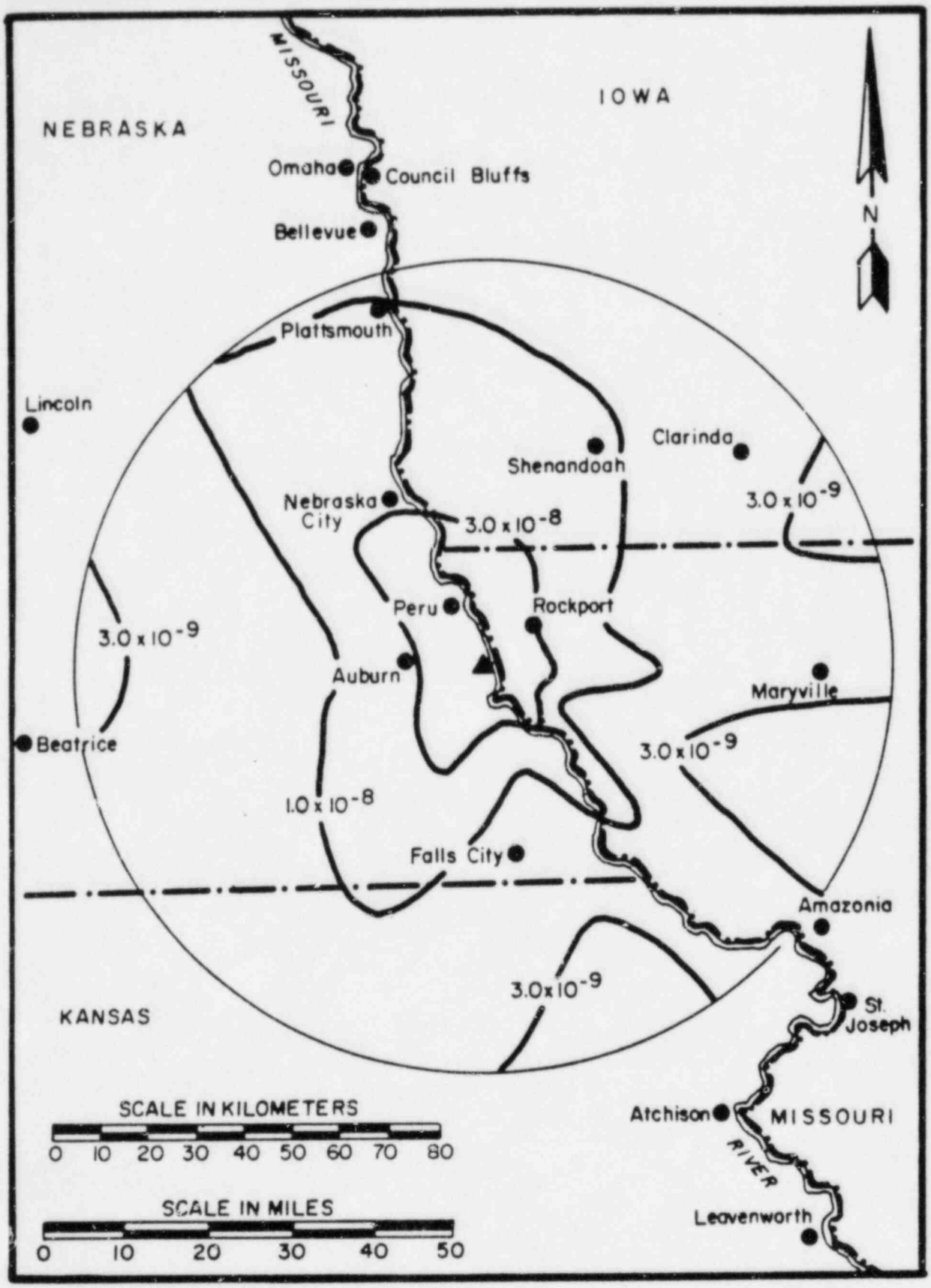

Figure 3-8 Estimated concentration to emission ratio, vent release point, Cooper Nuclear Station, Brownville, Nebraska, 0-50 miles, October-December 1981.

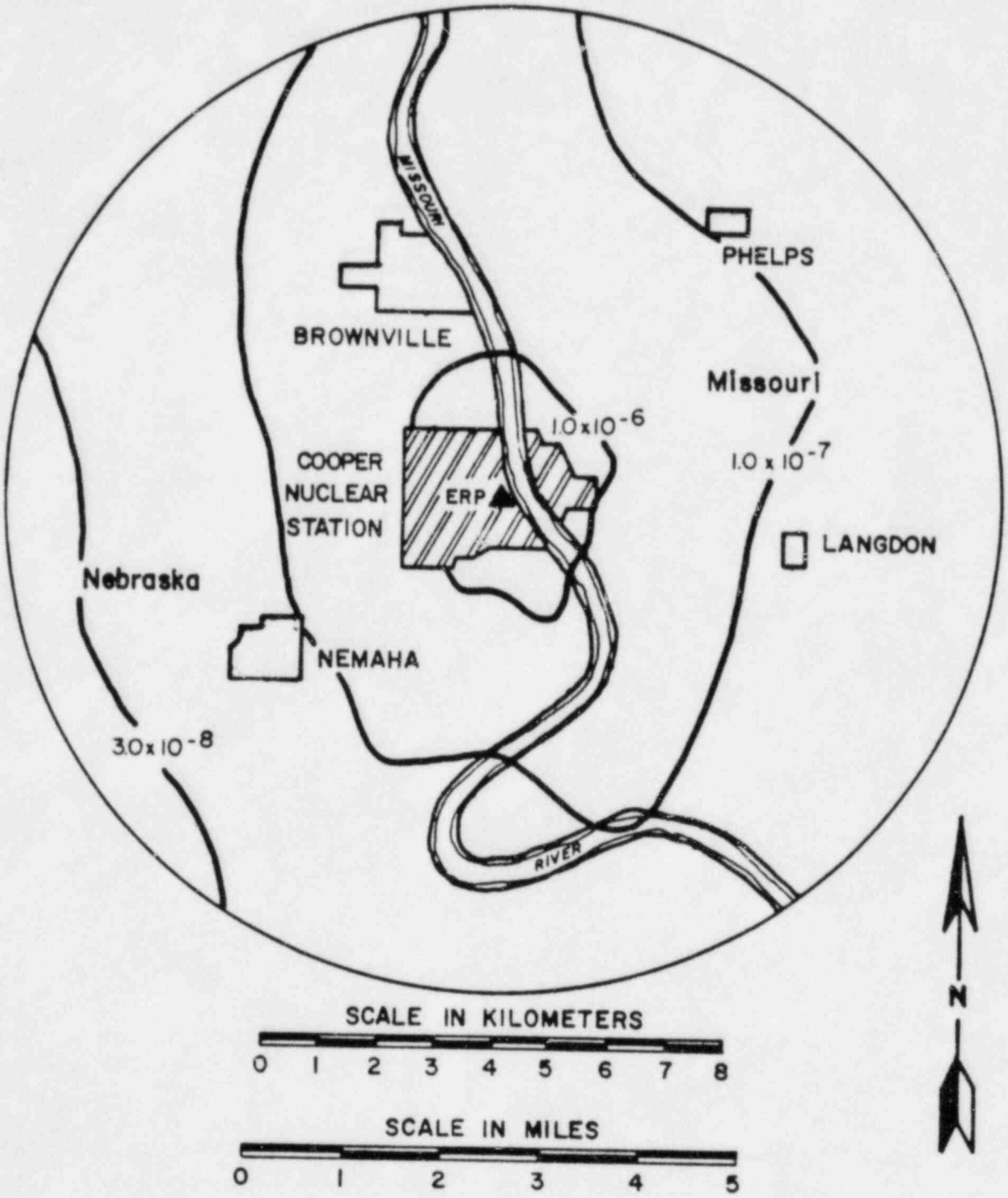

Figure 3-9 Estimated concentration to emission ratio, elevated release point, Cooper Nuclear Station, Brownville, Nebraska, 0-5 miles, October-December 1981.

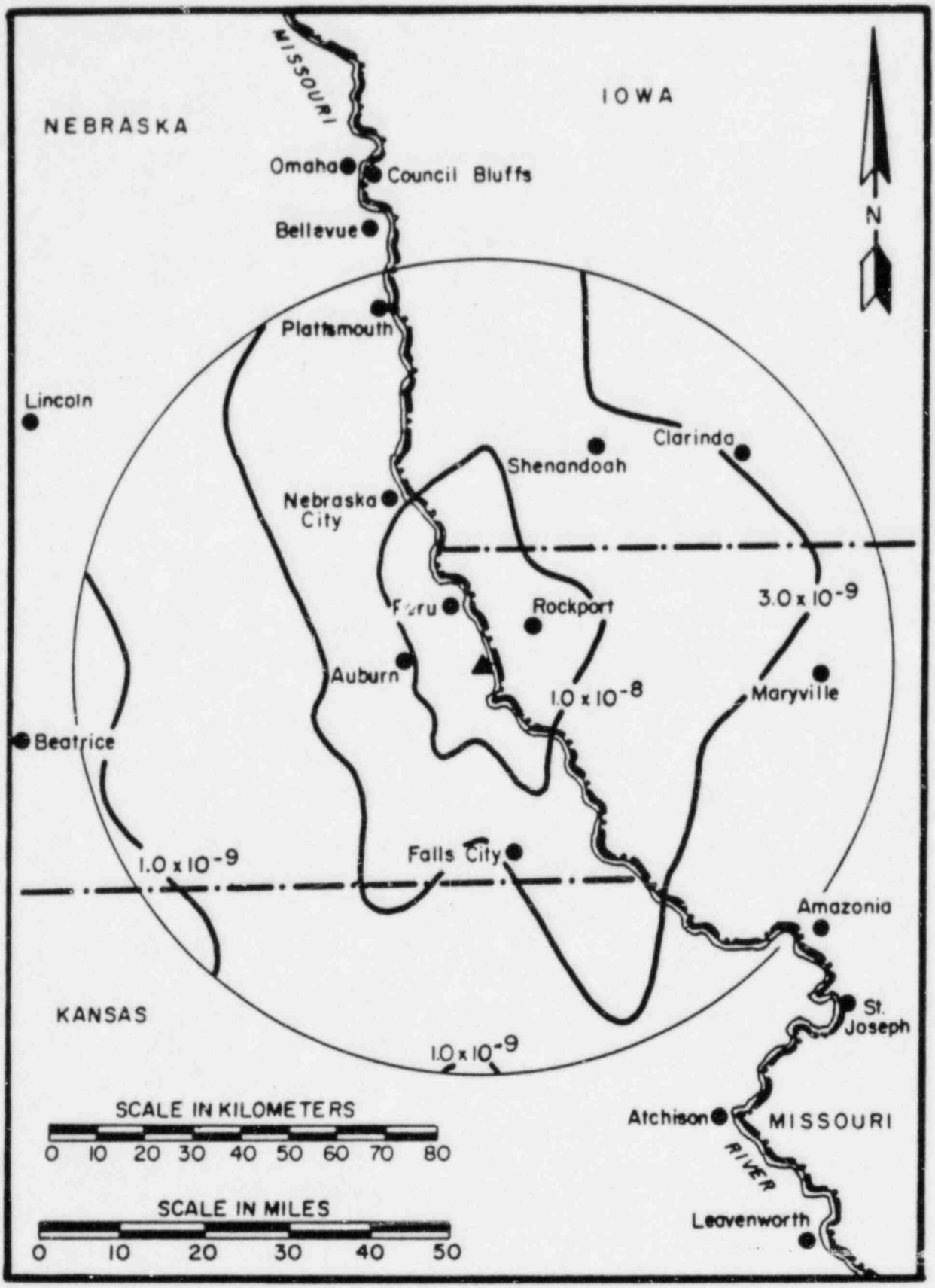

Figure 3-10 Estimated concentration to emission ratio, elevated release point, Cooper Nuclear Station, Brownville, Nebraska, 0-50 miles, October-December 1981.

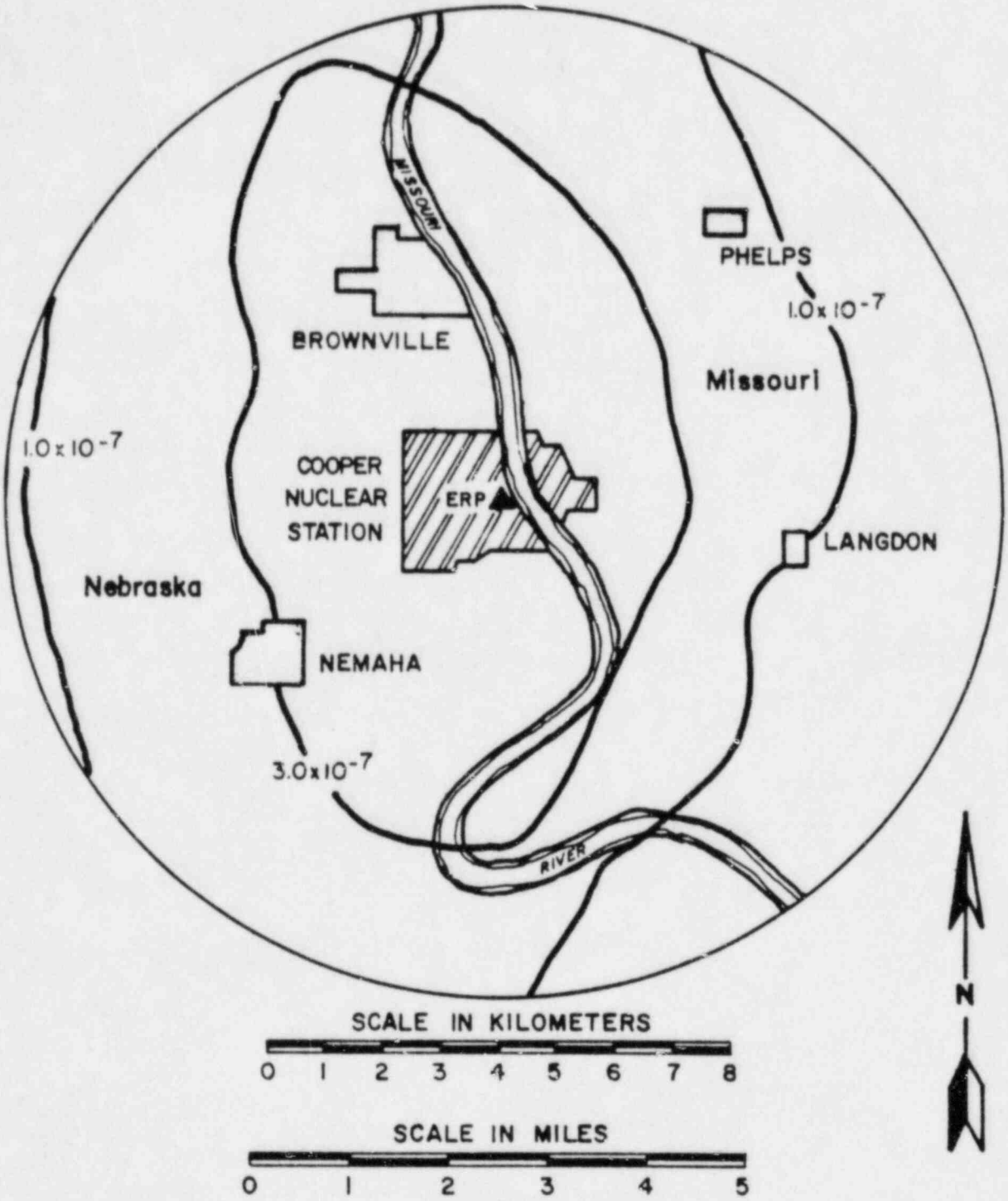

Figure 3-11 Estimated concentration to emission ratio, vent release point, Cooper Nuclear Station, Brownville, Nebraska, 0-5 miles, July-December 1981.

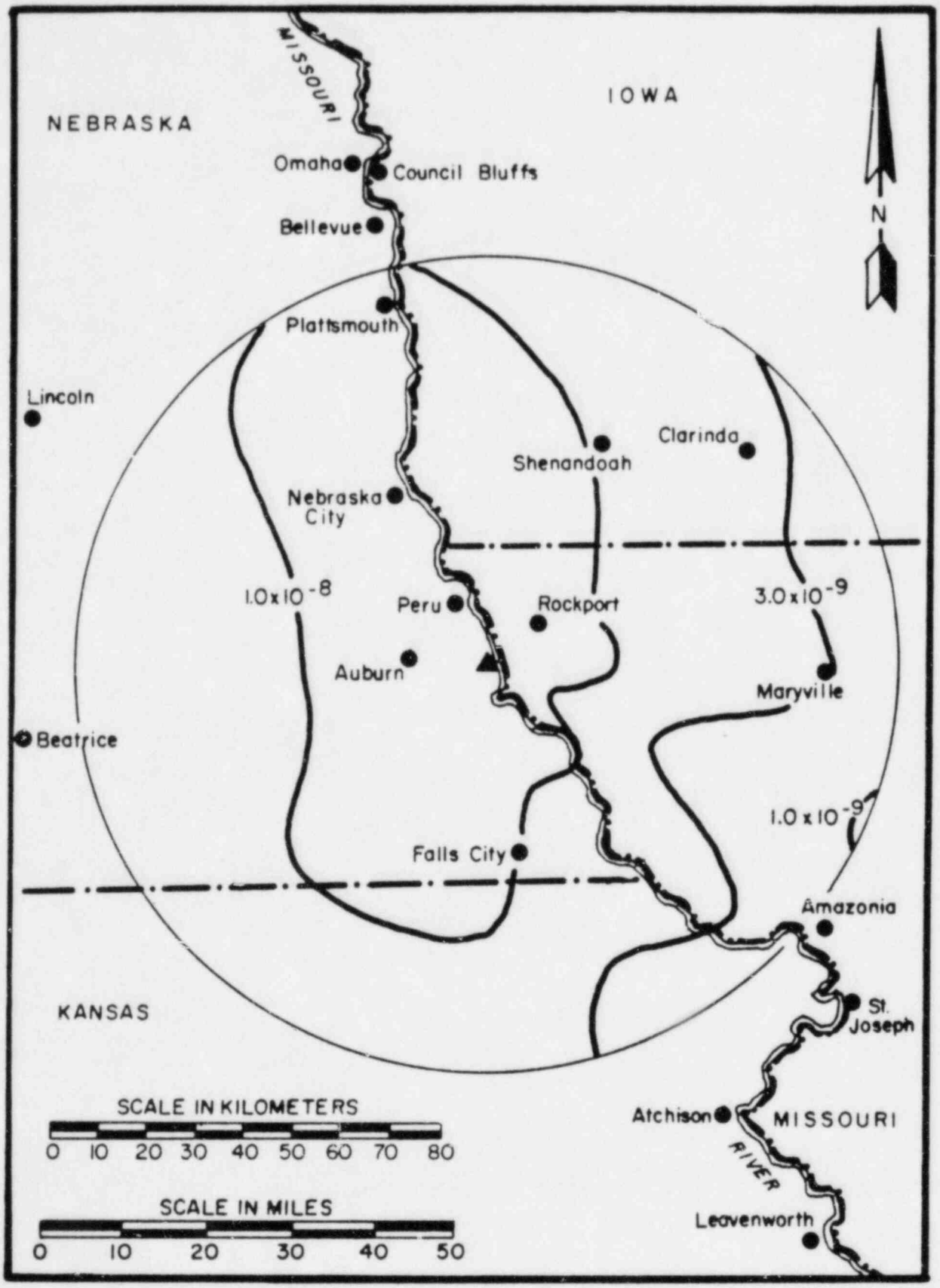

Figure 3-12 Estimated concentration to emission ratio, vent release point, Cooper Nuclear Station, Brownville, Nebraska, 0-50 miles, July-December 1981.

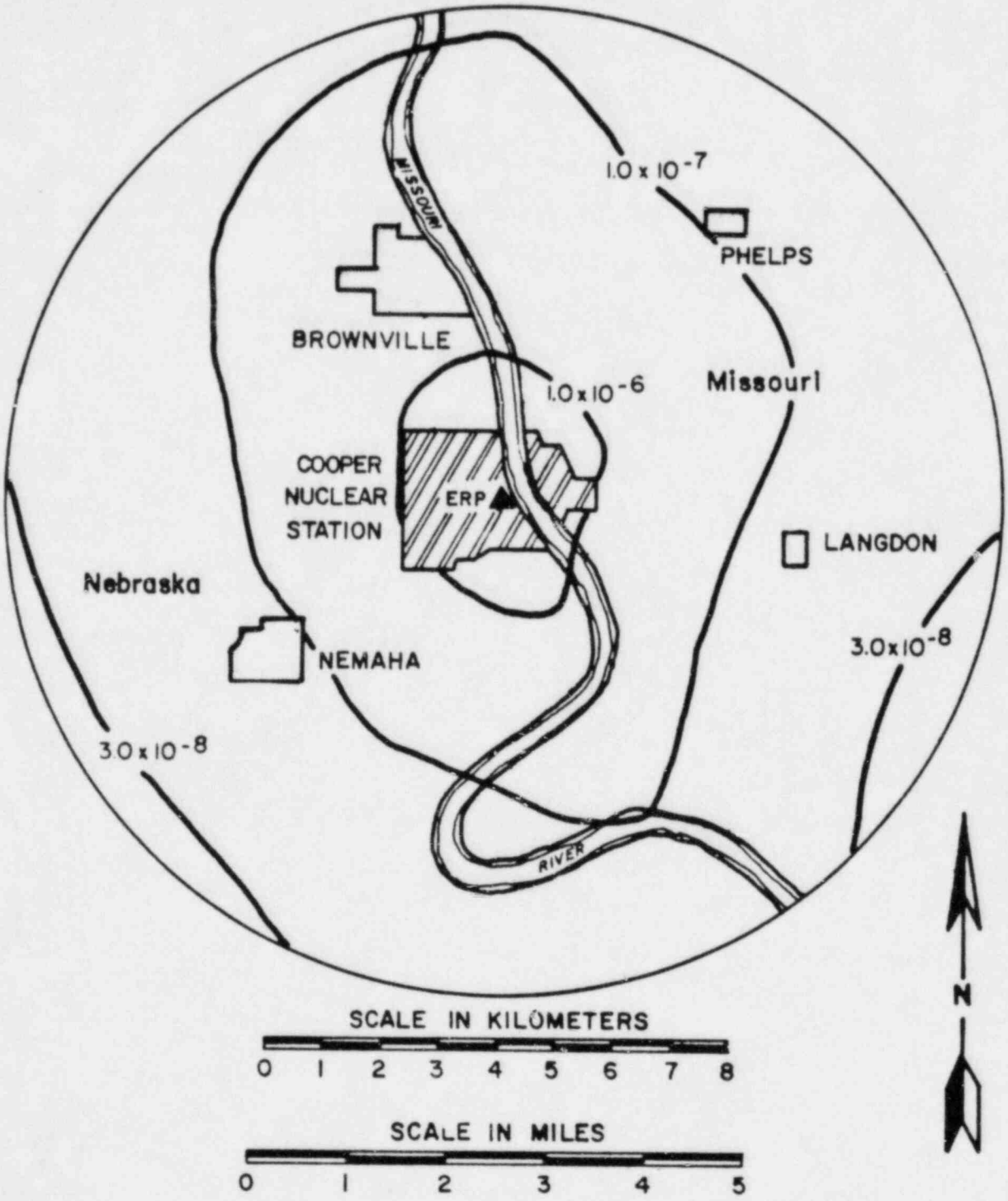

Figure 3-13 Estimated concentration to emission ratio, elevated release point, Cooper Nuclear Station, Brownville, Nebraska, 0-5 miles, July-December 1981.

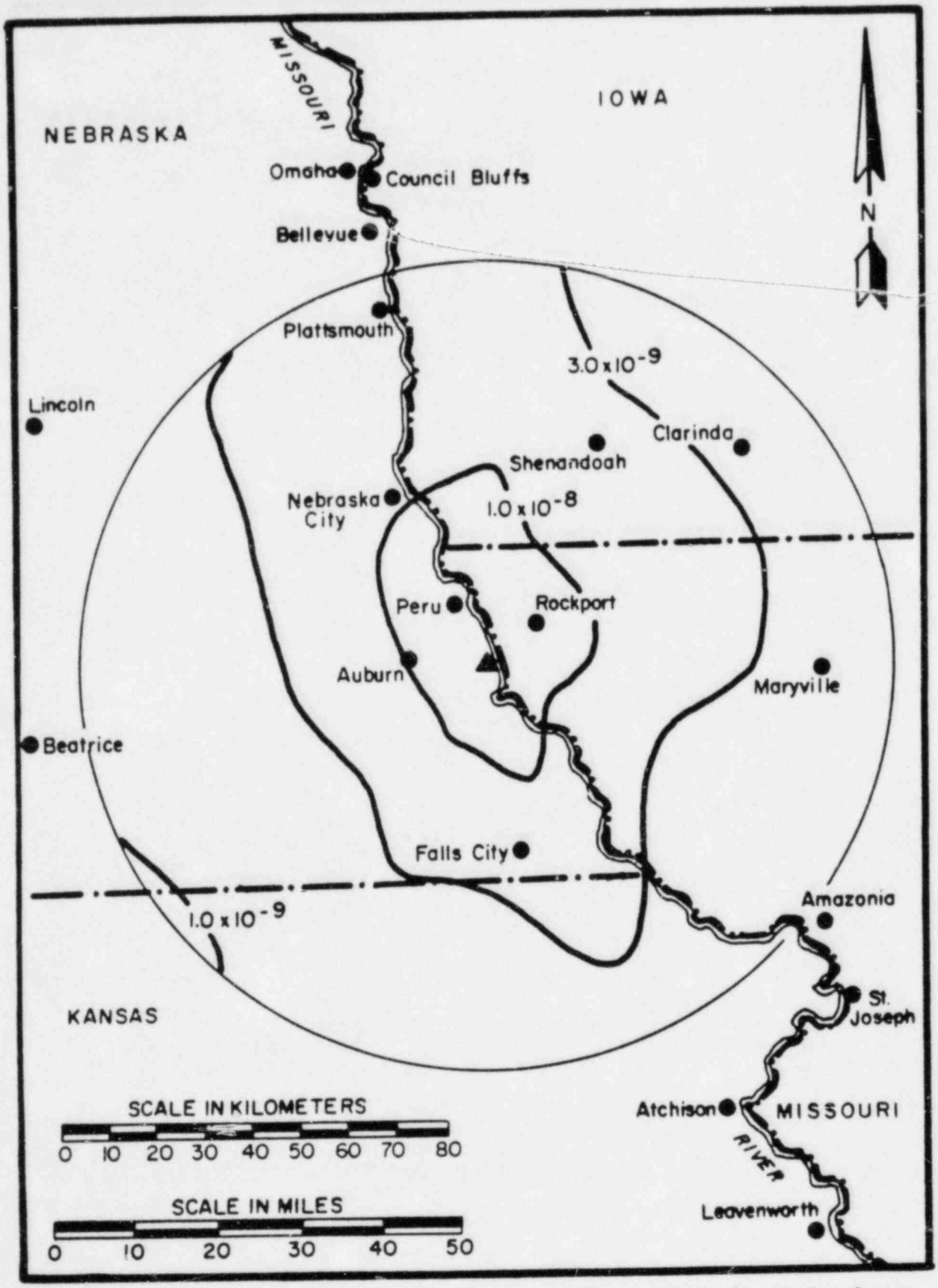

Figure 3-14 Estimated concentration to emission ratio, elevated release point, Cooper Nuclear Station, Brownville, Nebraska, 0-50 miles, July-December 1981.

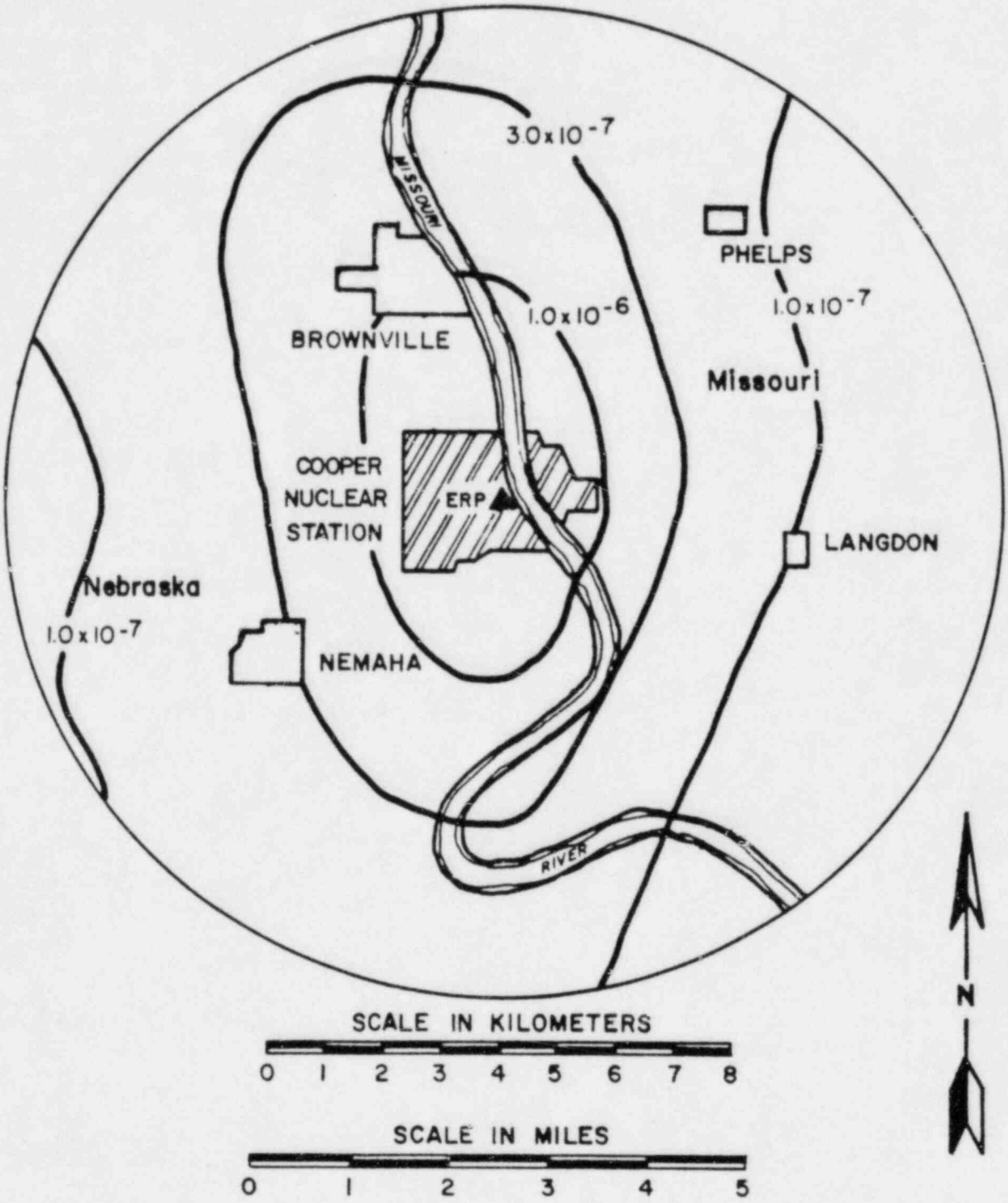

Figure 3-15 Estimated concentration to emission ratio, vent release point, Cooper Nuclear Station, Brownville, Nebraska, 0-5 miles, January-December 1981.

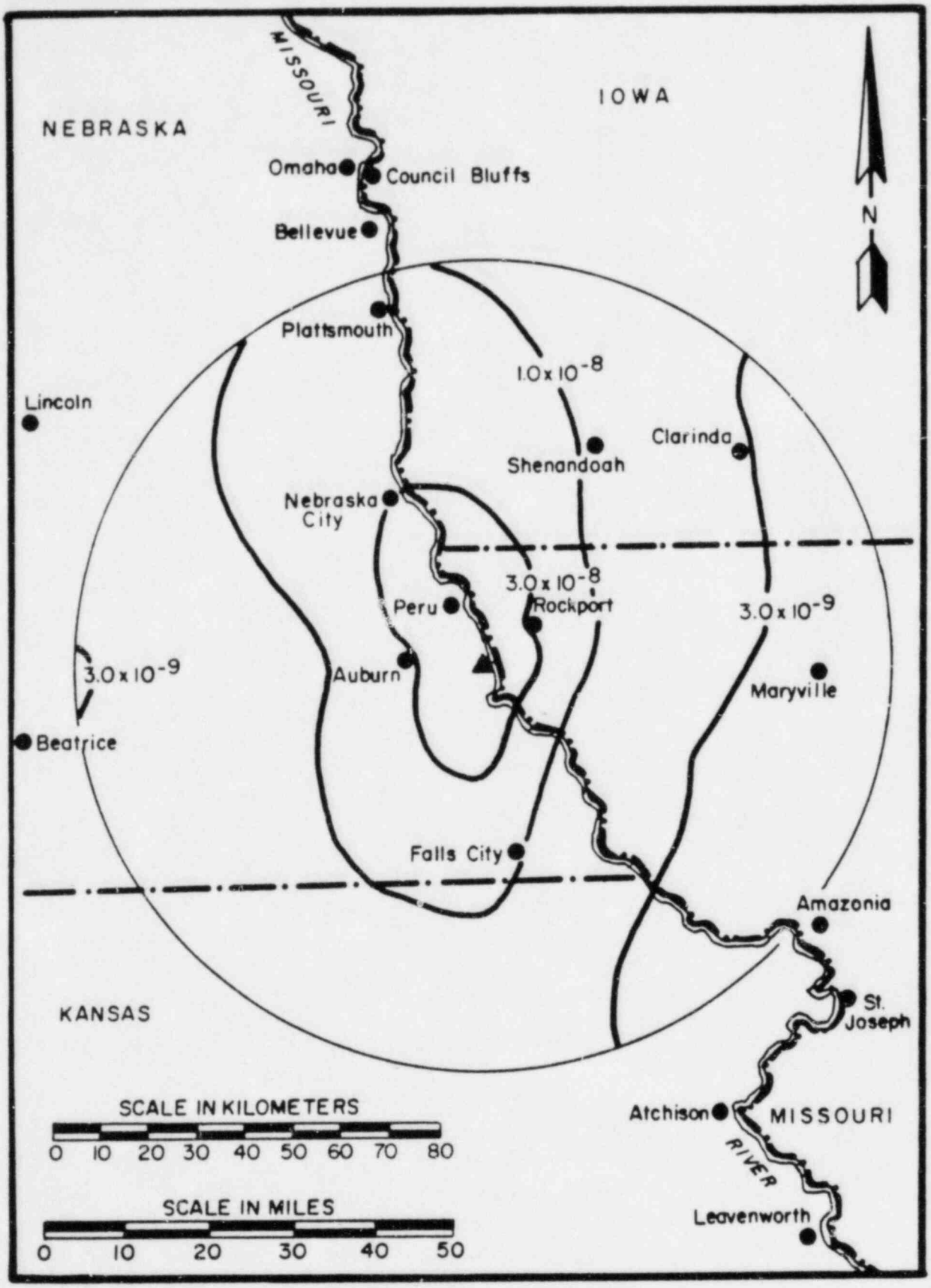

Figure 3-16 Estimated concentration to emission ratio, vent release point, Cooper Nuclear Station, Brownville, Nebraska, 0-50 miles, January-December 1981.

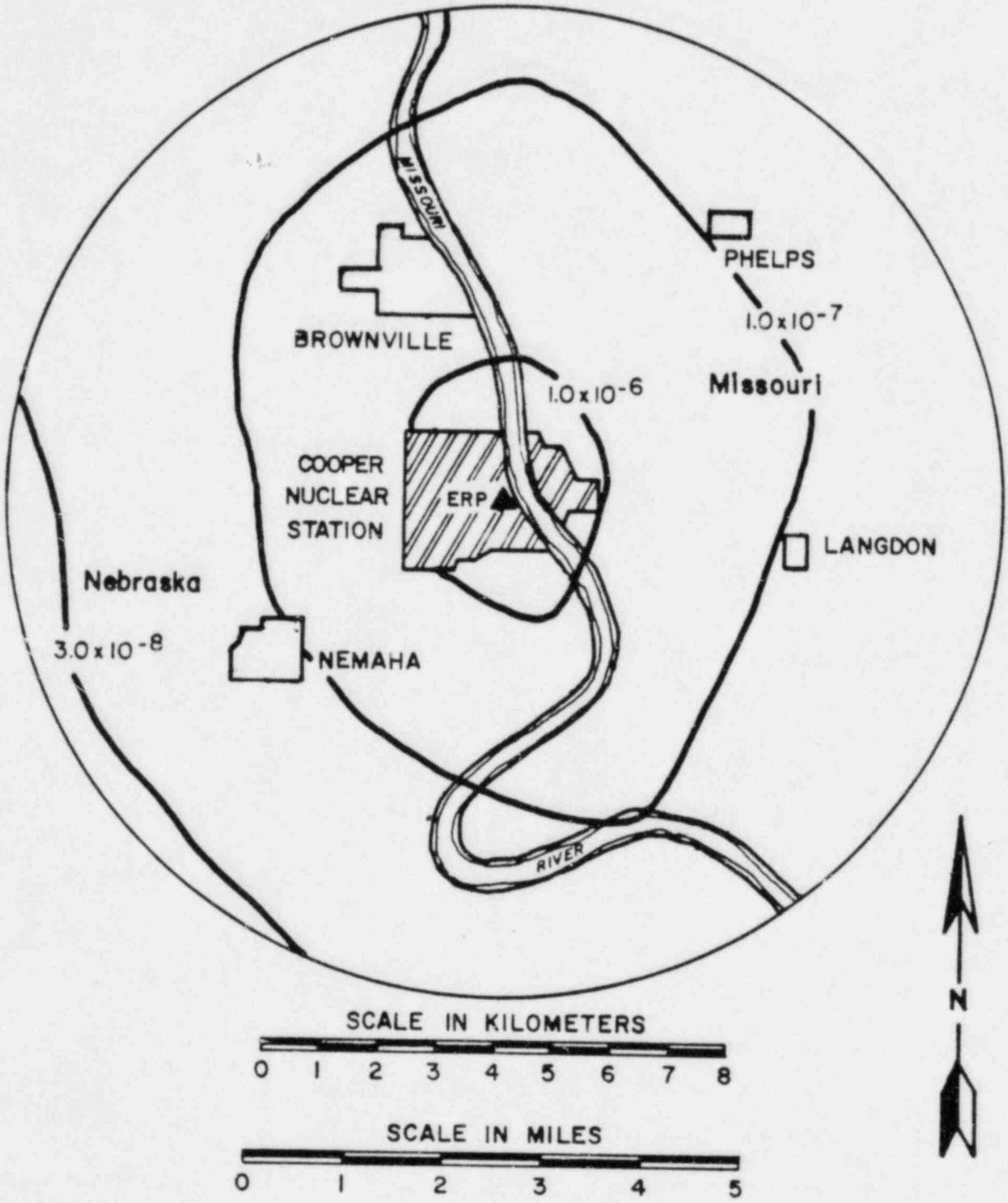

Figure 3-17 Estimated concentration to emission ratio, elevated release point, Cooper Nuclear Station, Brownville, Nebraska, 0-5 miles, January-December 1981.

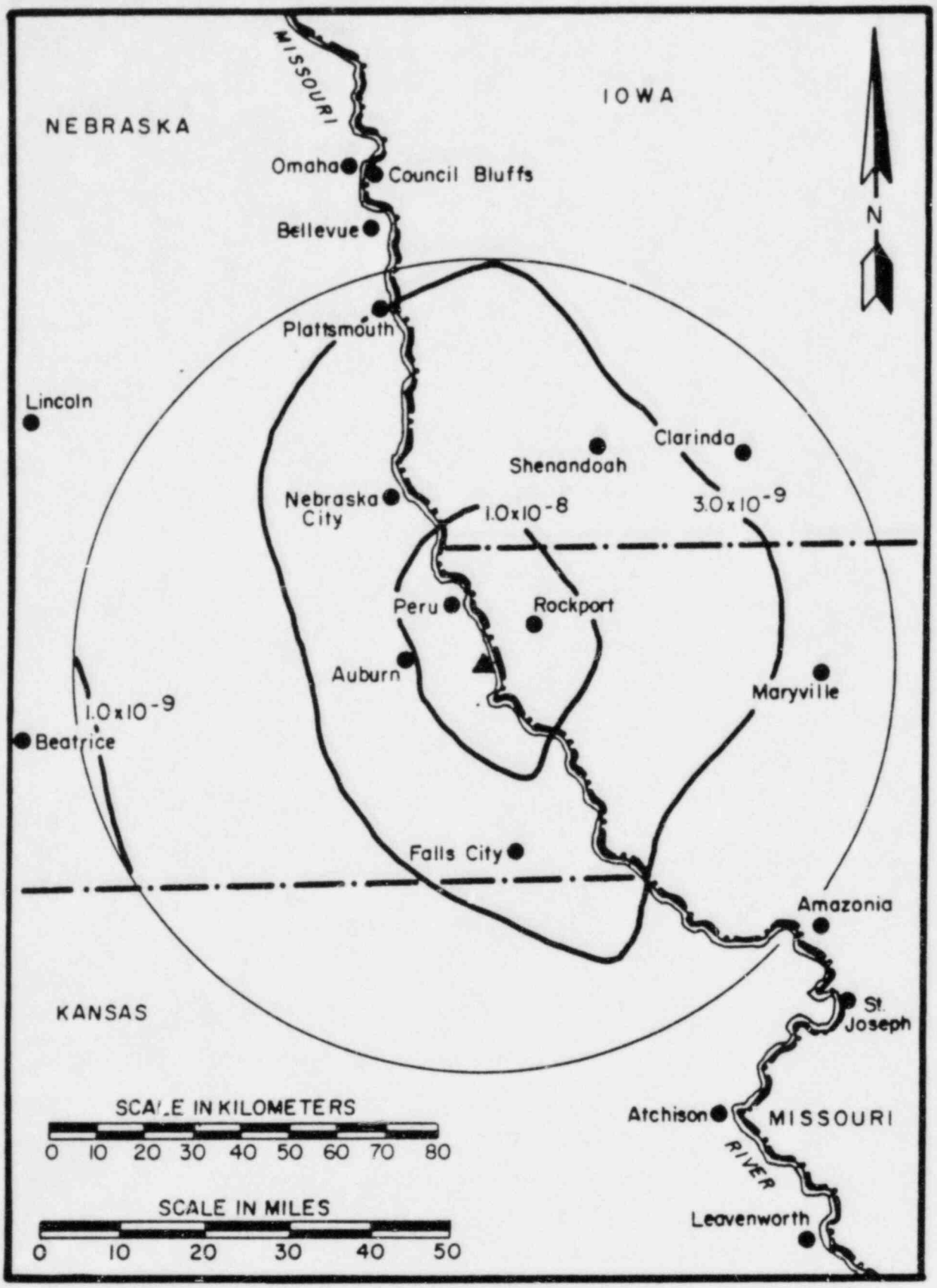

Figure 3-18 Estimated concentration to emission ratio, elevated release point, Cooper Nuclear Station, Brownville, Nebraska, 0-50 miles, January-December 1981.

4. EFFLUENT AND WASTE DISPOSAL (July - December 1981)

Cooper Nuclear Station effluent and waste disposal data are presented in the format prescribed by Regulatory Guide 1.21. Meteorological data required by Table 4A and B of Regulatory Guide 1.21 are in Appendix B.

Facility--Cooper Nuclear Station License--DPR-46

4.1 REGULATORY LIMITS

a. Fission and Activation Gases

Restrictions on gaseous activity release:

Maximum release rate of noble gases and tritium (except for halogens and particulates with half-lives >8 days):

$$Qs(2.5\overline{E}\gamma s + 1.25\overline{E}\beta s) + Qv(7.3\overline{E}\gamma v + 77\overline{E}\beta v) \leq 0.16$$

When averaged over a calendar quarter.

γ - gamma
β - beta

where

Qs and Qv = the quarterly release rates in curies/second of radioisotopes from the stack, reactor building, and turbine building vents
$\overline{E}\gamma s$ and $\overline{E}\gamma v$ = the average gamma energies per disintegration of stack and vent effluents
$\overline{E}\beta s$ and $\overline{E}\beta v$ = the average beta energies from stack and vent effluents.

b. and c. Iodines and Particulates with Half-Lives >8 Days

The release rates of I-131 and particulates with half-lives greater than eight days released to the environs as part of airborne effluents shall not exceed:

$$\frac{Qs}{7.7 \times 10^{-6}} + \frac{Qv}{2.1 \times 10^{-6}} \leq 0.08$$

when averaged over a calendar quarter.

where

Qs and Qv = the quarterly release rates in curies/second of I-131 and particulates with half-lives longer than eight days from the stack, reactor building, and turbine building vents.

d. Liquid Effluents

Maximum calendar quarter release rate of radioactive liquid effluents (excluding tritium and noble gases): 25 curies.

Maximum activity of discharged liquid radwaste tank (sample tank only): 10 curies.

Maximum radioactivity release concentration of discharge channel liquid effluents shall not exceed the values specified in 10 CFR 20, Appendix B, Table II, Column 2, for unrestricted areas.

4.2 MAXIMUM PERMISSIBLE CONCENTRATIONS

No maximum permissible concentrations (MPC) values are required specifically in Cooper Nuclear Station Environmental Technical Specifications for:

a. Fission and activation gases,
b. Iodines, or
c. Particulates with half lives >8 days

The equation in 4.1a under Regulatory Limits provides a method to be used in summing the gaseous airborne effluents from the main stack and vents which will assure that the release rate does not exceed 10 CFR Part 20 for unrestricted areas.

The equation presented in 4.1b and 4.1c under Regulatory Limits provides a method to be used in summing airborne halogens and particulates with half-lives >8 days released from the stack and vents to ensure that the release rate does not exceed 10 CFR Part 20, Appendix B, Table II, Column 1, for unrestricted areas.

d. Liquid effluents

The MPC used to calculate permissible liquid release rates are from 10 CFR 20, Appendix B, Table II, Column 2, and applicable notes to 10 CFR 20, Appendix B.

4.3 AVERAGE ENERGY

The average energy ($\overline{E}$) of the radionuclide mixtures of fission and activation gases released is as follows:

Third Quarter:	Fourth Quarter:
$\overline{E}_{\beta s}$ = 0.22 Mev/disintegration	$\overline{E}_{\beta s}$ = 0.27 Mev/disintegration
$\overline{E}_{\gamma s}$ = 0.27 Mev/disintegration	$\overline{E}_{\gamma s}$ = 0.44 Mev/disintegration
$\overline{E}_{\beta v}$(Rx) = 0.36 Mev/disintegration	$\overline{E}_{\beta v}$(Rx) = 0.36 Mev/disintegration
$\overline{E}_{\gamma v}$(Rx) = 0.68 Mev/disintegration	$\overline{E}_{\gamma v}$(Rx) = 0.67 Mev/disintegration
$\overline{E}_{\beta v}$(TG) = 0.33 Mev/disintegration	$\overline{E}_{\beta v}$(TG) = 0.34 Mev/disintegration
$\overline{E}_{\gamma v}$(TG) = 0.63 Mev/disintegration	$\overline{E}_{\gamma v}$(TG) = 0.64 Mev/disintegration
$\overline{E}_{\beta v}$(ARW) = 0.35 Mev/disintegration	$\overline{E}_{\beta v}$(ARW) = 0.39 Mev/disintegration
$\overline{E}_{\gamma v}$(ARW) = 0.66 Mev/disintegration	$\overline{E}_{\gamma v}$(ARW) = 0.70 Mev/disintegration

4.4 MEASUREMENTS AND APPROXIMATIONS OF TOTAL RADIOACTIVITY

The methods used to measure or approximate the total radioactivity in effluents and to determine radionuclide composition are as follows:

a. Fission and activation gases:

Radioactivity and radionuclide composition is determined by laboratory GeLi detector analysis in correlation with continuous gross radioactivity monitoring by a gaseous channel detector in the release pathway.

b. Iodines:

Charcoal cartridges provide continuous sample collection. These cartridges are analyzed for radioactivity and radionuclide composition in the laboratory by a GeLi detector gamma spectrometer. Continuous radioactivity monitoring of the charcoal cartridge is also provided by a NaI detector in-line with the release pathway.

c. Particulates:

Particulate filters provide continuous sample collection. These filters are analyzed for radioactivity and radionuclide composition in the laboratory by a GeLi detector gamma spectrometer. Continuous gross radioactivity monitoring of the particulate filter is provided by a NaI detector in-line with the release pathway.

d. Liquid effluents:

Each batch of liquid effluent is analyzed for radioactivity and radionuclide composition in the laboratory by a GeLi detector gamma spectrometer. Each batch is also analyzed for gross radioactivity by both gross beta and gamma. In addition, each batch is monitored for gross radioactivity by an NaI detector in-line with the release pathway.

4.5 BATCH RELEASES

The following information relates to batch releases of radioactive materials in liquid and gaseous effluents:

a. Liquid

1.	Number of batch releases	87
2.	Total time period for batch releases	1.91 E+04 minutes
3.	Maximum time period for a batch release	2.77 E+02 minutes
4.	Average time period for batch releases	2.20 E+02 minutes
5.	Minimum time period for a batch release	1.20 E+02 minutes
6.	Average stream flow during periods of release of effluent into a flowing stream	5.88 E+07 liters/minutes

b. Gaseous

1.	Number of batch releases	None
2.	Total time period for batch release	N/A
3.	Maximum time period for a batch release	N/A
4.	Average time period for batch releases	N/A
5.	Minimum time period for a batch release	N/A

4.6 ABNORMAL RELEASE

a. Liquid

1.	Number of releases	0
2.	Total activity released	None

b. Gaseous

1.	Number of releases	0
2.	Total activity released	None

TABLE 4-1A EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT, GASEOUS EFFLUENTS - SUMMATION OF ALL RELEASES, COOPER NUCLEAR STATION, BROWNVILLE, NEBRASKA, JULY - DECEMBER 1981

	Unit	3rd Quarter	4th Quarter	Est. Total Error, %
A. Fission & activation gases				
1. Total release	Ci	3.22 E+02	1.64 E+03	2.0 E+01
2. Average release rate for period	μCi/sec	4.05 E+01	2.06 E+02	
3. Percent of Technical Specification limit	%	*	*	
B. Iodines				
1. Total iodine -131	Ci	≤1.15 E-03	≤6.33 E-04	3.0 E+01
2. Average release rate for period	μCi/sec	≤1.45 E-04	≤7.96 E-05	
3. Percent of Technical Specification limit	%	**	**	
C. Particulates				
1. Particulates with half-lives >8 days	Ci	≤1.29 E-03	≤8.28 E-04	5.0 E+01
2. Average release rate for period	μCi/sec	≤1.63 E-04	≤1.04 E-04	
3. Percent of Technical Specification limit	%	**	**	
4. Gross alpha radioactivity	Ci	3.19 E-07	4.08 E-06	
D. Tritium				
1. Total release	Ci	1.45 E+00	3.99 E-01	3.0 E+01
2. Average release rate for period	μCi/sec	1.82 E-01	5.01 E-02	
3. Percent of Technical Specification limit	%	*	*	

* The noble gases and tritium are combined in the Technical Specification discharge limit. The third quarter releases were 3.46 E-01% of the allowable limit while the fourth quarter releases were 2.28 E+00% of the allowable limit.

** The iodine -131 and particulates with half-lives longer than 8 days are combined into one Technical Specification. The third qurater releases were 1.20 E-01% of the allowable limit while the fourth quarter releases were 6.71 E-02% of the allowable limit.

TABLE 4-1B EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT, GASEOUS EFFLUENTS-ELEVATED RELEASE, COOPER NUCLEAR STATION, BROWNVILLE, NEBRASKA, JULY - DECEMBER 1981

	Unit	Continuous Mode 3rd Quarter	Continuous Mode 4th Quarter	Batch Mode[a]
Fission gases				
krypton-85	Ci	7.42 E+00	5.95 E+00	
krypton-85m	Ci	3.43 E+01	7.17 E+01	
krypton-87	Ci	1.58 E+01	8.64 E+01	
krypton-88	Ci	3.39 E+01	1.52 E+02	
xenon-133	Ci	4.07 E+01	1.66 E+02	
xenon-135	Ci	4.12 E+01	2.46 E+02	
xenon-135m	Ci	2.37 E+00	9.10 E+00	
xenon-138	Ci	1.19 E+01	4.38 E+01	
krypton-89	Ci	1.37 E-02	9.33 E-03	
krypton-83m	Ci	3.78 E+00	2.11 E+01	
xenon-137	Ci	7.29 E-02	7.15 E-02	
xenon-133m	Ci	8.50 E-01	5.10 E+00	
xenon-131m	Ci	6.47 E-01	7.71 E-01	
Total for period	Ci	1.93 E+02	8.08 E+02	
Iodines				
iodine-131	Ci	≤8.81 E-04	5.70 E-04	
iodine-133	Ci	≤4.22 E-03	≤2.66 E-03	
iodine-135	Ci	≤2.02 E-03	≤1.58 E-03	
Total for period	Ci	≤7.12 E-03	≤4.81 E-03	
Particulates				
strontium-89	Ci	2.49 E-05	3.19 E-05	
strontium-90	Ci	2.10 E-06	4.87 E-06	
cesium-134	Ci	≤8.76 E-07	≤6.30 E-07	
cesium-137	Ci	≤6.07 E-06	≤9.08 E-07	
barium-lanthanum-140	Ci	≤2.24 E-04	≤1.62 E-04	
iodine-131	Ci	≤5.56 E-06	≤1.93 E-06	
cobalt-58	Ci	9.31 E-07		
cobalt-60	Ci	5.01 E-06	2.87 E-06	
manganese-54	Ci	4.54 E-06	1.76 E-06	
Total for period	Ci	≤2.74 E-04	≤2.07 E-04	

[a] No batch discharges were made.

TABLE 4-1C EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT, GASEOUS EFFLUENTS-BUILDING VENT RELEASE, COOPER NUCLEAR STATION, BROWNVILLE, NEBRASKA, JULY - DECEMBER 1981

Nuclides Released	Unit	Continuous Mode 3rd Quarter	Continuous Mode 4th Quarter
Fission gases			
krypton-85	Ci	6.28 E-02	3.74 E-01
krypton-85m	Ci	8.52 E+00	5.13 E+01
krypton-87	Ci	1.49 E+01	9.29 E+01
krypton-88	Ci	2.40 E+01	1.47 E+02
xenon-133	Ci	2.45 E+01	1.46 E+02
xenon-135	Ci	3.93 E+01	2.35 E+02
xenon-135m	Ci	2.15 E+00	1.90 E+01
xenon-138	Ci	1.08 E+01	1.01 E+02
krypton-89	Ci	1.61 E-02	2.59 E+00
krypton-83m	Ci	3.51 E+00	2.15 E+01
xenon-137	Ci	7.61 E-02	6.78 E+00
xenon-133m	Ci	8.11 E-01	4.83 E+00
xenon-131m	Ci	5.14 E-02	3.06 E-01
Total for period	Ci	1.29 E+02	8.28 E+02
Iodines			
iodine-131	Ci	≤2.70 E-04	≤6.34 E-05
iodine-133	Ci	≤5.51 E-04	≤5.01 E-04
iodine-135	Ci	≤3.49 E-02	≤3.05 E-02
Total for period	Ci	≤3.57 E-02	≤3.11 E-02
Particulates			
strontium-89	Ci	1.05 E-05	2.57 E-05
strontium-90	Ci	2.81 E-06	1.26 E-05
cesium-134	Ci	≤7.13 E-05	≤3.21 E-05
cesium-137	Ci	≤1.40 E-04	≤4.95 E-05
barium-lanthanum-140	Ci	≤1.98 E-04	≤2.13 E-04
iodine-131	Ci	≤3.24 E-05	≤3.44 E-05
cobalt-58	Ci	6.22 E-06	2.22 E-06
cobalt-60	Ci	4.71 E-04	2.12 E-04
manganese-54	Ci	8.67 E-05	4.11 E-05
Total for period	Ci	≤1.02 E-03	≤6.21 E-04

TABLE 4-2A EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT, LIQUID EFFLUENTS-SUMMATION OF ALL RELEASES, COOPER NUCLEAR STATION, BROWNVILLE, NEBRASKA, JULY - DECEMBER 1981

	Unit	3rd Quarter	4th Quarter	Est. Total Error %
A. Fission and activation products				
1. Total release (not including tritium, gases, alpha)	Ci	≤1.25 E+00	≤6.01 E-01	2.0 E+01
2. Average diluted concentration during period	μCi/ml	≤7.49 E-08	≤6.20 E-08	
3. Percent of applicable limit	%	5.00 E+00	2.40 E+00	
B. Tritium				
1. Total release	Ci	≤1.79 E+00	≤1.24 E+00	2.0 E+01
2. Average diluted concentration during period	μCi/ml	≤1.67 E-07	≤1.28 E-07	
3. Percent of applicable limit	%	5.57 E-03	4.27 E-03	
C. Dissolved and entrained gases				
1. Total release	Ci	≤9.28 E-02	≤7.77 E-03	5.0 E+01
2. Average diluted concentration during period	μCi/ml	≤5.56 E-09	≤8.01 E-10	
3 Percent of applicable limit	%	NA	NA	NA
D. Gross alpha radioactivity				
1. Total release	Ci	≤2.62 E-03	≤5.93 E-04	5.0 E+01
E. Volume of waste released (prior to dilution)	liters	3.23 E+06	2.39 E+06	1.0 E+01
F. Volume of dilution water used during period	liters	1.67 E+10	9.70 E+09	1.0 E+01

NA-None applicable.

TABLE 4-2B EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT, LIQUID EFFLUENTS, COOPER NUCLEAR STATION, BROWNVILLE, NEBRASKA, JULY - DECEMBER 1981

Nuclides Released	Unit	Continuous Mode[a]	Batch Mode 3rd Quarter	Batch Mode 4th Quarter
strontium-89	Ci		1.95 E-02	7.05 E-03
strontium-90	Ci		1.91 E-04	6.02 E-04
strontium-92	Ci		≤6.19 E-05	
cesium-134	Ci		≤4.72 E-02	5.09 E-02
cesium-136	Ci		≤1.83 E-04	8.19 E-04
cesium-137	Ci		≤6.91 E-02	7.08 E-02
iodine-131	Ci		≤3.40 E-02	≤2.16 E-02
cobalt-58	Ci		≤2.26 E-01	3.25 E-02
cobalt-60	Ci		≤3.52 E-01	2.37 E-01
iron-59	Ci		≤3.39 E-03	≤1.81 E-03
zinc-65	Ci		≤6.56 E-03	≤4.40 E-03
manganese-54	Ci		≤2.93 E-01	7.93 E-02
manganese-56	Ci		4.61 E-04	
chromium-51	Ci		≤8.63 E-02	≤6.12 E-02
antimony-124	Ci		≤1.05 E-02	
zirconium-niobium-95	Ci		≤5.99 E-03	≤4.70 E-03
molybdenum-99	Ci		1.28 E-02	4.25 E-04
technetium-99m	Ci		≤1.42 E-02	≤2.08 E-03
barium-lanthanum-140	Ci		≤5.91 E-03	≤4.95 E-03
cerium-141	Ci		≤3.53 E-03	≤3.54 E-03
silver-110m	Ci		≤4.87 E-03	2.75 E-03
sodium-24	Ci		1.94 E-03	6.20 E-03
unidentified	Ci		≤4.91 E-02	≤7.93 E-03
Total for period above	Ci		≤1.25 E+00	≤6.01 E-01
xenon-133	Ci		≤8.83 E-02	≤6.14 E-03
xenon-135	Ci		≤4.52 E-03	≤1.63 E-03

[a] No continuous mode discharges made.

TABLE 4-3 EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT, SOLID WASTE AND IRRADIATED FUEL SHIPMENTS, COOPER NUCLEAR STATION, BROWNVILLE, NEBRASKA, JULY - DECEMBER 1981

A. SOLID WASTE SHIPPED OFFSITE FOR BURIAL OR DISPOSAL (not irradiated fuel)

	Unit	6-Month Period	Estimated Total Error (%)
1. Type of waste			
a. Spent resins, filter sludges, evaporator bottoms, etc.	m^3	8.13 E+01	
	Ci	1.87 E+02	15%
b. Dry compressible waste, contaminated equip., etc.	m^3	1.82 E+02	
	Ci	1.42 E+00	25%
c. Irradiated components, control rods, etc.	m^3		
	Ci	None	
d. Other	m^3		
	Ci	None	
2. Estimate of major nuclide composition (by type of waste), percent (%)			
a. chromium-51		4.37 E+00	
cobalt-60		3.89 E+01	
cobalt-58		2.50 E+00	
manganese-54		1.36 E+01	
zinc-65		1.28 E+00	
silver-110m		2.94 E+00	
iodine-131		1.25 E-01	
cesium-137		2.03 E+01	
cesium-134		1.53 E+01	
iron-59		1.93 E-01	
zirconium-niobium-95		2.50 E-01	
barium-lanthanum-140		1.52 E-01	
b. chromium-51		2.42 E+01	
cobalt-60		2.55 E+01	
cobalt-58		2.18 E+00	
manganese-54		1.23 E+01	
zinc-65		9.79 E-01	
silver-110m		2.14 E+00	
iodine-131		1.30 E-01	
cesium-137		1.88 E+01	
cesium-134		1.35 E+01	
zirconium-niobium-95		2.72 E-01	
iron-59		2.07 E-01	

TABLE 4-3 (CONT.)

3. Solid Waste Disposition

Number of Shipments	Mode of Transportation	Destination
40	Sole use vehicle	Beatty, Nevada

B. IRRADIATED FUEL SHIPMENTS (Disposition)

Number of Shipments	Mode of Transportation	Destination
none	N/A	N/A

5. GAMMA DOSE ISOPLETHS

Estimated gamma radiation doses were calculated from the effluent releases presented in Section 4 and the dispersion characteristics presented in Section 3. The NRC supplied computer model GASPAR was used to calculate locations of equal dosage (isopleths). The isopleth figures are presented for both a 5-mile and a 50-mile radius area centered on the Cooper Nuclear Power Station. The periods covered by the figures are July - September, October - December, July - December, and January - December. Each figure is for a combined release with the vent stack and elevated release point data used together to estimate the gamma dose at each grid point.

The data tables from which the isopleth figures were derived are presented in Appendix C and the GASPAR computer model is discussed in Appendix D. The GASPAR computer model implements the air-released dose models of Regulatory Guide 1.109 (U.S. NRC 1977a).

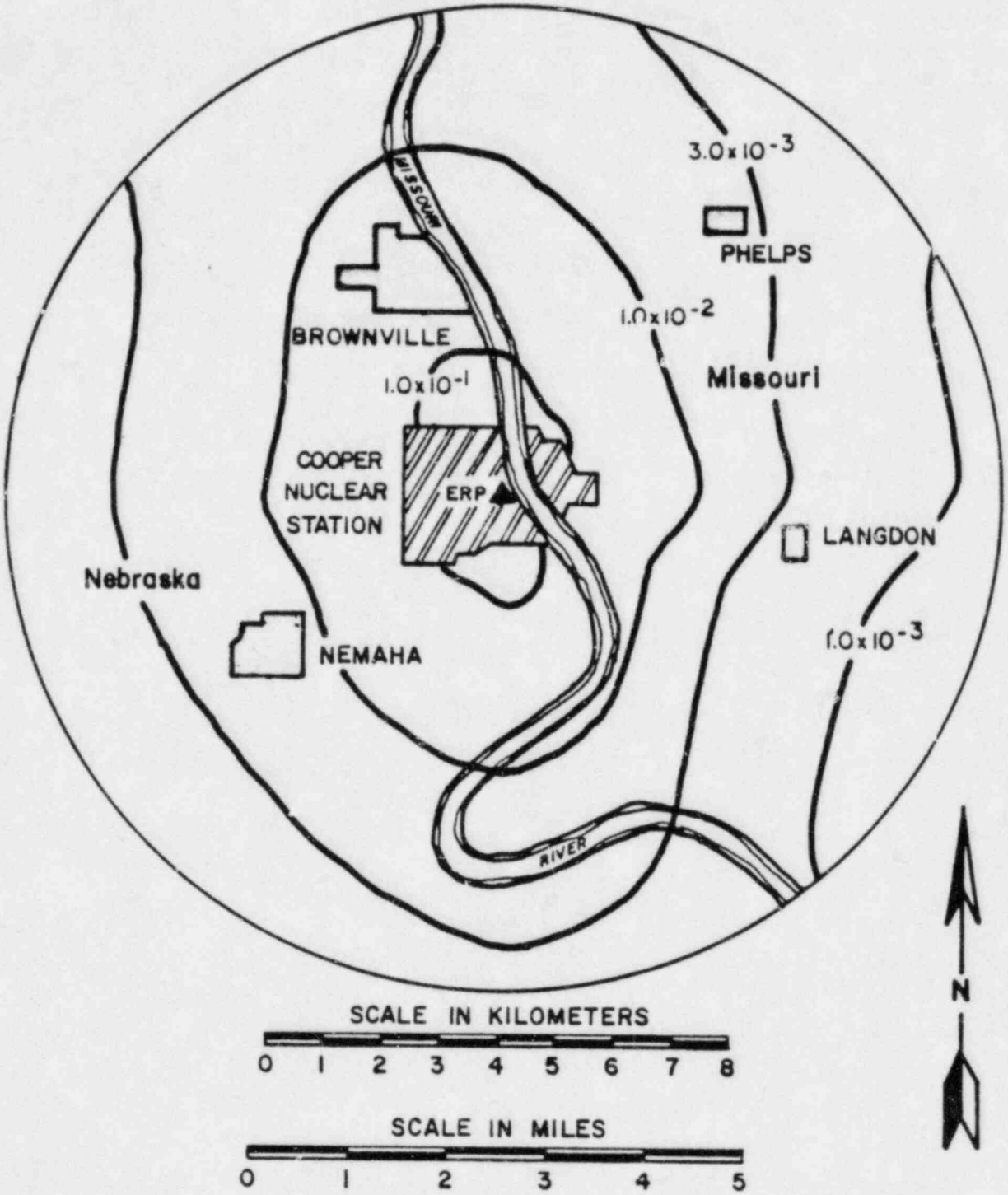

Figure 5-1 Estimated gamma dose (millirad), combined vent and elevated release, Cooper Nuclear Station, Brownville, Nebraska, 0-5 miles, July-September 1981.

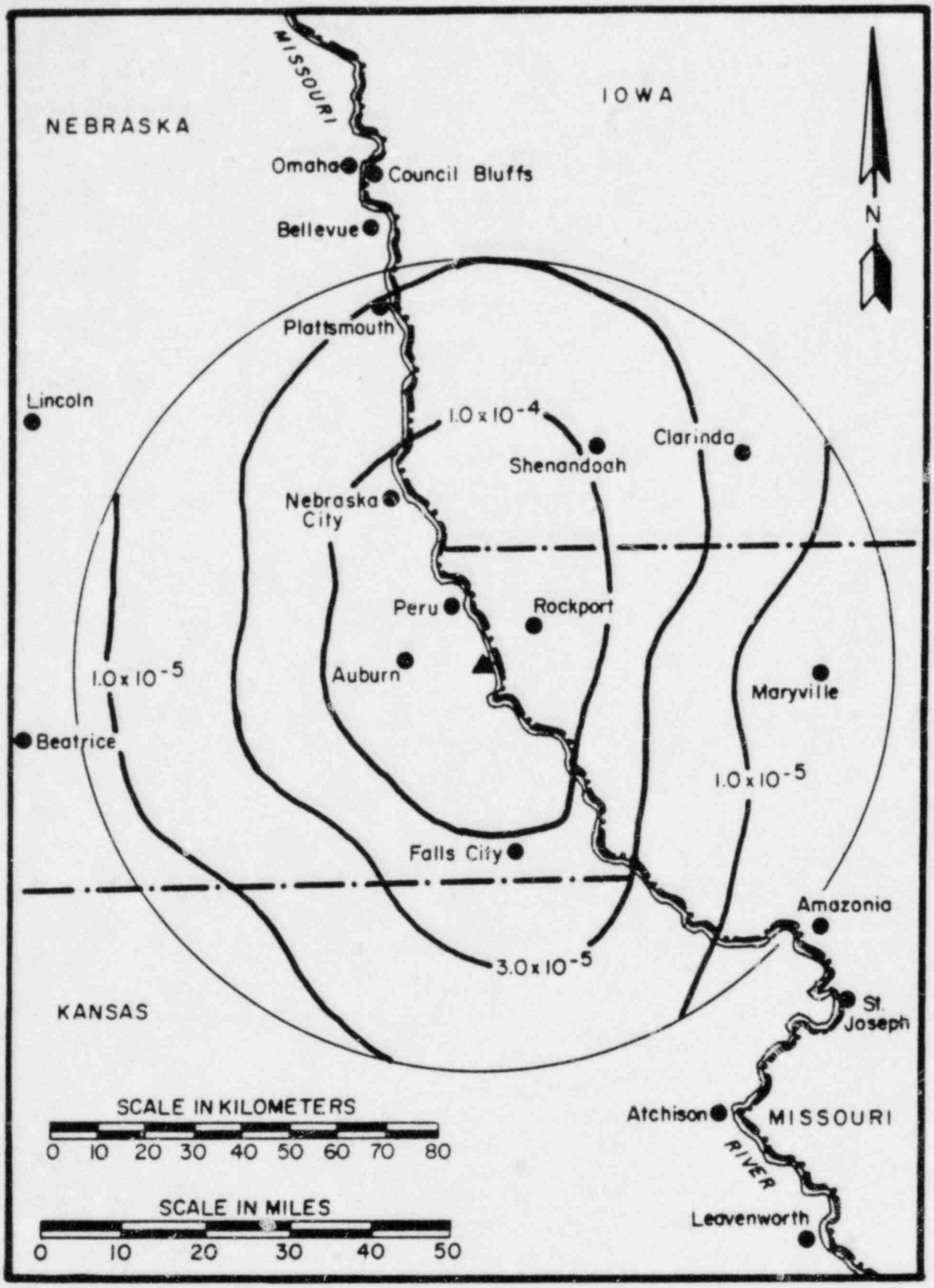

Figure 5-2 Estimated gamma dose (millirad), combined vent and elevated release, Cooper Nuclear Station, Brownville, Nebraska, 0-50 miles, July-September 1981.

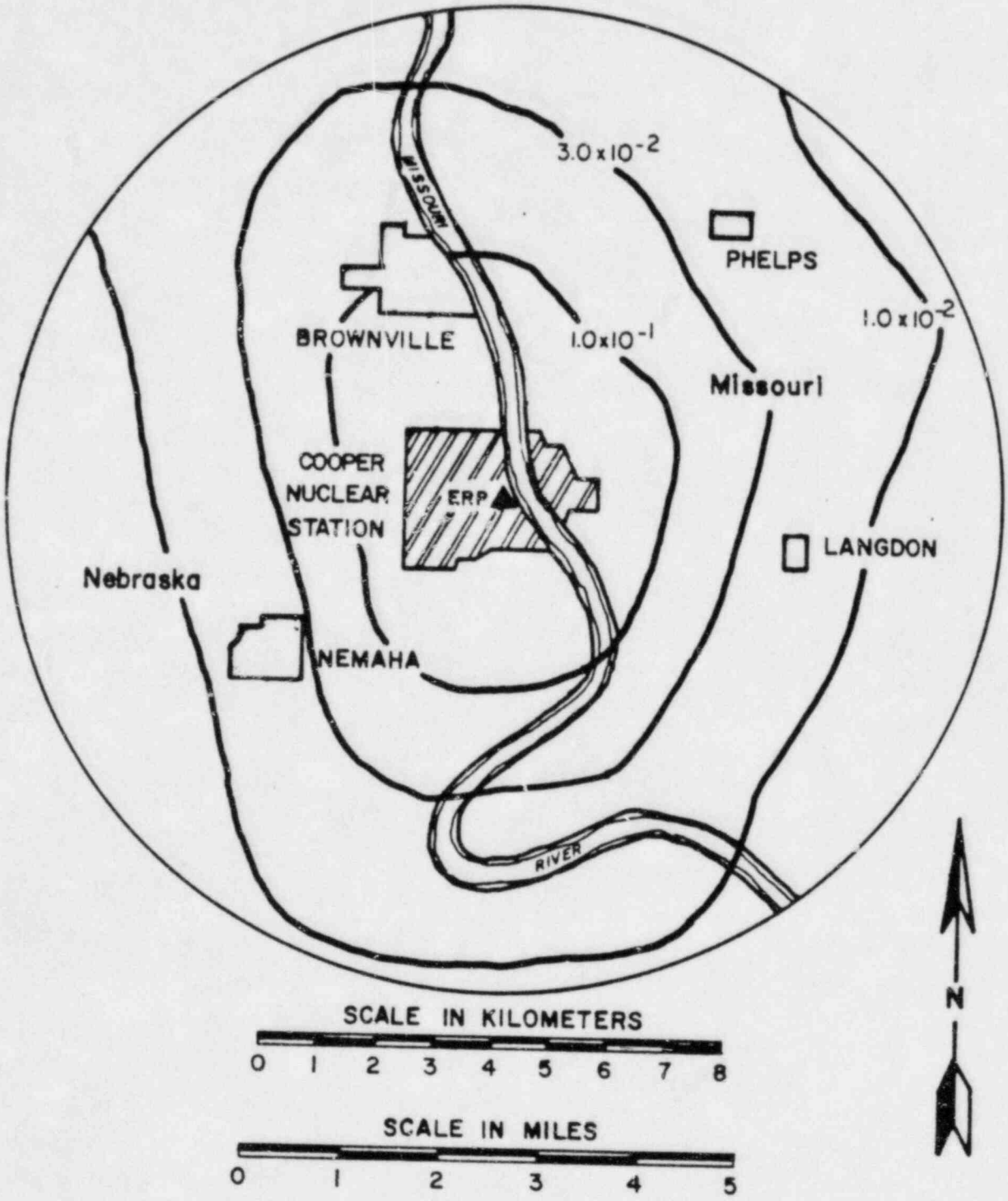

Figure 5-3 Estimated gamma dose (millirad), combined vent and elevated release, Cooper Nuclear Station, Brownville, Nebraska, 0-5 miles, October-December 1981.

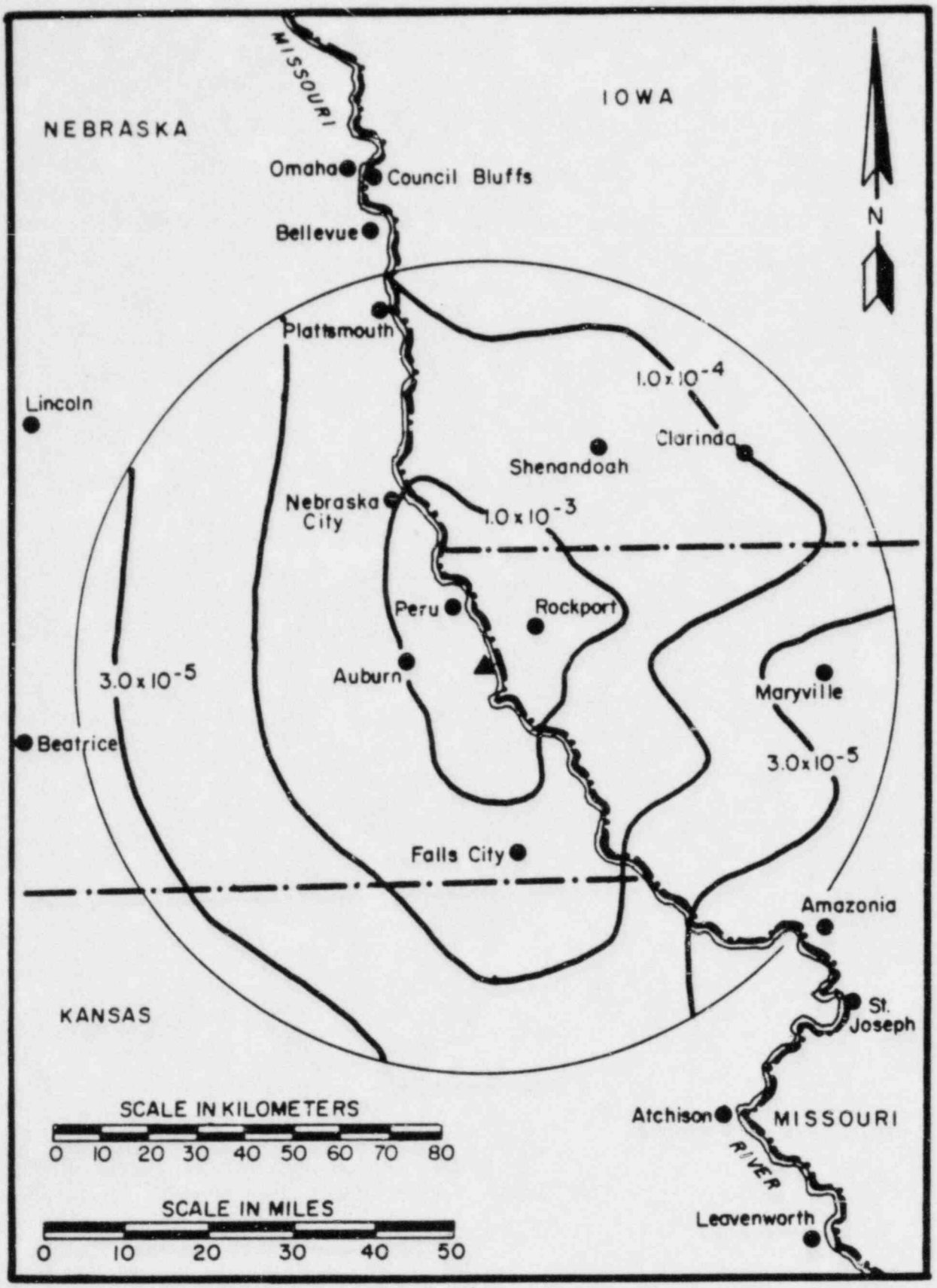

Figure 5-4 Estimated gamma dose (millirad), combined vent and elevated release, Cooper Nuclear Station, Brownville, Nebraska, 0-50 miles, October-December 1981.

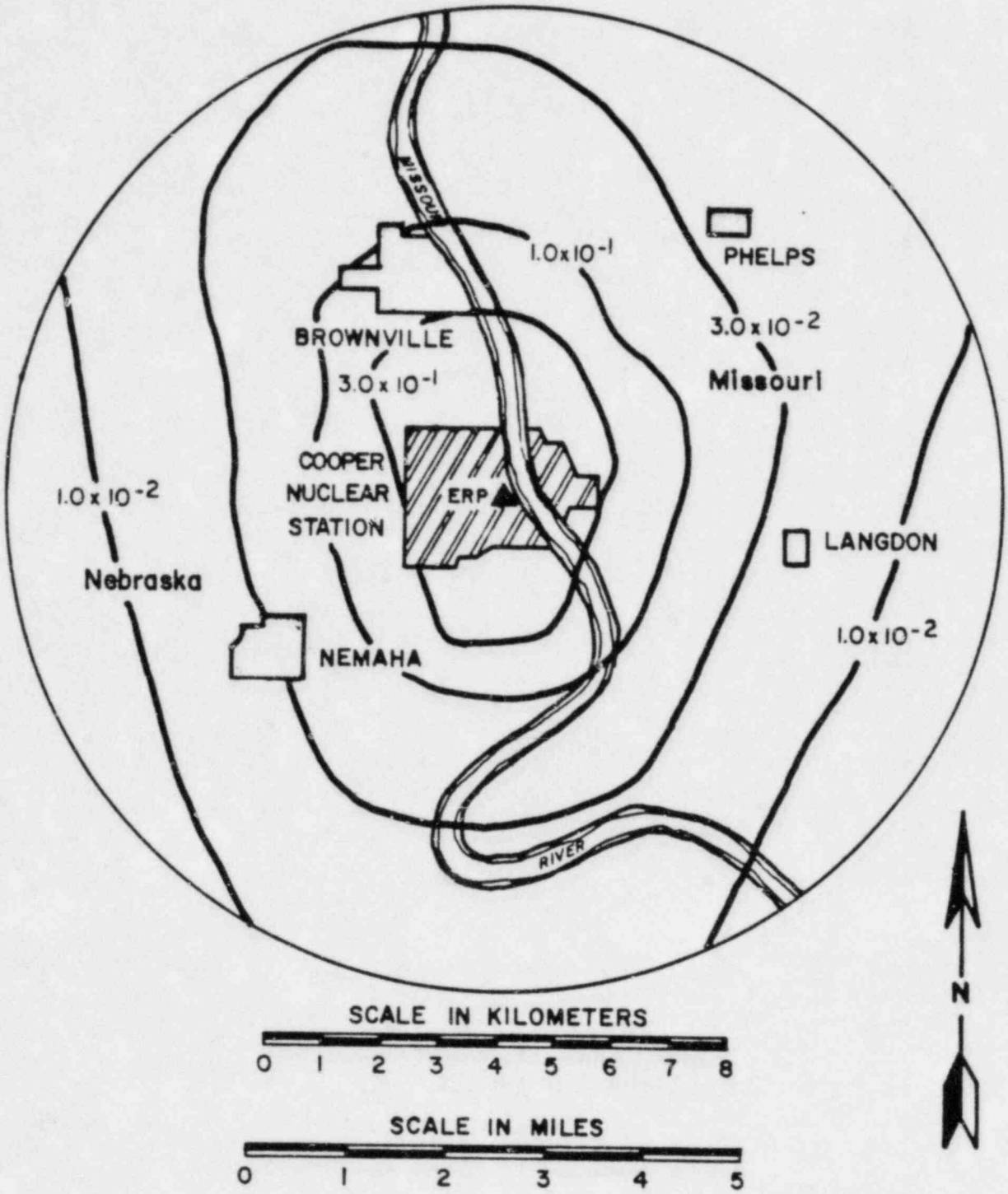

Figure 5-5 Estimated gamma dose (millirad), combined vent and elevated release, Cooper Nuclear Station, Brownville, Nebraska, 0-5 miles, July-December 1981.

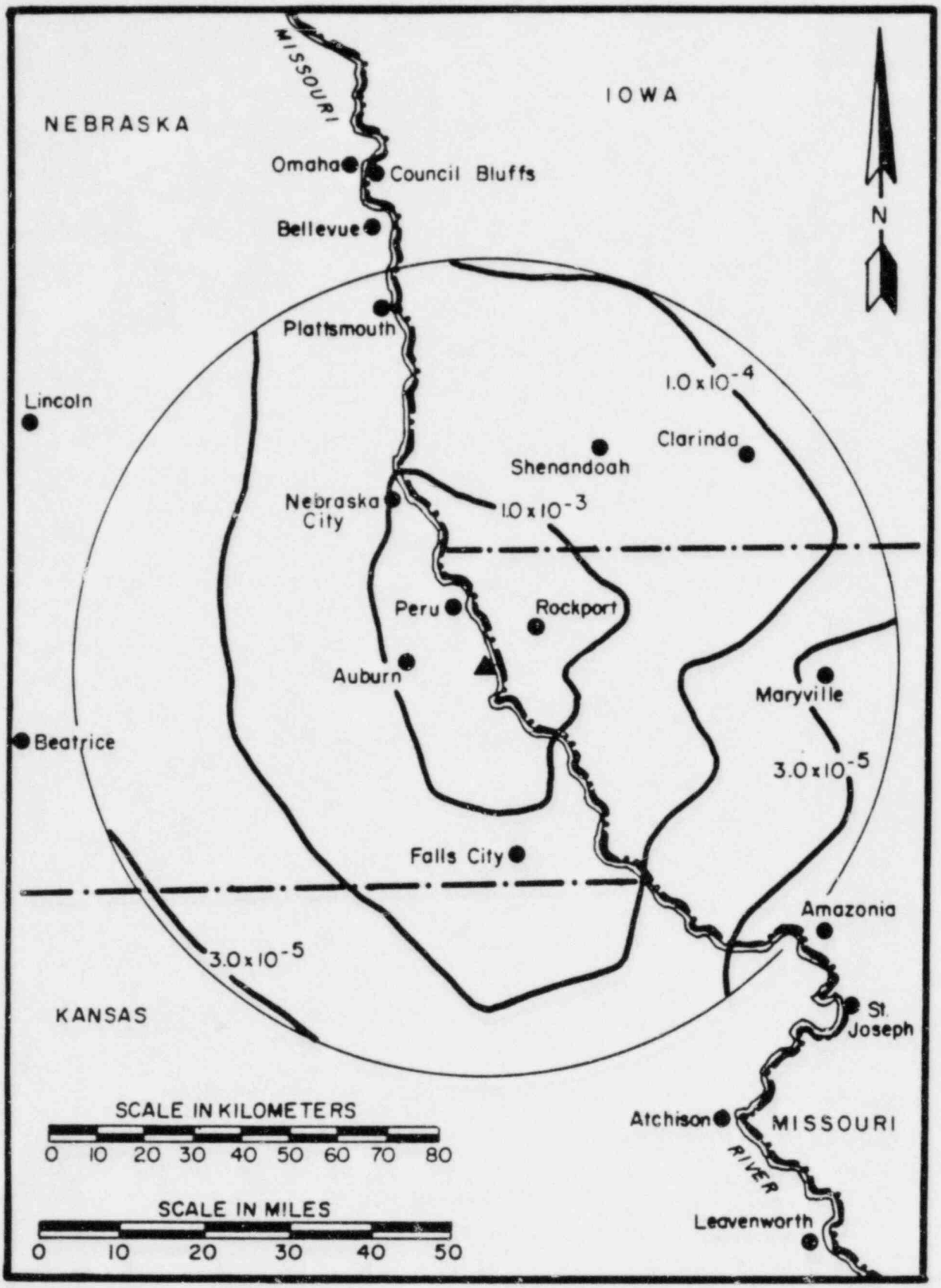

Figure 5-6 Estimated gamma dose (millirad), combined vent and elevated release, Cooper Nuclear Station, Brownville, Nebraska, 0-50 miles, July-December 1981.

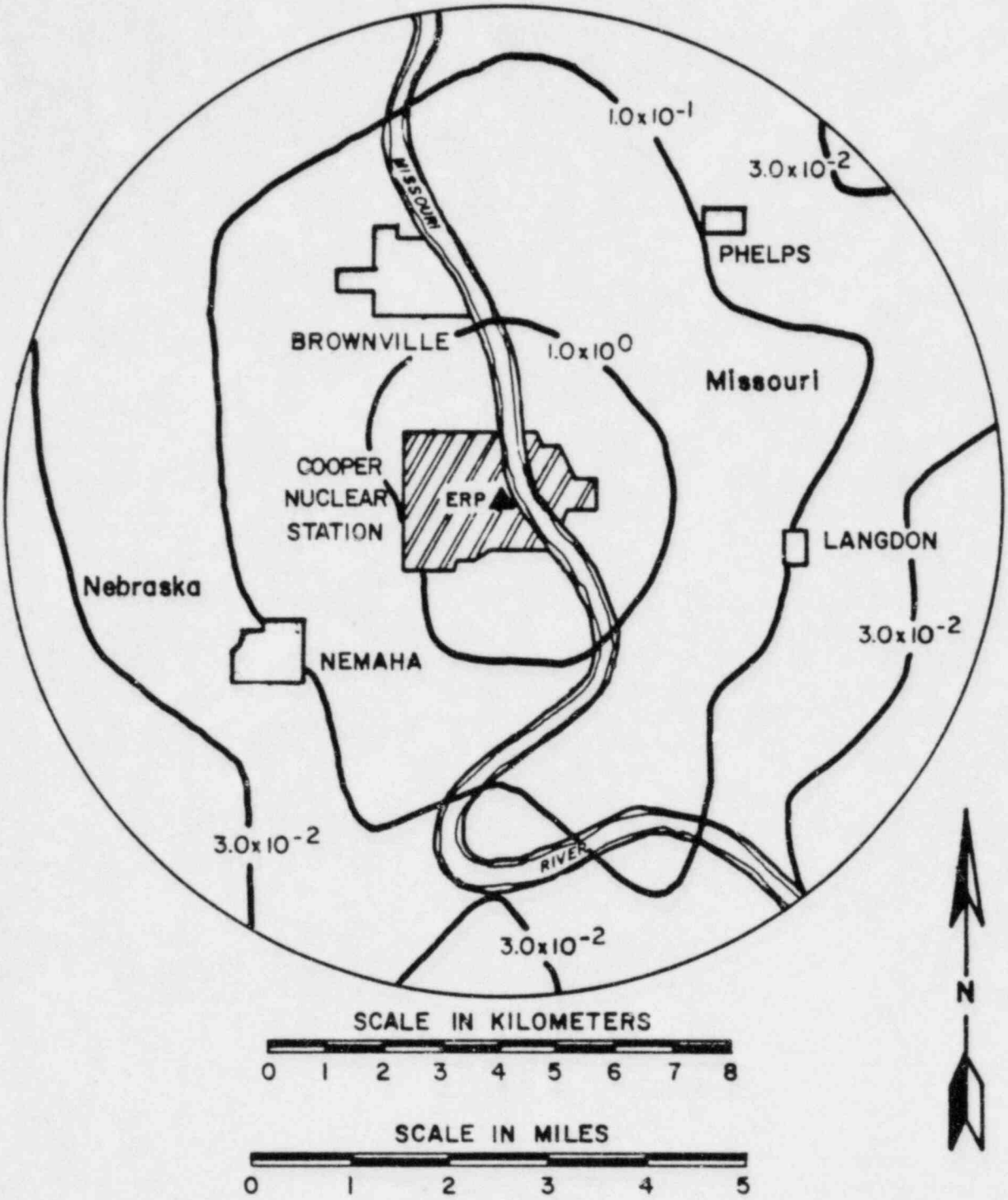

Figure 5-7 Estimated gamma dose (millirad), combined vent and elevated release, Cooper Nuclear Station, Brownville, Nebraska, 0-5 miles, January-December 1981.

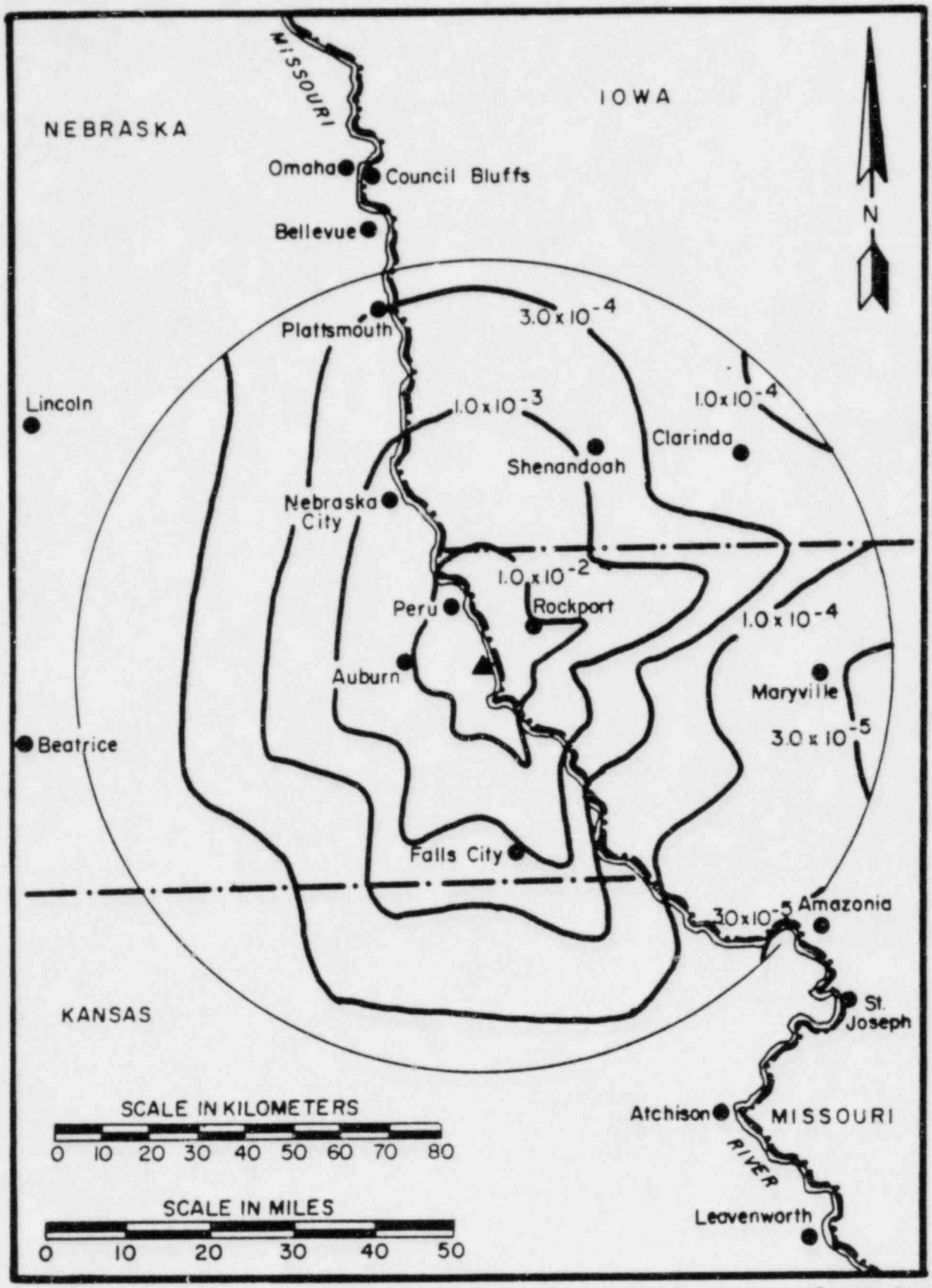

Figure 5-8 Estimated gamma dose (millirad), combined vent and elevated release, Cooper Nuclear Station, Brownville, Nebraska, 0-50 miles, January-December 1981.

6. RADIOLOGICAL DOSE CALCULATIONS FROM WATERBORNE SOURCES

In calculating doses to an individual and population caused by the release of radioactive material via liquid effluent from Cooper Nuclear Power Station, the LADTAP II (ORNL 1980) computer program was used. The LADTAP II program implements the radiological impact models of Regulatory Guide 1.109 (U.S. NRC 1977a) for determining the radiation exposure to man from four principal exposure pathways in the aquatic environment--potable water, aquatic foods, shoreline deposits, and irrigated foods. Doses for both the maximum individual and the general population are calculated as a function of age group and pathway for appropriate body organs. The input data are obtained from the effluent release report presented in Section 4.

TABLE 6-1 DOSES TO INDIVIDUAL AT THE SITE BOUNDARY, RESULTING FROM EXPOSURE TO RADIOACTIVITY DISCHARGED IN LIQUID EFFLUENTS, JANUARY-DECEMBER, 1981, COOPER NUCLEAR POWER STATION.

Period and Pathway	Dose to individual, mrem[a]							
	Skin	Bone	Liver	Total Body	Thyroid	Kidney	Lung	Gi-LLi
1st Quarter								
Drinking Water		2.72E-03	3.83E-03	2.91E-03	6.58E-04	1.29E-03	4.55E-04	1.22E-03
Shoreline	3.01E-04	2.57E-04	2.57E-04	2.57E-04	2.57E-04	2.57E-04	2.57E-04	2.57E-04
Total	3.01E-04	2.97E-03	4.08E-03	3.17E-03	9.15E-03	1.55E-03	7.12E-04	1.47E-03
2nd Quarter								
Eating Fish		4.29E-01	7.54E-01	5.55E-01	4.36E-03	2.50E-01	8.24E-02	6.43E-02
Drinking Water		8.85E-03	1.36E-02	1.04E-02	1.02E-02	4.53E-03	1.52E-03	5.20E-03
Shoreline	1.36E-03	1.16E-03	1.16E-03	1.16E-03	1.16E-03	1.16E-03	1.16E-03	1.16E-03
Swimming	0.00E+00	2.55E-06	2.55E-06	2.55E-06	2.55E-06	2.55E-06	2.55E-06	2.55E-06
Boating	0.00E+00	3.61E-05	3.61E-05	3.61E-05	3.61E-05	3.61E-05	3.61E-05	3.61E-05
Total	1.36E-03	4.39E-01	7.68E-01	5.67E-01	1.57E-02	2.56E-01	8.51E-02	7.07E-02
Total for 1st and 2nd Quarters	1.66E-03	4.42E-01	7.72E-01	5.70E-01	1.66E-02	2.58E-01	8.58E-02	7.22E-02
3rd Quarter								
Eating Fish		9.01E-02	1.57E-01	1.13E-01	4.80E-03	5.22E-02	1.68E-02	3.65E-02
Drinking Water		2.81E-03	3.18E-03	2.51E-03	1.11E-02	1.09E-03	3.51E-04	4.67E-03
Shoreline	8.28E-04	7.04E-04	7.04E-04	7.04E-04	7.04E-04	7.04E-04	7.04E-04	7.04E-04
Swimming	0.00E+00	5.63E-06	5.63E-06	5.63E-06	5.63E-06	5.63E-06	5.63E-06	5.63E-06
Boating	0.00E+00	2.67E-05	2.67E-05	2.67E-05	2.67E-05	2.67E-05	2.67E-05	2.67E-05
Total	8.28E-04	9.37E-02	1.61E-01	1.17E-01	1.67E-02	5.40E-02	1.79E-02	4.29E-02
4th Quarter								
Eating Fish		1.02E-01	1.76E-01	1.29E-01	3.32E-03	5.87E-02	1.92E-02	2.59E-03
Drinking Water		4.01E-03	4.91E-03	3.98E-03	1.15E-02	1.65E-03	5.41E-04	3.92E-03
Shoreline	9.34E-04	7.95E-04	7.95E-04	7.95E-04	7.95E-04	7.95E-04	7.95E-04	7.95E-04
Boating	0.00E-00	1.65E-05	1.65E-05	1.65E-05	1.65E-05	1.65E-05	1.65E-05	1.65E-05
Total	9.34E-04	1.07E-01	1.82E-01	1.34E-01	1.57E-02	6.12E-02	2.06E-02	3.07E-02
Total for 3rd and 4th Quarters	1.76E-03	2.10E-01	3.43E-01	2.51E-01	3.24E-02	1.15E-01	3.85E-02	7.26E-02
Total for 12 months	3.42E-03	6.43E-01	1.11E+00	8.21E-01	4.90E-02	3.73E-01	1.24E-01	1.45E-01

[a] Calculated doses are based on the following periods of exposures:
Fishing and boating: from April through November
Drinking water and shoreline: from January through December
Swimming: from June through September
Other assumptions are listed in Table 6-3.

TABLE 6-2 DOSES TO POPULATION WITHIN 50 MILES RADIUS, RESULTING FROM EXPOSURE TO RADIOACTIVITY DISCHARGED IN LIQUID EFFLUENTS, JANUARY-DECEMBER, 1981, COOPER NUCLEAR POWER STATION.

Period and Pathway	Dose to individual, mrem[a]							
	Skin	Bone	Liver	Total Body	Thyroid	Kidney	Lung	Gi-Lli
1st Quarter								
Drinking Water[b]		3.67E-03	4.54E-03	2.60E-03	7.30E-04	1.51E-03	5.47E-04	1.09E-03
Shoreline	7.95E-04	6.78E-03	6.78E-03	6.78E-04	6.78E-04	6.78E-04	6.78E-04	6.78E-04
Total	7.95E-04	1.04E-02	1.13E-02	3.28E-03	1.41E-03	2.19E-03	1.22E-03	1.77E-03
2nd Quarter								
Drinking Water[b]		5.26E-03	7.10E-03	4.11E-03	5.00E-03	2.34E-03	8.12E-04	2.05E-03
Shoreline	1.59E-03	1.35E-03	1.35E-03	1.35E-03	1.35E-03	1.35E-03	1.35E-03	1.35E-03
Swimming	0.00E+00	3.18E-06	3.18E-06	3.18E-06	3.18E-06	3.18E-06	3.18E-06	3.18E-06
Boating	0.00E+00	3.50E-05	3.50E-05	3.50E-05	3.50E-05	3.50E-05	3.50E-05	3.50E-05
Total	1.59E-03	6.65E-03	8.49E-03	5.50E-03	6.39E-03	3.73E-03	2.20E-03	3.44E-03
Total for 2st and 2nd Quarters	2.39E-03	1.70E-02	1.98E-02	8.78E-03	7.80E-03	5.92E-03	3.42E-03	5.21E-03
3rd Quarter								
Drinking Water		2.60E-03	2.95E-03	2.34E-03	9.58E-03	1.01E-03	3.27E-04	4.32E-03
Shoreline	1.48E-03	1.26E-03	1.26E-03	1.26E-03	1.26E-03	1.26E-03	1.26E-03	1.26E-03
Swimming	0.00E+00	1.08E-05	1.08E-05	1.08E-05	1.08E-05	1.08E-05	1.08E-05	1.08E-05
Boating	0.00E+00	3.97E-05	3.97E-05	3.97E-05	3.97E-05	3.97E-05	3.97E-05	3.97E-05
Total	1.48E-03	3.91E-03	4.26E-03	3.65E-03	1.09E-02	2.32E-03	1.64E-03	5.63E-03
4th Quarter								
Drinking Water		2.77E-03	3.40E-03	2.76E-03	7.38E-03	1.14E-03	3.75E-04	2.69E-03
Shoreline	1.24E-03	1.06E-03	1.06E-03	1.06E-03	1.06E-03	1.06E-03	1.06E-03	1.06E-03
Boating	0.00E+00	1.79E-05	1.79E-05	1.79E-05	1.79E-05	1.79E-05	1.79E-05	1.79E-05
Total	1.24E-03	3.85E-03	4.48E-03	3.84E-03	8.46E-03	2.22E-03	1.45E-03	3.77E-03
Total for 3rd and 4th Quarter	2.72E-03	7.76E-03	8.74E-03	7.49E-03	1.94E-02	4.54E-03	3.09E-03	9.40E-03
Total for 12 Months	5.11E-03	2.48E-02	2.85E-02	1.63E-02	2.72E-02	1.05E-02	6.51E-03	1.46E-02

[a] Calculated doses are based on the following periods of exposures:
Boating: from April through November
Drinking water and shoreline: from January through December
Swimming: from June through September

[b] Exposure from drinking water is calculated for the city of St. Joseph, Missouri, nearest public water intake from the Missouri River, 84 river miles down the river, population 85,000.

Other assumptions are listed in Table 6-3.

TABLE 6-3 VALUES OF PARAMETERS USED TO MAKE DOSE ESTIMATES RESULTING FROM LIQUID DISCHARGES, JANUARY-DECEMBER, 1981, COOPER NUCLEAR POWER STATION.

Parameter	Value Assigned		Source of Reference
	Individual	Population	
Population at St. Joseph, Missouri		85,000[a]	
Cooling Flow Rate	1,026; 770 ; 1,184; 685 CFS[b]	1,026; 770; 1,184; 685 CFS[b]	Station Data
Dilution Factor	1	22.27; 50.46, 32.91; 44.23[b]	Station Data
Shorewidth Factor	0.2	0.2	U.S. NRC (1977), p.15
Usage:			
(drinking water)	730 l/hr	370 l/yr/person	U.S. NRC (1977), p.12,40,69
(fish)	21 Kg/yr	6.9 Kg/yr	U.S. NRC (1977), p.12,40,69
(shoreline exposure)	12 hr/yr	8.3 hr/yr	U.S. NRC (1977), p.40
(swimming)	8 hr/yr	6 hr/yr	Oak Ridge (1980), p.144
(boating)	76 hr/yr	44 hr/yr	Oak Ridge (1980), p.144
Holding time:			
(drinking water)	12 hr	22.4 hr[c]	U.S. NRC (1977), p.40
(fish)	24 hr	168 hr	U.S. NRC (1977), p.40
(shoreline exposure)	0 hr.	22.4[c] hr	U.S. NRC (1977), p.12,69
(swimming)	0 hr	22.4[c] hr	U.S. NRC (1977), p.12,69
(boating)	0 hr	22.4[c] hr	U.S. NRC (1977), p.12,69

[a] Assumed population for 1974. Last available population data is 69,673 persons for 1964
[b] First, second, third, and fourth quarters for 1981, respectively.
[c] Based on an average Missouri River water flow of 5.5 ft/sec. 84 river miles down the river.

For definitions of parameters, refer to Oak Ridge (1980) and U.S. NRC (1977).

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APPENDIX A

MONTHLY DATA TABLES

Data from the continuously monitored meteorological parameters collected at the Cooper Nuclear Station were reduced to hourly averages, reviewed for errors, scaled for calibration, and prepared for further analysis by computer. The hourly average values are presented in the monthly data tables in this section.

Data strip charts were reduced to hourly average values using an automatic digitizer. The averaging period was centered on the hour; that is, the hourly average for 1400 was obtained from the data trace between 13:30 and 14:30 on the strip chart. The hourly average values were computed from a minimum of 15 minutes of strip chart data trace. Precipitation data was reduced manually by totalling the number of tick marks (each tick mark equaling 0.01 inches of precipitation) within an hour centered on the hour as for the other parameters.

Each table contains one month of data for one parameter. The tables are captioned with the parameter name, unit of measurement, site name, month, and year. The mean hourly average for each hour of the day is shown in the last row of the main table. The mean hourly average, maximum hourly average, and minimum hourly average for the month are shown beneath the main table. The number of valid observations and the percentage of data recovered also are shown beneath the main table. Daily statistics are shown at the foot of the page. These statistics are the daily maximum, daily minimum, and daily mean hourly averages. Beneath the daily statistics table, the mean daily maximum and mean daily minimum hourly averages are shown. Totals, rather than means, are reported for precipitation data. Only the hourly average values, number of valid observations, and the percentage of data recovered are reported for wind direction data.

The notation "-M-" in the tables indicates a missing data value. The value may be missing because of any of several reasons: equipment failure, power failure, calibrations, recorder inking problems, or sensor icing.

ARRANGEMENT OF MONTHLY DATA TABLES

ARRANGEMENT OF MONTHLY DATA TABLES (CONT.)

318 FT WIND SPEED (MPH)
COOPER NUCLEAR STATION
BROWNVILLE, NEBRASKA

JUL-1981

DAY	HOUR 0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	13	12	9	9	8	7	8	7	6	7	6	5	7	7	8	8	10	9	9	9	14	12	11	12
2	11	8	6	7	8	9	8	6	5	6	4	2	4	7	9	9	10	11	11	10	11	12	11	12
3	11	12	10	10	12	9	8	12	7	8	11	11	11	13	12	12	14	15	7	10	12	10	7	7
4	8	9	13	11	14	14	15	15	16	16	14	16	15	16	13	15	15	14	12	11	10	12	13	11
5	10	10	12	12	10	9	8	9	9	8	10	9	9	9	10	12	12	11	9	9	9	12	11	8
6	6	5	4	3	4	3	4	4	2	2	3	4	5	6	7	6	8	8	11	12	13	13	14	14
7	15	13	10	11	11	11	10	10	8	8	8	9	14	14	15	17	18	18	19	19	16	13	15	14
8	14	13	14	13	13	15	14	15	17	15	16	19	19	18	22	24	20	20	19	13	9	6	9	7
9	8	7	4	7	10	10	11	10	8	8	7	4	5	4	4	4	3	4	7	8	8	10	10	11
10	12	13	11	12	10	6	6	5	7	8	10	12	11	11	12	16	17	18	18	16	14	15	18	20
11	18	16	15	13	11	-M-	-M-	-M-	15	18	19	18	18	17	19	20	22	19	21	19	16	15	18	19
12	18	16	13	11	14	16	16	16	16	18	18	17	18	18	22	22	20	19	18	18	16	15	13	14
13	12	11	10	14	13	12	13	12	12	11	10	9	9	11	12	13	14	14	15	15	14	15	14	14
14	10	9	11	10	12	14	12	11	11	12	12	13	14	16	16	16	17	19	18	16	16	10	18	14
15	14	19	10	6	7	9	12	12	12	13	8	9	5	2	2	5	8	9	8	11	11	9	11	11
16	11	5	3	7	10	7	11	7	6	7	7	4	6	6	5	7	6	6	8	9	12	12	12	13
17	13	21	8	7	6	10	8	3	3	2	1	2	2	2	4	6	12	5	10	12	5	6	7	9
18	8	7	6	8	9	6	9	9	2	1	4	6	5	7	7	7	4	3	4	5	3	2	4	4
19	3	5	6	5	3	4	1	0	5	1	4	4	4	3	6	10	10	9	7	2	0	2	7	7
20	9	11	10	11	7	7	5	5	9	6	7	10	9	9	6	7	7	5	3	2	4	8	9	6
21	8	6	5	5	1	6	9	8	6	9	15	8	12	19	12	11	11	6	6	9	8	7	6	7
22	7	6	7	5	6	7	12	8	10	10	11	9	12	19	15	17	17	15	14	13	15	16	15	15
23	13	13	16	10	8	4	4	2	1	3	1	3	1	1	3	4	6	6	8	7	8	11	11	11
24	9	9	10	8	8	11	9	6	12	12	11	28	9	5	4	6	6	5	9	7	6	9	9	10
25	7	13	16	12	10	9	13	2	10	8	5	2	4	7	6	1	2	2	1	7	10	10	10	10
26	11	9	9	8	14	11	7	8	6	5	8	9	14	8	11	7	12	11	15	11	13	12	10	11
27	9	8	10	9	8	7	7	8	9	6	4	7	9	6	8	9	12	13	12	12	10	10	11	11
28	14	11	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	7	6	5	5
29	6	7	10	9	9	9	9	8	11	12	11	11	10	9	9	9	9	9	10	13	13	12	14	15
30	13	14	16	17	15	15	16	15	13	15	17	16	17	17	16	16	16	14	14	13	14	17	17	18
31	15	13	12	12	12	10	10	11	15	15	16	17	17	16	14	15	15	17	13	14	13	13	13	13
HOURLY MEAN	11	11	10	9	9	9	10	8	9	9	9	10	10	10	10	11	12	11	11	11	11	11	11	11

MAXIMUM = 28 MINIMUM = 0 MEAN = 10 723 VALID OBSERVATIONS (97.2%)

DAILY STATISTICS

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
MAX	14	12	15	16	12	14	19	24	11	20	22	22	15	19	19	13
MIN	5	2	7	8	8	2	8	6	3	5	11	11	9	9	2	3
MEAN	9	8	10	13	10	7	13	15	7	12	17	17	13	14	9	8

DAY	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
MAX	21	9	10	11	19	19	16	28	16	15	13	14	15	18	17
MIN	1	1	0	2	1	5	1	4	1	5	4	5	6	13	10
MEAN	7	5	5	7	8	12	6	9	7	10	9	8	10	16	14

MEAN MAXIMUM = 16 MEAN MINIMUM = 5

318 FT WIND SPEED (MPH)
COOPER NUCLEAR STATION
BROWNVILLE, NEBRASKA

AUG-1981

DAY	HOUR 0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	11	11	13	13	14	12	10	8	8	9	9	12	8	10	10	12	14	11	14	16	17	17	17	17
2	21	10	4	9	8	4	8	6	3	6	7	5	3	4	5	5	5	5	7	8	5	5	6	8
3	7	6	6	4	5	6	6	4	4	4	4	5	4	5	8	10	9	10	9	6	6	10	11	12
4	14	12	13	15	7	2	7	6	5	5	5	9	11	10	8	9	10	10	12	14	14	14	13	13
5	13	15	21	18	6	6	18	17	23	19	14	12	5	2	2	3	1	2	1	4	7	9	10	9
6	6	9	4	8	7	10	6	6	12	10	9	15	12	4	4	6	4	5	7	9	15	13	11	6
7	15	12	12	13	13	14	14	13	13	13	18	19	24	21	22	22	21	16	13	11	16	18	15	14
8	14	12	12	12	11	10	9	6	4	2	3	5	7	8	9	6	7	6	4	2	4	14	13	15
9	13	12	8	8	6	6	7	5	14	6	3	3	5	5	4	4	8	6	4	7	12	13	16	14
10	10	9	9	11	9	6	5	7	5	3	2	4	7	9	10	5	7	10	11	7	5	3	1	1
11	4	4	7	7	8	8	6	6	5	5	7	9	10	9	7	10	7	7	9	9	12	16	17	14
12	12	13	12	10	7	6	7	7	7	7	9	10	12	10	10	9	10	10	9	10	14	15	11	10
13	12	11	11	11	11	11	11	10	11	11	7	7	6	9	14	14	11	10	11	15	-M-	-M-	-M-	-M-
14	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	21	20	15	14	15	14	14	15	12	10	5	7	6	5	6
15	10	11	15	13	15	15	13	14	15	14	13	9	7	7	10	10	11	11	10	7	6	5	12	14
16	12	11	12	10	9	11	13	11	8	8	10	12	14	13	13	12	13	13	14	15	17	17	15	12
17	11	10	10	10	10	10	8	8	7	6	3	7	8	8	9	10	9	8	7	6	8	12	11	8
18	5	7	7	6	4	6	6	5	3	3	5	6	6	5	5	5	5	6	6	7	10	9	8	8
19	7	5	5	4	4	4	5	3	2	2	2	3	4	5	4	3	5	4	4	4	4	2	2	6
20	7	8	8	4	1	1	4	6	4	2	3	2	3	3	2	2	4	5	8	9	8	10	10	9
21	10	10	9	8	8	8	8	8	6	3	6	9	8	9	9	10	9	12	14	15	15	14	15	15
22	17	17	14	13	15	14	13	12	9	11	11	12	12	13	15	14	16	15	13	15	17	16	18	18
23	15	14	11	5	7	12	7	9	7	8	6	5	8	12	8	8	9	7	4	2	2	4	3	3
24	2	2	4	3	3	2	3	4	1	2	2	2	3	5	6	9	8	8	8	10	10	13	14	17
25	16	18	14	17	19	17	11	20	19	20	17	15	15	15	16	13	12	4	5	13	16	14	11	5
26	3	5	8	8	12	6	8	6	6	4	6	5	5	4	7	6	10	10	11	13	12	13	13	11
27	10	13	9	9	10	10	10	8	9	9	10	10	12	10	11	11	13	12	11	9	10	10	9	5
28	7	6	7	6	7	7	4	6	4	5	7	9	10	9	13	10	12	11	7	6	7	9	6	2
29	2	4	3	4	3	2	5	7	5	3	5	5	7	7	9	9	9	10	13	15	16	16	17	17
30	16	16	15	13	9	13	14	18	17	11	9	8	8	11	15	16	18	17	18	19	22	22	14	17
31	16	18	20	17	16	17	13	10	11	13	13	14	12	10	10	11	18	18	19	20	14	14	8	9
HOURLY MEAN	11	10	10	10	9	9	9	8	8	8	8	9	9	9	9	9	10	9	9	10	11	12	11	11

MAXIMUM = 24 MINIMUM = 1 MEAN = 9 731 VALID OBSERVATIONS (98.3%)

DAILY STATISTICS

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
MAX	17	21	12	15	23	15	24	15	16	11	17	15	15	21	15	17
MIN	8	3	4	2	1	4	11	2	3	1	4	6	6	5	5	8
MEAN	12	7	7	10	10	8	16	8	8	7	8	10	11	12	11	12

DAY	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
MAX	12	10	7	10	15	18	15	17	20	13	13	13	17	22	20
MIN	3	3	2	1	3	9	2	1	4	3	5	2	2	8	8
MEAN	9	6	4	5	10	14	7	6	14	8	10	7	8	15	14

MEAN MAXIMUM = 16 MEAN MINIMUM = 4

318 FT WIND SPEED (MPH)
COOPER NUCLEAR STATION
BROWNVILLE, NEBRASKA

SEP-1981

DAY	HOUR 0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	14	15	16	16	18	16	14	14	13	12	13	13	13	12	10	9	9	8	7	5	4	4	4	7
2	5	4	3	3	6	6	5	-M-	5	5	5	5	6	6	7	8	10	10	11	12	12	12	12	12
3	14	13	10	9	7	7	9	10	8	9	6	4	2	2	2	7	12	10	8	9	10	8	10	11
4	10	6	6	6	4	4	8	10	8	10	10	9	7	7	8	9	9	10	10	9	12	13	10	11
5	12	14	14	15	13	14	14	13	9	8	9	11	11	12	13	12	12	14	13	15	15	15	17	17
6	17	15	16	17	16	15	15	12	10	11	11	10	10	13	14	11	14	12	14	12	14	13	15	12
7	11	10	13	14	8	17	22	24	24	25	20	21	24	26	23	22	21	19	12	12	13	11	10	12
8	10	10	11	13	11	7	10	8	8	4	6	6	7	8	9	9	9	9	8	7	4	2	6	9
9	10	11	12	12	11	11	11	12	11	10	14	16	14	14	14	14	15	13	13	17	20	19	19	19
10	20	19	20	16	13	14	13	13	11	10	11	12	14	16	17	17	14	15	16	17	18	20	19	18
11	18	16	16	15	15	13	14	11	9	10	11	10	8	6	6	8	10	9	4	4	10	13	19	20
12	18	16	14	11	9	9	9	9	9	4	6	5	5	5	5	3	3	2	4	5	5	7	9	8
13	8	8	8	10	11	9	11	10	9	6	8	11	9	12	12	11	12	11	12	16	18	20	17	16
14	19	19	18	17	17	17	19	19	19	16	15	16	20	21	18	19	17	15	16	18	19	18	19	18
15	16	14	15	17	16	17	17	15	14	9	9	11	10	12	15	21	17	13	12	11	11	16	22	17
16	12	12	12	15	16	16	16	17	16	14	15	21	23	21	20	19	17	18	15	13	14	14	13	12
17	13	13	13	14	14	14	12	12	11	8	8	10	12	11	11	9	10	10	10	8	9	6	4	1
18	1	3	4	6	5	6	9	10	8	5	7	8	7	7	8	9	10	11	13	16	16	16	18	20
19	17	18	18	18	17	14	17	16	13	11	9	7	7	10	10	12	11	11	9	9	10	10	11	12
20	15	12	11	11	12	11	9	9	6	7	8	7	8	11	15	16	15	16	16	16	14	18	16	15
21	12	12	9	12	19	20	14	15	15	13	10	10	12	14	11	12	11	9	11	13	10	9	11	12
22	11	11	10	9	10	8	12	15	12	14	11	12	14	15	10	10	12	12	14	17	19	19	18	18
23	19	18	18	17	16	17	14	14	15	14	11	12	14	15	16	15	16	15	16	15	15	17	16	13
24	10	10	10	13	5	7	12	17	18	16	16	14	14	16	19	19	19	13	13	12	14	13	12	9
25	12	20	17	11	10	14	14	11	10	12	13	14	12	14	13	13	14	12	11	16	15	15	14	14
26	17	20	20	20	21	15	3	7	11	18	26	28	27	22	19	16	16	13	9	12	13	14	9	11
27	8	5	6	7	2	4	-M-	-M-	6	5	7	8	7	8	7	8	8	6	8	10	12	9	7	6
28	9	10	10	12	13	14	14	17	13	15	16	14	14	17	17	18	17	18	17	16	19	21	21	19
29	19	17	15	19	19	19	16	14	15	16	19	22	22	23	22	25	25	23	20	19	19	22	24	21
30	21	21	19	19	20	15	14	19	20	20	22	22	21	21	26	25	22	22	20	19	-M-	18	16	19
HOURLY MEAN	13	13	13	13	12	12	13	13	12	11	12	12	12	13	13	14	13	12	12	13	13	14	14	14

MAXIMUM = 28 MINIMUM = 1 MEAN = 13 716 VALID OBSERVATIONS (99.4%)

DAILY STATISTICS

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
MAX	18	12	14	13	17	17	26	13	20	20	20	18	20	21	22
MIN	4	3	2	4	8	10	8	2	10	10	4	2	6	15	9
MEAN	11	8	8	9	13	13	17	8	14	16	11	7	11	18	14

DAY	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
MAX	23	14	20	18	18	20	19	19	19	20	28	12	21	25	26
MIN	12	1	1	7	6	9	8	11	5	10	3	2	9	14	14
MEAN	16	10	9	12	12	12	13	15	13	13	16	7	15	20	20

MEAN MAXIMUM = 19 MEAN MINIMUM = 7

318 FT WIND SPEED (MPH)
COOPER NUCLEAR STATION METEOROLOGICAL DATA
BROWNVILLE, NEBRASKA

OCT-1981

DAY	HOUR 0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	16	14	16	15	16	16	16	18	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-
2	15	10	6	4	4	5	5	8	7	9	11	10	8	9	11	12	13	14	15	17	18	16	15	14
3	15	15	14	13	15	15	19	20	19	20	19	22	20	21	19	21	22	18	20	17	19	14	18	22
4	20	19	15	15	11	6	8	7	3	2	2	2	5	4	1	1	2	1	5	7	2	5	11	13
5	11	10	11	12	11	11	12	12	16	13	15	18	16	17	20	18	20	20	20	19	14	13	18	16
6	17	18	17	17	19	18	15	15	14	13	14	13	13	14	12	12	11	10	8	8	10	9	7	7
7	8	9	10	11	9	9	11	9	8	13	9	8	9	8	7	6	8	9	12	14	13	15	12	15
8	13	13	10	11	10	8	12	12	13	13	18	16	17	18	18	18	17	18	15	14	15	17	17	15
9	15	15	13	12	12	11	13	11	9	10	11	9	9	9	6	4	4	5	6	4	4	9	3	2
10	2	2	3	3	2	3	2	2	1	1	1	1	1	1	3	5	6	8	11	10	11	14	13	14
11	14	16	16	17	16	14	15	16	15	15	17	19	20	21	22	20	18	15	18	20	19	17	17	21
12	20	21	22	21	21	20	21	20	21	19	19	21	20	16	18	18	17	16	16	17	18	18	19	19
13	18	16	15	16	15	13	16	18	16	15	13	15	15	14	14	12	9	10	9	11	12	11	8	9
14	8	9	10	14	15	10	12	14	12	8	8	6	5	3	4	5	5	8	9	12	13	16	13	15
15	17	18	19	19	15	13	12	12	12	12	11	8	9	5	4	6	5	3	1	4	6	5	7	12
16	9	11	8	9	8	8	5	6	9	7	9	9	6	7	12	12	12	14	13	16	16	11	12	16
17	12	13	15	18	14	15	20	16	14	13	18	21	21	29	37	31	28	28	22	20	20	21	24	28
18	28	30	27	26	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	25	21	16	20	17	15	15	18
19	17	18	15	8	5	8	9	17	20	17	19	21	22	24	27	23	22	17	21	22	23	23	20	20
20	20	21	23	24	22	22	20	21	17	11	8	5	5	5	4	8	12	18	21	22	23	22	21	20
21	19	19	20	22	23	24	23	21	23	22	22	19	19	18	17	17	18	21	22	18	15	22	23	18
22	18	16	16	14	12	10	12	11	10	12	11	9	13	17	18	18	17	16	15	20	23	21	19	12
23	14	15	14	14	16	17	19	20	15	15	14	14	11	9	8	6	5	7	12	17	16	15	20	21
24	19	20	20	19	22	24	24	26	25	25	23	24	21	24	23	20	10	11	12	13	12	9	11	13
25	13	14	10	5	3	1	2	4	12	10	11	14	18	17	16	17	17	17	15	18	16	14	11	8
26	7	9	7	8	10	13	12	11	11	6	8	10	13	14	14	15	15	15	17	19	20	19	19	21
27	20	19	17	15	16	16	15	14	11	11	12	7	6	10	13	14	11	15	15	16	16	18	18	14
28	15	17	16	15	12	15	16	15	15	14	16	17	20	23	24	23	20	22	23	23	23	23	23	22
29	22	23	24	21	20	14	16	17	19	20	22	21	20	22	25	24	25	24	24	25	29	29	29	28
30	26	27	27	26	22	21	22	21	23	25	25	24	20	24	22	23	19	17	11	10	8	8	9	8
31	4	11	20	22	22	22	19	20	21	19	18	19	19	19	18	18	16	18	19	22	24	20	21	20
HOURLY MEAN	15	16	15	15	14	13	14	15	14	13	14	14	14	15	15	15	14	15	15	16	16	16	16	16

MAXIMUM = 37 MINIMUM = 1 MEAN = 15 716 VALID OBSERVATIONS (96.2%)

DAILY STATISTICS

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
MAX	18	18	22	20	20	19	15	18	15	14	22	22	18	16	19	16
MIN	14	4	13	1	10	7	6	8	2	1	14	16	8	3	1	5
MEAN	16	11	18	7	15	13	10	15	9	5	17	19	13	10	10	10

DAY	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
MAX	37	30	27	24	24	23	21	26	18	21	20	24	29	27	24
MIN	12	15	5	4	15	9	5	9	1	6	6	12	14	8	4
MEAN	21	21	18	16	20	15	14	19	12	13	14	19	23	20	19

MEAN MAXIMUM = 22 MEAN MINIMUM = 8

318 FT WIND SPEED (MPH)
COOPER NUCLEAR STATION METEOROLOGICAL DATA
BROWNVILLE, NEBRASKA

NOV-1981

DAY	HOUR 0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	22	23	26	23	26	24	22	23	28	27	25	24	24	22	22	21	20	20	19	18	14	9	9	9
2	8	9	3	5	7	9	-M-	-M-	-M-	17	19	17	11	14	19	18	20	14	12	13	6	3	6	13
3	16	15	16	16	11	11	9	9	6	3	7	9	11	10	9	9	10	10	11	9	9	6	3	5
4	8	9	11	10	12	11	8	11	5	6	4	5	2	8	7	5	5	10	7	6	8	7	8	9
5	10	9	9	8	12	9	11	13	13	13	18	19	21	23	24	24	23	20	18	20	14	15	19	20
6	19	17	15	17	16	12	12	12	12	7	6	6	7	10	11	8	6	8	11	8	10	12	12	11
7	11	9	12	14	14	15	13	14	15	10	9	10	12	14	16	17	20	17	17	15	15	18	17	14
8	13	10	6	11	16	12	16	20	27	24	29	25	23	26	25	28	25	26	24	21	24	22	22	22
9	20	19	18	18	19	17	18	16	18	13	8	6	4	6	6	4	2	1	0	0	2	5	9	14
10	16	19	21	21	17	16	17	17	18	19	20	21	19	16	16	13	10	10	10	13	9	7	3	5
11	5	5	6	8	11	9	7	6	7	7	6	4	3	2	4	3	6	7	10	13	13	13	15	16
12	16	13	11	14	13	15	16	15	14	10	7	11	13	13	14	15	15	14	18	20	21	20	18	17
13	15	16	14	13	15	15	14	15	14	11	14	17	19	20	20	19	18	17	19	20	23	25	25	23
14	19	16	18	18	17	14	15	14	17	19	19	21	22	21	20	18	18	17	21	22	23	21	22	23
15	20	15	15	16	14	12	13	14	13	11	7	6	8	9	15	20	12	7	14	19	20	19	17	17
16	14	13	13	12	12	12	13	12	9	7	1	2	1	5	6	7	6	5	5	7	8	9	5	2
17	0	3	5	5	4	5	4	6	5	2	1	6	5	7	6	8	13	15	21	21	21	19	17	17
18	16	15	15	20	18	14	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-
19	26	25	26	25	27	28	27	27	27	29	31	32	34	35	33	36	34	36	35	32	31	30	27	28
20	25	27	26	23	22	20	21	19	19	18	14	14	14	16	13	11	8	6	8	8	6	3	3	3
21	4	1	2	0	1	2	3	4	4	5	4	5	7	8	7	7	6	9	15	14	16	16	13	11
22	9	9	11	12	10	10	7	7	10	7	4	7	11	13	14	16	16	19	21	22	23	21	23	21
23	18	20	21	22	23	25	21	21	22	23	22	23	26	27	29	29	28	24	22	23	26	25	22	21
24	19	14	12	11	8	6	4	6	5	7	12	10	9	13	14	12	14	17	19	20	19	20	20	19
25	20	20	21	22	22	16	19	18	21	20	16	14	15	9	7	5	6	13	13	12	13	15	18	17
26	18	21	22	24	26	26	23	24	25	26	28	28	29	29	24	23	24	20	18	17	14	13	13	16
27	18	18	20	21	10	10	4	11	8	5	8	13	11	6	4	3	5	9	9	9	6	4	4	4
28	3	4	4	8	12	14	11	8	4	4	6	4	2	2	4	4	3	6	10	8	7	6	5	7
29	5	5	8	7	7	9	5	6	7	6	4	6	6	9	8	11	13	11	17	18	18	15	18	16
30	15	15	19	20	23	26	26	24	27	29	29	27	23	20	18	17	16	15	10	5	6	17	16	12
HOURLY MEAN	14	14	14	15	15	14	14	14	14	13	13	13	13	14	14	14	14	14	15	15	15	14	14	14

MAXIMUM = 36 MINIMUM = 0 MEAN = 14 699 VALID OBSERVATIONS (97.1%)

DAILY STATISTICS

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
MAX	28	20	16	12	24	19	20	29	20	21	16	21	25	23	20
MIN	9	3	3	2	8	6	9	6	0	3	2	7	11	14	6
MEAN	21	12	10	8	16	11	14	21	10	15	8	15	18	19	14

DAY	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
MAX	14	21	20	36	27	16	23	29	20	22	29	21	14	18	29
MIN	1	0	14	25	3	0	4	18	4	5	13	3	2	4	5
MEAN	8	9	16	30	14	7	13	23	13	16	22	9	6	10	19

MEAN MAXIMUM = 22 MEAN MINIMUM = 6

318 FT WIND SPEED (MPH)
COOPER NUCLEAR STATION METEOROLOGICAL DATA
BROWNVILLE, NEBRASKA

DEC-1981

DAY	HOUR 0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	7	18	21	24	32	34	29	29	28	27	28	27	29	26	26	25	23	20	20	22	20	20	15	10
2	4	7	5	8	11	11	11	8	16	13	9	14	17	18	20	17	15	13	14	12	13	10	9	8
3	6	10	18	17	17	16	14	15	24	20	23	33	34	33	36	37	31	31	31	32	32	32	28	28
4	25	22	22	20	24	21	20	16	15	17	14	11	11	12	8	9	9	13	12	12	15	18	19	19
5	18	11	4	4	2	3	-M-	-M-	6	8	9	7	6	8	9	10	14	17	16	19	17	17	18	18
6	24	21	23	20	18	18	17	14	15	17	18	16	19	17	17	17	20	20	16	19	19	18	17	17
7	11	13	24	18	11	11	11	13	15	15	18	20	27	23	23	25	20	21	20	21	18	16	16	14
8	13	11	10	6	10	9	9	7	5	4	4	3	1	0	2	3	3	5	7	4	3	5	4	4
9	9	7	6	7	11	12	10	12	10	7	6	4	5	3	3	4	3	3	3	1	2	3	4	7
10	11	12	12	14	12	12	11	14	16	17	16	16	15	13	14	12	12	11	18	12	8	14	12	8
11	11	12	12	11	12	11	9	10	11	7	7	10	7	5	3	7	4	5	9	10	7	9	9	6
12	6	5	4	3	6	7	6	2	3	3	3	2	2	3	1	0	1	3	2	4	5	5	4	4
13	3	4	4	3	4	7	9	11	8	6	6	8	7	3	3	6	6	5	4	5	5	5	4	4
14	7	9	10	20	24	21	22	18	16	14	13	11	9	5	5	4	3	4	5	4	4	6	9	9
15	11	11	10	6	6	8	5	5	5	6	6	5	2	3	8	6	6	8	7	7	6	8	5	3
16	4	5	6	7	9	10	8	12	13	11	11	13	12	15	17	19	21	22	23	20	21	19	19	23
17	22	16	14	18	19	19	15	15	16	12	10	7	9	9	11	12	11	11	13	13	11	9	9	10
18	9	6	7	8	5	6	4	2	2	2	0	0	0	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-
19	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	2	2	4	2	2	3	3	5	7	7	10	13	15	16	16	11
20	14	14	15	14	13	-M-	-M-	-M-	-M-	-M-	-M-	24	22	21	23	24	26	25	21	20	20	15	17	18
21	17	17	13	10	10	11	7	11	9	-M-	-M-	-M-	-M-	5	2	0	0	4	7	6	3	4	5	6
22	8	7	15	14	17	15	13	11	8	11	12	16	18	18	20	22	21	19	22	19	18	18	15	8
23	5	7	6	4	3	7	8	7	6	7	5	3	4	7	11	14	12	14	17	19	17	21	20	21
24	21	20	19	16	4	5	8	10	14	16	13	11	13	14	13	15	17	17	17	13	13	20	16	15
25	16	14	14	10	10	7	9	9	10	12	8	9	11	11	12	13	12	13	14	12	12	12	10	6
26	3	3	5	6	6	5	7	7	11	10	13	14	13	12	10	10	10	9	11	6	2	1	1	3
27	3	1	0	0	2	5	2	4	8	10	10	7	7	7	7	7	8	7	7	5	9	13	12	19
28	25	26	26	22	18	15	16	17	16	12	10	9	10	8	8	7	7	4	3	4	5	3	3	4
29	6	8	11	11	12	11	10	9	11	14	12	12	9	11	11	10	7	4	6	5	4	12	16	12
30	8	5	4	7	12	15	17	20	17	22	24	24	22	21	21	23	21	23	20	20	20	19	18	14
31	10	12	10	13	14	14	18	20	23	21	20	25	21	23	23	22	21	17	13	14	17	14	13	13
HOURLY MEAN	11	11	12	11	12	12	12	12	12	12	11	12	12	12	12	13	12	12	13	12	12	13	12	11

MAXIMUM = 37 MINIMUM = 0 MEAN = 12 713 VALID OBSERVATIONS (95.8%)

DAILY STATISTICS

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
MAX	34	20	37	25	19	24	27	13	12	18	12	7	11	24	11	23
MIN	7	4	6	8	2	14	11	0	1	8	3	0	3	3	2	4
MEAN	23	12	25	16	11	18	18	6	6	13	8	4	5	10	6	14

DAY	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
MAX	22	9	16	26	17	22	21	21	16	14	19	26	16	24	25
MIN	7	0	2	13	0	7	3	4	6	1	0	3	4	4	10
MEAN	13	4	7	19	7	15	10	14	11	7	7	12	10	17	17

MEAN MAXIMUM = 20 MEAN MINIMUM = 4

318 FT WIND DIRECTION (DEG)
COOPER NUCLEAR STATION
BROWNVILLE, NEBRASKA

JUL-1981

DAY	HOUR 0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	84	81	79	104	116	105	92	103	96	110	96	95	107	133	148	117	113	124	104	101	111	111	115	121
2	120	127	125	116	99	104	107	127	155	166	176	175	152	132	141	146	151	136	125	122	126	122	141	132
3	131	136	136	142	141	152	165	199	226	209	224	225	229	239	235	228	225	221	219	208	208	230	257	268
4	304	349	357	347	342	344	356	357	356	3	20	2	4	18	27	16	8	15	20	44	24	15	17	19
5	21	5	356	358	352	349	351	350	358	353	356	1	4	14	15	11	26	40	29	25	41	48	62	73
6	78	65	75	84	97	110	134	143	205	195	170	153	155	151	148	146	134	128	137	135	129	137	150	158
7	155	155	152	149	141	134	131	132	143	156	147	146	155	161	163	165	169	170	166	173	176	174	172	179
8	181	185	199	199	187	190	203	207	208	207	206	212	203	195	192	210	214	199	229	356	261	119	221	227
9	270	276	318	342	351	8	44	52	47	44	57	59	55	62	71	74	90	87	50	59	73	84	99	119
10	125	133	135	142	150	169	167	177	212	229	205	209	191	203	203	202	200	196	189	189	190	180	179	176
11	180	192	197	197	196	-M-	-M-	-M-	211	224	223	219	223	218	221	210	198	196	197	198	190	178	183	189
12	195	208	208	207	207	211	212	211	212	219	221	224	223	225	224	220	214	207	197	195	200	201	196	200
13	202	210	214	217	214	220	225	231	241	230	228	210	194	186	180	176	171	171	175	180	184	188	191	193
14	181	176	172	174	183	182	187	191	193	194	191	191	188	196	194	196	195	192	192	192	191	109	24	44
15	80	284	271	143	112	160	139	133	134	136	140	140	140	138	72	36	48	51	57	43	51	48	45	50
16	89	108	50	13	20	31	18	38	36	23	1	12	10	50	92	134	111	107	109	99	109	110	118	143
17	177	255	237	164	144	136	200	159	226	229	161	201	207	181	166	96	125	175	166	198	173	136	134	136
18	168	185	139	126	154	179	201	227	180	25	130	113	106	121	143	151	162	150	115	104	158	133	81	104
19	178	130	115	111	138	133	159	139	24	59	3	10	15	260	292	303	309	307	308	302	261	294	325	318
20	243	229	274	42	119	161	222	314	344	354	349	352	3	1	348	353	2	356	344	276	299	308	315	343
21	6	53	122	130	150	84	97	99	40	360	314	70	287	358	24	168	208	88	72	74	76	84	109	114
22	120	122	85	123	138	149	127	156	131	130	121	109	102	125	118	107	107	123	127	124	125	140	121	118
23	104	104	55	297	133	148	178	164	140	20	90	81	160	112	37	70	66	68	85	108	125	142	136	127
24	114	124	139	143	142	135	136	76	4	20	130	165	89	174	124	77	111	252	25	317	246	198	203	176
25	71	132	185	193	212	119	191	238	305	347	64	33	84	2	8	84	113	158	118	84	72	65	43	42
26	52	67	55	50	29	22	44	89	128	99	17	4	24	29	31	27	39	38	47	52	46	46	64	75
27	98	77	55	67	93	100	72	97	134	128	158	198	229	256	276	282	309	327	326	324	326	332	347	360
28	358	355	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	90	125	138	150
29	151	134	155	165	168	161	161	158	176	182	172	167	161	161	158	153	151	164	155	147	149	147	155	159
30	162	170	176	177	167	172	184	189	185	192	192	194	186	187	190	181	188	177	173	172	173	183	180	177
31	185	179	184	184	174	161	169	169	175	168	166	172	173	178	181	179	170	177	170	166	165	164	161	157

723 VALID OBSERVATIONS (97.2%)

318 FT WIND DIRECTION (DEG)
COOPER NUCLEAR STATION
BROWNVILLE, NEBRASKA

AUG-1981

DAY	HOUR 0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	164	164	172	175	182	185	180	186	175	169	172	174	192	192	185	176	179	167	153	156	158	171	172	170
2	256	291	233	107	110	172	177	176	243	285	296	294	283	274	324	340	12	22	25	35	35	82	85	80
3	91	144	164	153	142	139	125	126	125	99	90	117	114	133	162	171	170	185	193	168	144	131	118	143
4	153	182	196	204	205	147	136	129	127	145	150	158	174	163	162	157	147	136	138	130	145	166	171	170
5	171	181	199	282	272	216	187	190	207	195	211	250	292	213	150	136	163	128	119	66	76	78	81	81
6	109	77	73	90	64	254	157	324	348	351	296	295	247	316	9	291	281	263	264	273	307	333	332	312
7	324	322	323	329	338	339	331	321	325	322	321	336	336	341	343	346	347	344	332	320	326	319	318	333
8	343	338	332	335	338	337	342	340	331	314	295	291	299	310	316	297	280	276	243	281	296	331	327	323
9	325	348	343	350	347	336	345	340	2	25	28	16	359	348	349	359	337	323	334	346	345	356	358	358
10	353	354	359	7	2	354	352	355	351	342	323	341	330	331	326	356	354	8	21	19	16	31	8	267
11	251	245	253	260	263	272	281	229	236	230	222	213	217	233	242	231	249	246	235	224	216	218	227	230
12	233	242	248	251	250	250	252	236	231	235	224	222	215	215	207	196	190	187	175	153	144	152	172	184
13	189	196	196	197	198	197	205	205	220	213	185	171	167	160	168	166	161	157	168	165	-M-	-M-	-M-	-M-
14	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	228	234	241	246	241	242	252	242	243	256	281	270	292	304	319
15	344	353	359	6	12	16	19	17	22	25	32	27	49	35	43	40	41	38	46	52	68	70	33	45
16	56	60	44	32	35	32	32	37	44	61	57	63	72	74	66	68	67	61	58	57	64	66	67	72
17	72	76	67	69	61	58	73	88	89	107	123	112	86	82	67	69	70	65	53	51	59	82	92	98
18	91	106	122	124	117	110	111	110	182	101	115	85	93	103	104	106	109	106	108	113	121	128	144	151
19	143	125	96	99	92	84	95	79	78	100	49	155	78	71	57	48	69	118	113	111	133	138	151	126
20	152	159	165	165	-M-	-M-	148	130	148	183	161	143	167	178	185	151	155	152	154	160	148	153	154	167
21	169	175	180	175	170	174	181	184	195	186	197	207	188	168	174	175	181	150	148	150	153	163	166	169
22	169	174	187	195	187	191	201	195	192	200	185	187	185	186	177	181	188	186	169	157	159	165	174	180
23	180	187	191	221	193	176	178	182	184	189	206	207	226	242	225	261	275	254	212	225	218	148	55	139
24	136	88	14	15	6	344	327	54	241	150	145	163	63	23	90	153	151	154	162	159	145	146	147	147
25	141	150	53	32	5	342	183	115	117	147	162	190	197	192	196	195	199	189	172	151	156	184	210	219
26	236	214	197	251	354	46	-M-	165	190	213	233	260	264	301	339	14	358	346	348	341	346	333	332	353
27	350	347	342	336	341	327	320	311	329	331	336	345	341	337	350	333	332	332	350	329	1	7	7	353
28	338	337	344	330	349	346	311	333	343	343	329	352	331	315	325	339	340	346	343	350	347	350	349	327
29	290	243	240	234	209	162	119	96	111	111	120	144	155	147	148	142	142	152	155	171	167	172	168	162
30	150	150	161	171	107	136	120	141	156	170	186	196	190	183	184	186	188	176	181	187	194	195	178	178
31	180	184	195	193	185	183	176	184	187	181	189	210	222	227	246	274	353	354	356	356	6	8	337	318

728 VALID OBSERVATIONS (97.8%)

318 FT WIND DIRECTION (DEG)
COOPER NUCLEAR STATION
BROWNVILLE, NEBRASKA

SEP-1981

DAY	HOUR 0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	333	350	355	1	359	1	2	3	5	3	11	3	356	359	3	18	20	30	37	77	125	128	123	111
2	139	153	157	155	167	155	158	-M-	133	163	157	163	158	152	146	144	145	146	151	151	151	147	159	160
3	159	165	175	181	176	174	176	179	182	199	228	245	183	135	335	326	344	20	11	21	5	344	356	6
4	352	345	341	349	356	23	52	99	114	119	148	158	153	133	144	140	141	135	136	126	121	127	151	152
5	141	150	153	151	155	150	143	145	144	157	156	143	144	143	144	146	151	148	141	137	140	142	143	152
6	152	150	146	148	152	153	150	144	144	142	143	153	173	202	236	224	214	200	-M-	-M-	-M-	-M-	-M-	-M-
7	188	207	-M-	336	313	332	360	359	1	360	360	5	359	359	356	356	355	359	351	350	357	360	341	333
8	343	336	335	333	339	349	357	354	340	342	4	16	1	359	350	352	352	347	348	337	355	82	151	170
9	-M-	-M-	202	203	215	221	221	222	224	222	224	228	235	239	241	245	242	239	229	225	232	228	229	234
10	239	244	247	253	252	247	253	248	252	260	253	241	235	241	235	234	219	214	207	202	195	191	198	204
11	204	206	210	216	210	195	192	189	195	225	243	246	235	241	292	321	343	343	326	310	332	353	3	17
12	20	27	26	29	17	12	23	6	2	358	10	11	354	5	7	11	344	273	189	188	189	172	169	177
13	187	194	193	183	194	205	202	213	220	217	231	240	245	234	241	249	245	242	247	232	236	244	260	312
14	14	16	8	7	11	8	8	11	16	17	21	28	34	34	30	36	41	46	43	36	32	35	28	40
15	48	42	25	16	20	16	22	28	32	28	35	41	53	36	24	21	355	339	325	323	327	344	1	17
16	2	352	343	357	355	352	354	352	357	1	1	4	9	5	2	3	8	4	6	360	356	354	352	354
17	3	359	359	3	6	1	9	7	6	9	8	353	12	12	15	3	8	8	351	354	3	20	35	50
18	118	233	265	292	273	266	281	286	283	279	279	270	245	246	239	228	243	238	222	220	212	213	215	227
19	232	235	244	247	244	247	242	243	244	253	254	240	222	225	232	238	240	225	214	213	202	204	207	209
20	218	213	205	198	199	197	196	189	182	203	206	176	168	176	182	199	197	193	186	186	183	184	190	205
21	253	244	274	305	317	318	326	330	341	352	338	337	333	344	354	356	10	9	8	31	56	75	66	75
22	78	85	93	95	105	90	98	108	103	113	116	126	133	135	119	113	131	99	106	113	120	121	120	133
23	137	139	144	146	146	146	148	150	154	158	165	174	183	191	192	188	187	171	162	161	159	167	170	171
24	174	174	179	212	196	145	158	190	196	200	190	190	184	187	182	178	176	177	173	159	153	157	211	204
25	177	180	190	178	169	189	202	210	217	227	232	231	224	215	203	195	187	178	159	145	153	156	163	179
26	190	204	210	212	210	284	250	203	234	306	341	348	350	344	347	341	343	343	338	340	339	350	351	333
27	319	286	257	264	304	345	-M-	-M-	346	331	8	7	9	358	26	354	341	340	3	14	38	47	70	87
28	121	132	134	126	136	122	128	136	145	150	151	158	160	163	171	175	168	174	169	166	176	180	191	201
29	206	208	214	212	217	220	224	218	224	230	226	228	224	220	222	219	214	208	203	190	184	188	199	204
30	208	214	213	216	216	221	231	230	229	237	240	243	252	269	328	343	353	353	350	346	1	349	335	336

708 VALID OBSERVATIONS (98.3%)

318 FT WIND DIRECTION (DEG)
COOPER NUCLEAR STATION METEOROLOGICAL DATA
BROWNVILLE, NEBRASKA

OCT-1981

DAY	HOUR 0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	333	324	316	311	299	300	294	298	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-
2	76	81	103	137	165	141	139	124	146	158	155	161	174	169	170	159	157	162	159	155	158	162	164	168
3	158	152	157	165	166	163	168	158	159	156	168	164	170	175	160	163	165	169	173	168	178	205	195	207
4	215	222	237	253	265	245	251	276	276	317	18	200	354	344	142	179	193	166	58	140	174	98	42	60
5	81	86	84	103	105	105	111	134	150	178	208	225	248	284	313	323	327	337	350	354	348	335	343	339
6	333	335	332	330	331	320	299	299	320	339	355	6	352	352	352	352	354	356	13	25	39	55	68	64
7	60	66	78	95	112	136	138	143	150	152	162	161	179	185	177	157	159	168	181	178	176	171	170	168
8	173	176	178	175	172	183	173	174	174	179	176	174	169	171	172	165	157	168	160	159	162	161	158	152
9	156	158	171	174	166	169	158	156	168	165	184	193	208	220	171	175	160	150	141	162	162	156	325	184
10	278	288	306	316	285	293	270	265	251	221	349	92	223	193	141	109	104	104	118	134	135	136	127	128
11	125	131	130	129	130	134	137	137	143	144	145	144	155	149	160	161	154	159	156	148	156	151	155	162
12	143	142	139	138	145	152	154	153	151	162	161	164	165	164	163	156	155	151	144	141	148	150	148	152
13	150	153	157	162	162	154	148	153	152	157	161	161	160	164	162	154	154	139	127	116	110	103	84	45
14	37	25	6	347	337	342	332	337	349	360	353	328	353	351	11	356	359	354	335	340	346	356	357	348
15	349	359	360	359	360	5	1	354	358	6	24	31	20	14	24	26	36	17	329	22	25	31	46	61
16	79	101	122	132	125	123	134	137	124	92	136	150	163	123	141	118	130	117	125	146	165	165	159	154
17	160	157	165	182	205	210	210	214	228	249	278	293	278	289	306	323	328	319	310	294	291	292	294	315
18	316	319	316	306	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	335	337	330	335	332	316	282	274
19	259	261	254	257	251	246	241	237	230	213	214	214	212	214	221	229	232	227	221	211	211	215	221	227
20	227	229	227	224	229	227	221	221	232	246	265	276	356	19	360	15	28	33	28	30	31	33	31	28
21	33	36	22	16	14	17	18	14	15	15	18	20	17	12	13	14	11	357	356	5	360	3	5	9
22	5	11	17	11	5	1	4	4	3	2	2	351	339	341	341	337	336	337	337	342	6	5	360	336
23	336	337	344	342	323	319	321	324	317	316	341	343	329	309	284	290	266	210	187	183	179	181	184	188
24	182	183	178	170	175	178	185	191	195	199	200	203	206	212	214	216	204	180	161	149	138	132	144	173
25	177	174	186	180	173	178	153	54	4	8	9	21	18	21	22	23	32	40	38	38	44	60	74	109
26	106	108	142	156	169	163	166	166	169	180	185	195	197	198	210	213	216	206	196	196	195	197	197	197
27	210	217	213	202	203	207	226	232	213	220	233	230	204	203	206	208	196	206	195	174	182	193	198	197
28	194	191	190	189	185	178	174	172	167	179	178	168	172	171	169	168	167	168	175	180	182	180	180	179
29	178	182	188	192	183	170	180	169	175	182	188	181	176	176	178	182	183	179	177	180	187	190	187	190
30	185	185	184	185	184	182	182	192	195	196	199	200	197	206	204	206	205	217	213	207	191	196	207	244
31	283	321	8	7	10	14	12	9	4	5	5	5	13	17	21	28	32	42	44	38	41	36	39	41

716 VALID OBSERVATIONS (96.2%)

318 FT WIND DIRECTION (DEG)
COOPER NUCLEAR STATION METEOROLOGICAL DATA
BROWNVILLE, NEBRASKA

NOV-1981

DAY	HOUR 0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	14	19	29	25	33	36	34	37	47	52	62	76	70	69	89	94	89	95	96	102	224	235	232	249
2	283	323	69	5	360	6	-M-	-M-	-M-	101	109	154	148	135	140	154	176	183	191	176	159	108	46	26
3	33	43	41	40	26	19	8	359	340	287	221	200	201	200	206	200	210	195	190	186	217	241	276	11
4	9	31	15	5	9	27	22	6	12	32	59	9	190	211	230	237	253	308	296	283	292	290	303	297
5	294	309	327	296	293	289	293	309	311	337	347	344	353	352	352	348	353	353	350	343	340	337	338	342
6	343	342	338	321	322	329	331	316	314	316	307	298	289	289	287	288	278	264	267	268	250	258	259	253
7	251	245	242	241	238	238	225	206	202	202	199	196	196	198	191	190	193	193	196	185	184	189	201	207
8	222	246	270	293	292	298	321	358	13	14	20	25	17	19	22	23	25	26	25	22	23	26	27	30
9	31	25	25	20	21	27	24	26	18	25	24	27	16	10	22	29	45	52	298	274	214	225	218	219
10	218	219	223	230	227	223	222	228	231	233	235	237	239	245	245	258	275	267	279	300	325	341	5	16
11	25	24	21	35	70	80	86	107	96	113	109	126	144	146	129	115	105	116	123	134	138	139	143	149
12	159	162	157	159	163	155	160	164	170	174	193	192	193	192	185	187	179	171	167	164	163	166	173	177
13	182	181	188	187	186	190	190	187	195	197	195	198	198	198	198	200	188	180	178	181	190	192	197	200
14	201	204	205	205	205	204	199	205	209	216	214	212	216	215	205	195	197	185	183	187	191	192	198	198
15	194	199	197	204	205	208	226	214	214	236	256	285	314	335	7	7	13	1	339	340	351	353	348	346
16	345	342	342	342	341	334	340	340	337	344	302	217	250	314	306	322	302	304	305	310	324	322	5	328
17	302	249	230	252	254	227	176	179	213	241	184	149	175	178	182	162	151	161	161	171	170	178	185	188
18	185	183	181	178	181	183	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-
19	316	335	326	338	343	346	353	355	355	353	350	351	352	352	349	350	353	353	353	352	352	351	348	350
20	346	345	346	346	348	346	340	328	328	346	342	338	323	322	332	344	351	11	30	35	34	53	74	72
21	92	109	124	139	146	173	172	182	171	178	182	175	194	186	170	178	174	157	150	152	154	156	151	179
22	182	178	190	193	195	201	197	186	189	183	189	155	149	149	148	157	166	160	151	152	160	168	177	179
23	175	189	213	275	325	331	328	322	328	309	310	312	306	309	316	324	324	330	324	347	352	346	348	350
24	5	15	20	31	38	66	89	110	157	159	156	156	149	146	147	157	153	151	154	149	144	147	147	146
25	142	135	137	131	126	134	130	130	136	142	151	169	184	172	129	147	59	81	65	51	43	26	22	20
26	8	352	358	360	359	3	356	346	344	345	340	342	332	325	331	326	333	332	331	341	327	315	312	313
27	320	320	313	320	325	348	340	339	346	348	358	7	1	354	54	41	75	82	81	72	63	70	86	83
28	101	141	108	61	76	89	97	100	114	126	143	105	106	118	36	64	96	78	61	76	101	134	152	151
29	167	160	162	160	156	178	174	160	156	160	161	176	141	140	158	141	142	142	129	119	124	147	132	131
30	123	115	117	122	125	120	120	128	120	119	123	130	131	126	120	125	132	153	160	187	206	234	237	229

699 VALID OBSERVATIONS (97.1%)

318 FT WIND DIRECTION (DEG)
COOPER NUCLEAR STATION METEOROLOGICAL DATA
BROWNVILLE, NEBRASKA

DEC-1981

DAY	HOUR 0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	248	315	324	329	336	345	338	338	336	335	336	336	324	334	333	327	332	319	309	310	307	300	300	290
2	269	259	241	216	204	204	230	254	276	285	296	303	300	312	308	321	317	312	287	290	285	281	247	238
3	229	182	189	184	172	188	209	243	312	330	322	324	327	332	324	324	324	324	315	324	324	324	324	324
4	324	324	325	336	338	336	341	342	321	298	312	314	305	296	280	260	244	240	229	221	219	228	221	221
5	227	248	267	261	205	176	-M-	-M-	183	182	183	185	164	159	167	166	145	151	179	-M-	173	179	179	181
6	-M-	200	199	199	203	205	205	209	201	201	202	225	-M-	-M-	-M-	-M-	-M-	234	232	237	246	250	243	246
7	248	252	258	265	288	283	292	301	320	336	352	352	3	5	355	2	357	357	355	354	354	358	357	358
8	357	354	351	346	344	358	11	37	309	319	293	278	269	260	215	175	133	141	141	201	225	223	237	94
9	74	64	51	45	36	32	34	43	60	58	41	54	29	72	48	62	93	38	13	340	16	33	39	84
10	122	133	133	133	-M-	-M-	-M-	-M-	-M-	135	139	130	130	135	130	125	118	117	121	123	122	133	125	127
11	116	112	107	111	106	115	122	116	122	127	128	135	150	166	177	109	119	140	139	133	134	122	130	127
12	135	132	125	141	140	137	136	141	146	184	137	169	219	211	228	262	316	49	103	133	138	137	138	152
13	175	158	167	163	143	142	147	143	153	172	164	160	162	162	166	118	127	117	123	173	190	211	240	274
14	289	318	331	352	349	353	351	352	354	3	16	27	28	12	13	19	20	346	31	73	116	127	120	123
15	129	126	132	143	147	158	157	160	156	128	122	110	12	333	342	34	40	25	10	20	28	45	66	49
16	43	50	60	75	78	83	87	93	83	79	64	52	52	34	23	19	10	8	5	360	353	354	349	346
17	342	343	333	333	333	331	330	328	334	327	323	319	307	302	297	308	312	311	308	310	318	327	332	327
18	333	344	327	326	331	340	335	326	321	333	334	314	12	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-
19	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	173	151	137	151	176	172	145	133	138	136	117	129	134	131	136	158
20	157	154	154	153	156	-M-	-M-	-M-	-M-	-M-	-M-	175	180	180	185	182	184	185	191	195	195	202	207	214
21	213	221	221	218	224	229	233	225	233	-M-	-M-	-M-	-M-	194	246	177	185	196	208	234	254	276	264	292
22	314	340	354	352	352	354	353	348	341	343	349	350	350	348	352	348	346	336	329	339	337	338	336	326
23	334	314	293	286	253	255	266	270	262	269	262	263	250	250	242	241	250	248	240	245	258	271	265	269
24	273	277	272	278	270	252	242	236	231	227	236	245	242	234	236	227	221	220	222	225	217	210	225	234
25	238	237	231	217	208	204	197	186	194	176	170	173	176	173	172	170	169	150	154	158	155	153	159	169
26	169	161	183	202	217	248	272	283	292	297	306	306	301	295	293	304	307	322	329	334	329	319	310	314
27	340	335	125	172	177	179	164	129	123	125	124	116	86	99	104	117	84	92	62	49	7	4	9	351
28	348	350	350	344	343	343	347	348	346	344	339	325	318	314	303	330	305	287	254	248	225	211	169	184
29	186	177	159	154	154	160	164	169	171	175	179	179	189	189	187	192	192	163	143	154	32	4	7	15
30	28	48	91	118	131	137	146	148	165	172	169	167	165	163	167	168	167	170	173	173	173	179	185	185
31	187	208	249	339	337	334	338	328	329	327	333	326	326	317	317	319	318	317	313	317	319	323	325	330

701 VALID OBSERVATIONS (94.2%)

35 FT WIND SPEED (MPH)
COOPER NUCLEAR STATION
BROWNVILLE, NEBRASKA

JUL-1981

DAY	HOUR 0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	2	2	2	2	0	1	3	4	4	5	4	4	5	7	8	7	7	7	5	4	7	6	4	4
2	3	1	1	1	1	1	2	4	5	5	4	2	3	6	7	8	8	8	6	4	5	4	4	5
3	4	6	5	4	5	3	3	8	6	6	8	8	8	11	10	10	11	11	3	6	6	4	3	4
4	4	4	7	6	7	8	7	7	9	10	11	9	10	10	10	9	10	9	8	5	3	3	3	3
5	3	3	2	3	2	0	1	4	6	6	7	6	7	7	7	7	7	6	5	4	2	2	3	1
6	1	0	0	0	0	0	0	0	2	2	3	3	4	5	6	6	5	6	7	6	4	4	3	1
7	2	1	2	1	3	1	2	4	6	7	9	8	11	12	12	14	15	15	14	13	10	7	7	7
8	7	6	7	5	5	7	7	10	-M-	12	16	17	16	15	17	20	17	16	14	10	4	5	5	5
9	3	4	3	4	5	5	6	6	5	7	6	6	5	5	5	5	4	5	6	5	4	5	4	4
10	5	5	4	5	4	3	3	4	6	8	10	10	10	11	12	15	15	15	14	10	8	7	9	11
11	8	8	8	7	7	7	8	8	12	17	18	17	17	16	17	18	17	15	14	12	9	9	10	11
12	10	10	7	6	7	9	10	11	15	16	16	16	16	17	19	20	18	17	14	12	9	7	6	6
13	5	6	6	8	6	6	8	9	12	11	11	9	10	11	12	14	13	12	12	9	8	6	5	6
14	5	4	3	3	6	9	8	9	11	11	11	13	13	14	14	13	15	15	12	10	9	8	13	9
15	10	13	6	7	6	6	8	9	10	12	9	9	7	5	5	7	8	8	6	7	6	5	7	8
16	6	4	5	6	7	5	8	6	7	8	7	6	7	7	7	8	7	6	6	5	6	7	6	8
17	9	21	5	6	5	6	5	4	6	4	4	4	4	4	6	7	10	6	6	11	4	4	5	5
18	4	3	5	5	5	3	6	6	3	3	5	6	5	7	7	7	6	5	5	4	4	4	4	4
19	4	4	4	4	4	3	4	4	6	3	5	5	6	6	8	9	9	9	7	3	3	3	4	4
20	5	5	6	8	4	4	4	6	9	7	7	8	9	8	6	7	7	6	3	3	2	3	4	3
21	3	2	2	2	3	4	4	4	6	6	13	8	10	13	9	10	11	6	6	6	4	4	3	3
22	3	4	6	4	4	4	7	6	8	10	10	8	10	15	13	14	13	11	9	8	7	9	7	8
23	7	7	11	7	8	4	3	4	4	4	5	5	5	5	5	6	6	6	6	5	4	5	6	5
24	4	4	6	4	5	7	6	6	9	9	10	19	8	6	4	5	4	5	7	7	6	5	5	5
25	6	8	11	9	8	7	9	4	8	6	5	4	5	7	5	4	4	4	3	5	5	5	5	6
26	6	6	6	6	10	8	5	5	6	5	6	8	11	8	9	8	8	9	10	9	9	9	7	8
27	6	5	7	6	6	5	5	5	7	5	4	6	8	8	9	10	11	13	12	10	9	9	10	9
28	8	7	7	8	9	9	8	7	7	6	7	7	7	6	5	3	3	2	1	4	4	2	3	2
29	3	4	6	6	5	7	6	8	10	10	11	11	11	11	11	8	8	9	8	8	7	7	8	9
30	6	8	9	10	9	10	11	10	11	12	14	14	15	15	13	13	13	12	12	10	9	10	10	11
31	10	8	8	8	8	7	8	9	13	13	14	15	15	13	12	12	12	12	11	10	8	8	8	7
HOURLY MEAN	5	6	5	5	5	5	6	6	8	8	9	9	9	9	9	10	10	9	8	7	6	6	6	6

MAXIMUM = 21 MINIMUM = 0 MEAN = 7 743 VALID OBSERVATIONS (99.9%)

DAILY STATISTICS

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
MAX	8	8	11	11	7	7	15	20	7	15	18	20	14	15	13	8
MIN	0	1	3	3	0	0	1	4	3	3	7	6	5	3	5	4
MEAN	4	4	6	7	4	3	8	11	5	8	12	12	9	10	8	7

DAY	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
MAX	21	7	9	9	13	15	11	19	11	11	13	9	11	15	15
MIN	4	3	3	2	2	3	3	4	3	5	4	1	3	6	7
MEAN	6	5	5	6	6	8	5	7	6	8	8	5	8	11	10

MEAN MAXIMUM = 12 MEAN MINIMUM = 3

35 FT WIND SPEED (MPH)
COOPER NUCLEAR STATION
BROWNVILLE, NEBRASKA

AUG-1981

DAY	HOUR 0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	7	7	7	7	8	8	7	7	8	10	10	12	9	11	10	12	12	10	10	11	11	12	13	13
2	13	7	5	6	4	4	4	4	5	7	8	7	6	6	7	6	6	6	6	5	3	3	5	4
3	3	3	3	3	3	4	5	6	5	5	5	6	6	7	8	10	10	9	7	4	2	3	3	3
4	4	4	7	7	3	3	3	3	5	6	6	9	10	10	9	10	9	7	8	9	8	6	4	6
5	6	7	12	13	5	5	12	11	14	12	12	12	6	4	5	4	3	4	2	3	4	4	4	4
6	3	4	3	6	6	8	6	6	8	7	7	10	11	5	5	7	6	7	7	9	8	4	4	4
7	7	3	4	3	4	6	8	10	13	13	15	17	17	16	17	17	16	11	8	7	8	10	9	5
8	6	6	6	5	6	6	5	4	4	4	5	7	7	8	8	7	7	7	5	3	3	3	4	4
9	4	4	5	3	2	4	4	3	9	6	4	4	6	5	4	4	6	5	3	3	6	6	8	6
10	4	4	5	6	4	4	4	5	5	5	5	6	7	9	9	6	5	6	6	4	3	2	3	3
11	3	3	3	3	3	3	3	3	4	5	8	10	10	9	8	9	8	7	6	4	4	7	7	5
12	5	8	9	7	4	4	4	4	5	8	10	9	11	11	9	8	9	7	5	3	3	4	2	2
13	2	5	5	5	5	6	5	4	6	5	4	4	4	6	10	13	10	9	9	11	13	10	10	10
14	10	12	10	9	8	9	13	15	17	17	15	14	13	13	12	12	11	8	6	2	3	3	2	3
15	4	3	6	6	7	9	8	9	11	11	11	8	7	8	9	8	8	8	5	2	3	3	6	8
16	7	6	6	5	6	7	7	7	8	8	7	10	11	9	10	10	10	8	7	7	8	8	7	6
17	6	6	6	6	6	7	6	6	7	6	4	7	6	7	8	8	7	5	4	4	4	5	4	3
18	3	3	3	3	4	3	4	3	4	4	5	6	6	6	6	6	5	5	5	3	3	3	2	4
19	4	4	3	4	2	2	3	4	3	3	4	5	6	6	5	5	5	5	5	3	3	4	3	3
20	3	2	2	3	1	2	2	2	2	3	4	5	5	5	5	5	6	6	6	4	2	2	3	2
21	2	2	2	3	3	3	2	2	4	5	7	9	9	9	9	9	9	9	9	7	4	3	4	3
22	4	4	5	5	4	5	5	6	7	9	10	12	11	13	13	13	13	10	8	8	7	7	8	9
23	7	8	5	3	4	6	5	5	6	7	6	6	6	8	6	7	7	6	3	3	3	3	4	3
24	2	2	4	3	3	3	3	4	3	3	3	3	4	5	5	8	8	7	5	3	3	2	5	4
25	7	6	9	9	11	12	8	12	9	11	12	10	10	12	14	12	9	5	5	8	9	7	6	2
26	2	4	4	6	7	5	5	4	5	5	6	6	7	6	6	6	8	9	6	6	5	5	6	5
27	3	6	5	5	6	5	8	7	8	9	9	10	10	9	10	9	11	8	7	4	6	5	5	3
28	4	3	3	4	5	3	4	4	4	5	8	9	10	9	12	10	11	8	5	2	2	3	3	3
29	2	2	2	2	2	3	3	3	4	4	5	6	8	8	9	8	8	8	8	6	7	4	7	7
30	8	8	8	7	6	4	5	8	11	9	9	9	7	9	10	11	11	11	10	10	11	12	9	9
31	7	8	10	9	9	11	7	6	9	11	12	11	12	10	11	10	14	11	14	14	8	8	5	5
HOURLY MEAN	5	5	5	5	5	5	5	6	7	7	8	8	8	8	9	9	9	8	6	6	5	5	5	5

MAXIMUM = 17 MINIMUM = 1 MEAN = 6 744 VALID OBSERVATIONS (100.0%)

DAILY STATISTICS

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
MAX	13	13	10	10	14	11	17	8	9	9	10	11	13	17	11	11
MIN	7	3	2	3	2	3	3	3	2	2	3	2	2	2	2	5
MEAN	10	6	5	7	7	6	10	5	5	5	6	6	7	10	7	8

DAY	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
MAX	8	6	6	6	9	13	8	8	14	9	11	12	9	12	14
MIN	3	2	2	1	2	4	3	2	2	2	3	2	2	4	5
MEAN	6	4	4	4	5	8	5	4	9	5	7	6	5	9	10

MEAN MAXIMUM = 11 MEAN MINIMUM = 3

35 FT WIND SPEED (MPH)
COOPER NUCLEAR STATION
BROWNVILLE, NEBRASKA

SEP-1981

DAY	HOUR 0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	8	8	9	10	10	9	7	9	11	11	12	12	11	11	10	9	7	6	5	3	2	4	3	3
2	3	2	2	3	3	2	2	3	5	7	6	6	7	8	-M-	8	9	8	8	4	2	3	2	3
3	4	3	2	2	2	2	3	3	5	8	6	5	4	4	3	5	6	5	3	4	5	4	5	5
4	4	3	3	2	2	3	5	6	5	8	10	9	-M-	-M-	-M-	-M-	7	7	6	3	3	3	2	2
5	3	2	4	5	4	5	6	5	6	6	8	9	9	10	11	11	10	10	8	7	6	6	6	6
6	6	5	6	8	7	6	6	7	9	10	9	8	8	9	11	9	11	8	7	5	6	7	8	7
7	6	6	7	7	4	10	14	16	17	17	15	15	16	16	16	15	15	11	6	4	2	3	1	2
8	4	2	2	3	4	1	2	2	4	5	5	6	5	6	7	7	6	5	3	1	1	1	1	2
9	2	2	2	2	2	3	3	2	4	9	11	13	11	12	12	11	9	8	6	7	-M-	5	7	6
10	9	10	11	7	6	5	6	6	8	9	10	12	12	14	15	13	12	9	6	4	5	5	6	8
11	8	6	6	6	5	6	7	6	7	9	10	10	7	6	6	8	7	5	1	1	3	4	6	7
12	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	5	4	4	4	5	6	5	4	3	2	1	1	1	1	1	2
13	1	2	2	1	1	1	1	1	-M-	5	8	10	10	10	11	10	10	8	6	8	7	8	9	7
14	7	8	7	8	7	8	9	10	11	11	11	13	15	13	14	11	10	8	6	-M-	5	6	8	8
15	6	6	6	6	6	7	6	7	8	6	7	8	8	7	9	12	-M-	7	6	5	6	10	13	10
16	5	6	6	9	6	7	8	9	10	10	13	15	16	14	14	14	11	11	7	7	6	5	4	5
17	6	5	4	5	6	5	4	5	7	7	6	8	8	9	9	8	7	6	3	3	1	2	1	2
18	2	1	2	2	2	2	2	2	3	6	9	9	8	8	7	8	9	10	-M-	-M-	-M-	4	-M-	8
19	6	8	10	9	8	6	7	8	10	10	9	7	7	9	10	10	9	8	2	0	1	1	1	1
20	4	2	2	4	1	2	2	2	3	6	7	7	9	12	12	13	11	10	8	5	4	-M-	6	7
21	6	-M-	3	6	11	11	8	9	8	11	10	9	10	11	9	10	9	5	-M-	5	4	2	4	5
22	5	6	7	-M-	5	5	8	10	7	10	9	10	11	12	8	7	9	8	7	8	10	10	10	10
23	10	10	11	11	11	12	11	11	12	13	11	13	14	12	13	12	11	12	10	7	7	9	10	8
24	5	4	-M-	-M-	-M-	3	4	6	8	8	8	9	9	10	13	13	13	10	9	8	7	6	6	4
25	6	11	10	6	4	6	7	4	6	9	9	11	11	12	11	11	10	7	6	7	6	7	5	5
26	9	11	11	11	10	8	3	5	6	16	20	20	20	15	14	13	11	8	3	4	4	3	2	1
27	2	2	2	3	2	3	-M-	-M-	2	4	5	6	6	6	6	6	6	3	1	0	2	2	1	1
28	2	2	1	2	2	4	4	7	8	10	12	10	11	15	16	16	15	12	10	8	12	13	12	8
29	8	8	7	10	10	9	10	8	10	10	17	15	17	17	18	18	18	13	8	5	7	10	12	9
30	9	11	11	10	9	4	9	10	12	11	18	18	17	17	18	-M-	-M-	14	10	13	12	14	8	6
HOURLY MEAN	5	6	6	6	5	5	6	6	8	9	10	10	10	11	11	10	10	8	6	5	5	6	5	5

MAXIMUM = 20 MINIMUM = 0 MEAN = 7 688 VALID OBSERVATIONS (95.6%)

DAILY STATISTICS

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
MAX	12	9	8	10	11	11	17	7	13	15	10	6	11	15	13
MIN	2	2	2	2	2	5	1	1	2	4	1	1	1	5	5
MEAN	8	5	4	5	7	8	10	4	7	9	6	3	6	9	8

DAY	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
MAX	16	9	10	10	13	11	12	14	13	12	20	6	16	18	18
MIN	4	1	1	0	1	2	5	7	3	4	1	0	1	5	4
MEAN	9	5	5	7	6	8	8	11	8	8	9	3	9	11	12

MEAN MAXIMUM = 12 MEAN MINIMUM = 3

35 FT WIND SPEED (MPH)
COOPER NUCLEAR STATION METEOROLOGICAL DATA
BROWNVILLE, NEBRASKA

OCT-1981

DAY	HOUR 0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	9	9	7	7	7	8	8	10	9	12	13	13	16	17	16	16	14	11	6	4	7	8	5	6
2	8	5	2	1	1	2	2	3	5	9	10	-M-	9	9	9	10	11	11	10	7	9	9	10	8
3	8	9	8	9	9	10	13	11	9	11	11	15	14	15	13	15	15	14	14	13	13	9	10	11
4	10	7	7	8	4	2	3	2	3	1	2	2	4	4	2	2	-M-	-M-	-M-	-M-	1	5	6	6
5	5	4	4	4	3	4	3	3	6	7	12	15	14	15	15	14	15	14	13	13	5	7	10	10
6	10	11	9	9	11	10	9	9	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	9	7	1	2	2	2	0	0
7	2	1	1	1	2	1	5	3	7	12	9	10	9	8	7	6	7	8	4	0	0	1	2	2
8	1	0	0	0	2	1	3	3	6	11	15	16	14	16	15	15	13	15	6	4	6	7	7	8
9	7	9	7	7	6	4	6	7	5	7	8	7	6	5	4	3	3	4	3	3	3	4	1	2
10	3	3	3	4	3	4	3	4	2	2	2	3	5	3	5	6	7	6	6	6	5	5	6	6
11	4	5	5	4	3	3	3	5	5	10	11	13	15	14	16	16	14	10	10	11	12	9	8	11
12	10	12	12	12	13	13	13	12	13	13	15	16	14	12	13	13	12	11	10	11	11	12	12	11
13	12	11	11	12	13	9	11	12	11	-M-	-M-	-M-	-M-	-M-	-M-	7	6	6	4	4	4	4	-M-	4
14	3	4	3	8	9	6	8	8	7	5	5	6	3	3	4	4	4	6	9	8	9	10	8	8
15	9	9	10	11	9	6	8	6	8	8	9	8	7	8	6	6	7	4	2	1	2	1	2	2
16	2	2	2	0	1	2	3	1	2	2	4	5	8	7	5	6	7	7	6	8	11	7	8	10
17	9	7	8	10	9	8	9	7	7	8	13	15	17	23	26	21	18	18	14	12	11	11	12	18
18	19	19	17	19	20	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	16	14	9	10	8	8	8	11
19	10	10	10	6	5	5	5	7	12	12	16	16	19	20	22	19	17	10	9	9	10	9	9	9
20	9	11	13	15	14	14	11	12	10	12	9	6	5	5	5	7	7	9	11	12	14	13	11	11
21	11	10	12	14	15	16	15	12	16	16	16	15	13	12	11	11	12	13	11	9	7	11	13	10
22	7	8	7	6	5	6	7	6	7	10	9	9	10	12	13	13	12	10	6	9	13	13	10	7
23	7	7	7	7	8	9	9	9	10	11	11	11	10	10	8	8	6	5	5	4	4	3	8	10
24	11	12	13	13	14	16	15	17	17	18	17	17	15	16	16	13	7	6	6	6	3	4	5	6
25	5	7	6	-M-	-M-	-M-	-M-	-M-	7	7	10	-M-	12	12	12	12	11	8	6	7	-M-	4	4	3
26	3	2	2	2	1	3	3	3	3	5	8	9	10	11	12	12	11	9	4	5	5	8	8	9
27	9	7	5	6	6	5	4	4	5	9	-M-	6	6	9	10	10	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-
28	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	13	12	13	13
29	11	11	11	10	10	8	9	9	-M-	-M-	-M-	14	16	18	16	18	17	16	16	16	16	17	17	17
30	16	15	17	17	15	14	15	14	15	16	17	17	14	16	14	17	13	10	5	-M-	3	1	-M-	-M-
31	-M-	8	10	11	11	11	10	11	12	11	9	9	10	10	9	10	7	8	9	12	13	12	12	10
HOURLY MEAN	8	8	8	8	8	7	8	8	8	9	11	11	11	12	11	11	11	10	8	8	8	8	8	8

MAXIMUM = 26 MINIMUM = 0 MEAN = 9 670 VALID OBSERVATIONS (90.1%)

DAILY STATISTICS

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
MAX	17	11	15	10	15	11	12	16	9	7	16	16	13	10	11	11
MIN	4	1	8	1	3	0	0	0	1	2	3	10	4	3	1	0
MEAN	10	7	12	4	9	6	5	8	5	4	9	12	8	6	6	5

DAY	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
MAX	26	20	22	15	16	13	11	18	12	12	10	13	18	17	13
MIN	7	8	5	5	7	5	3	3	3	1	4	12	8	1	7
MEAN	13	14	12	10	12	9	8	12	8	6	7	13	14	13	10

MEAN MAXIMUM = 14 MEAN MINIMUM = 4

35 FT WIND SPEED (MPH)
COOPER NUCLEAR STATION METEOROLOGICAL DATA
BROWNVILLE, NEBRASKA

NOV-1981

DAY	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
	HOUR																							
1	12	14	15	14	14	13	12	13	14	14	14	13	14	12	12	12	10	11	10	10	10	6	7	8
2	6	4	2	4	5	5	5	6	6	8	10	12	10	10	14	13	14	9	7	6	3	3	4	6
3	7	9	9	8	8	8	6	4	2	5	7	7	9	9	7	7	8	5	-M-	-M-	-M-	-M-	-M-	-M-
4	-M-	-M-	-M-	-M-	5	4	3	6	3	5	3	5	1	7	6	6	5	8	6	6	6	5	6	6
5	6	4	4	4	7	5	5	6	8	9	13	16	15	16	18	18	16	13	10	11	-M-	-M-	-M-	-M-
6	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	9	8	6	7	4	3	3	4	-M-
7	-M-	-M-	4	4	5	6	5	4	5	5	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-
8	-M-	-M-	4	4	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-
9	-M-	10	10	9	10	10	9	9	11	10	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-
10	-M-	-M-	-M-	-M-	7	7	8	6	9	13	15	16	16	14	14	11	11	7	3	-M-	-M-	-M-	-M-	-M-
11	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	4	5	3	3	3	6	4	4	-M-	-M-	-M-	-M-	-M-	-M-
12	-M-	-M-	-M-	3	3	3	5	5	6	5	5	9	11	11	12	12	12	8	6	5	6	6	6	5
13	7	6	4	3	5	4	3	5	6	8	9	-M-	14	14	13	13	13	9	9	8	11	11	9	9
14	10	7	9	10	9	8	8	7	9	11	14	15	16	16	15	12	12	11	12	13	12	12	12	13
15	11	10	9	8	7	8	7	6	5	8	9	8	8	10	11	14	8	4	4	8	9	7	5	5
16	6	3	5	3	3	3	3	3	3	3	4	3	3	7	7	7	5	2	-M-	-M-	-M-	-M-	-M-	-M-
17	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	2	4	5	8	7	8	9	8	9	7	10	9	9	7
18	7	7	6	10	10	8	7	2	2	7	11	16	14	12	12	11	8	8	25	13	18	19	20	19
19	19	17	18	17	16	20	19	21	21	21	23	24	24	23	24	25	23	24	24	24	21	22	21	21
20	18	20	18	17	15	15	15	14	15	13	12	12	12	13	12	10	9	6	6	5	3	3	2	3
21	3	2	2	2	3	3	4	4	4	7	7	7	8	9	7	8	7	6	6	4	4	6	7	6
22	2	3	2	3	3	3	3	3	3	5	6	9	9	10	10	10	9	9	11	11	11	11	13	12
23	10	11	10	13	17	17	15	14	14	17	17	18	20	20	23	23	22	-M-	-M-	-M-	-M-	-M-	-M-	-M-
24	-M-	-M-	-M-	-M-	-M-	-M-	-M-	5	6	8	-M-	-M-	-M-	11	12	11	10	11	10	11	9	11	11	11
25	11	12	12	11	11	7	10	8	11	13	12	13	13	11	8	6	6	7	7	8	9	10	11	9
26	9	11	13	16	17	17	16	17	17	19	20	21	22	24	20	18	16	14	12	11	8	6	6	7
27	9	9	10	10	4	5	3	5	4	4	9	10	9	8	6	5	6	6	5	6	5	5	5	4
28	4	5	4	6	6	6	6	5	3	5	6	6	6	5	6	5	6	6	6	4	3	2	2	2
29	3	2	1	3	3	3	1	2	3	4	6	8	7	9	9	9	9	7	7	9	11	8	9	10
30	8	8	10	12	14	16	15	15	17	18	17	16	14	12	11	10	9	9	5	2	2	12	12	9
HOURLY MEAN	8	8	8	8	8	8	8	8	8	9	10	11	11	12	11	11	10	8	9	8	8	8	9	9

MAXIMUM = 25 MINIMUM = 1 MEAN = 9 575 VALID OBSERVATIONS (79.9%)

DAILY STATISTICS

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
MAX	15	14	9	8	18	9	6	4	11	16	6	12	14	16	14
MIN	6	2	2	1	4	3	4	4	9	3	3	3	3	7	4
MEAN	12	7	7	5	10	6	5	4	10	10	4	7	9	11	8

DAY	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
MAX	7	10	25	25	20	9	13	23	12	13	24	10	6	11	18
MIN	2	2	2	16	2	2	2	10	5	6	6	3	2	1	2
MEAN	4	7	11	21	11	5	7	17	10	10	15	6	5	6	11

MEAN MAXIMUM = 13 MEAN MINIMUM = 4

35 FT WIND SPEED (MPH)
COOPER NUCLEAR STATION METEOROLOGICAL DATA
BROWNVILLE, NEBRASKA

DEC-1981

DAY	HOUR 0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	5	11	14	16	18	18	16	16	17	16	16	17	16	15	15	15	14	13	13	15	13	12	7	4
2	1	1	1	2	3	3	4	5	7	7	4	10	11	12	13	10	8	7	7	7	8	3	4	5
3	4	5	8	8	9	9	7	9	16	13	16	25	27	25	28	28	24	24	22	23	24	24	21	20
4	18	14	15	14	17	15	15	11	11	14	12	11	11	12	11	11	-M-	8	-M-	-M-	-M-	-M-	-M-	-M-
5	-M-	6	1	2	1	3	5	4	3	5	6	5	6	6	8	8	8	7	6	7	7	6	9	9
6	10	11	11	11	10	8	8	6	8	10	12	12	13	13	13	12	13	13	10	12	12	11	10	11
7	3	5	11	12	5	3	4	4	7	-M-	-M-	-M-	17	15	17	17	16	12	13	13	12	11	11	9
8	7	6	4	4	6	5	6	-M-	-M-	-M-	5	4	3	-M-	3	4	3	4	-M-	-M-	-M-	-M-	-M-	-M-
9	4	-M-	-M-	5	8	8	9	10	9	8	7	5	4	4	4	4	3	3	-M-	-M-	-M-	-M-	-M-	3
10	6	8	7	9	9	9	9	9	12	13	13	13	12	12	12	11	10	9	13	10	8	11	9	7
11	9	8	7	7	7	8	6	7	7	6	8	10	10	7	6	7	4	5	7	7	4	6	6	5
12	6	4	3	4	6	6	4	2	3	3	5	4	2	3	1	1	1	3	2	3	2	2	-M-	-M-
13	-M-	-M-	-M-	3	-M-	4	4	5	4	2	5	9	6	3	3	4	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-
14	-M-	-M-	7	13	16	15	14	13	13	12	12	12	9	9	8	6	5	5	4	2	4	7	8	9
15	10	9	10	8	7	7	6	6	6	7	8	7	4	4	7	7	7	8	9	8	7	7	6	5
16	5	5	7	5	8	9	7	7	9	7	9	10	10	11	13	14	17	18	16	16	16	15	14	15
17	16	12	10	12	13	13	11	9	11	9	11	10	11	10	12	12	11	9	9	9	5	6	6	7
18	6	3	0	4	3	3	3	3	3	3	3	3	3	3	5	5	4	3	3	0	1	0	0	2
19	2	1	0	1	0	0	0	2	2	0	0	2	4	3	3	4	7	6	4	5	7	9	9	5
20	5	6	4	5	9	8	12	12	12	13	17	18	-M-	16	18	18	18	18	15	14	15	12	13	14
21	14	14	11	8	9	9	7	-M-	-M-	-M-	-M-	-M-	6	3	3	2	1	2	3	3	1	1	2	-M-
22	3	-M-	4	7	8	8	6	5	4	5	7	10	11	11	13	14	14	15	17	14	14	13	11	5
23	2	2	3	2	4	4	4	3	4	6	4	3	8	8	10	11	9	8	8	9	9	8	9	10
24	10	10	11	8	3	4	4	4	7	10	11	9	11	13	11	12	11	9	7	4	4	9	8	9
25	9	8	9	4	5	3	3	3	2	4	4	7	8	8	9	9	8	7	7	7	7	6	6	3
26	2	1	1	1	2	2	1	2	5	8	12	14	11	11	9	9	9	6	6	3	2	1	2	1
27	1	2	1	0	1	1	0	1	1	2	5	4	3	5	5	6	5	5	3	2	5	8	8	12
28	15	16	16	15	13	10	11	12	11	11	8	9	9	9	8	7	7	3	2	2	3	2	3	2
29	2	2	1	1	1	1	1	1	1	3	5	7	7	7	7	5	4	2	2	3	5	8	10	8
30	6	4	2	1	1	4	5	7	7	13	15	18	17	17	16	16	15	15	11	12	10	9	9	7
31	6	7	6	10	11	12	13	18	19	18	17	21	19	21	20	21	19	14	10	10	12	9	8	10
HOURLY MEAN	7	7	6	6	7	7	7	7	8	8	9	10	10	10	10	10	10	9	8	8	8	8	8	8

MAXIMUM = 28 MINIMUM = 0 MEAN = 8 692 VALID OBSERVATIONS (93.0%)

DAILY STATISTICS

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
MAX	18	13	28	18	9	13	17	7	10	13	10	6	9	16	10	18
MIN	4	1	4	8	1	6	3	3	3	6	4	1	2	2	4	5
MEAN	14	6	17	13	6	11	10	5	6	10	7	3	4	9	7	11

DAY	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
MAX	16	6	9	18	14	17	11	13	9	14	12	16	10	18	21
MIN	5	0	0	4	1	3	2	3	2	1	0	2	1	1	6
MEAN	10	3	3	13	6	10	6	8	6	5	4	8	4	10	14

MEAN MAXIMUM = 14 MEAN MINIMUM = 3

35 FT WIND DIRECTION (DEG)
COOPER NUCLEAR STATION
BROWNVILLE, NEBRASKA

JUL-1981

DAY	HOUR 0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	55	50	49	69	88	58	64	85	89	97	92	86	114	131	146	120	115	125	104	104	113	112	109	103
2	113	106	75	73	52	49	94	128	153	160	186	140	148	132	142	146	152	138	127	123	128	120	143	129
3	125	136	141	136	137	148	144	191	213	197	217	217	219	234	228	224	212	217	212	199	200	218	232	255
4	293	345	356	346	343	345	355	359	356	2	13	8	6	17	18	16	11	11	15	38	12	3	6	8
5	9	8	3	359	355	358	354	360	5	12	12	3	4	10	17	17	21	29	26	18	22	7	4	11
6	5	11	23	44	148	37	244	165	164	188	151	144	153	149	144	137	132	120	138	142	134	131	143	162
7	149	154	139	144	143	131	150	141	145	148	143	136	147	157	159	162	165	170	166	174	174	169	171	173
8	176	174	190	184	165	175	191	197	-M-	194	205	209	202	188	191	207	209	203	241	357	86	172	245	217
9	158	206	183	341	339	355	26	29	33	37	70	62	67	62	56	54	69	60	43	46	52	53	75	115
10	142	156	157	152	143	151	175	163	196	230	206	214	194	206	204	203	203	195	188	190	192	176	181	181
11	179	188	199	196	189	184	175	174	198	212	209	206	214	214	209	203	194	193	189	191	182	175	174	183
12	190	199	193	186	190	201	202	197	200	208	206	213	212	219	213	209	204	205	193	188	194	195	173	186
13	191	195	193	199	189	190	198	213	230	223	212	212	186	174	178	173	171	172	172	173	175	179	183	163
14	149	144	162	148	173	172	168	179	182	187	188	183	183	187	192	187	187	184	182	184	180	74	15	26
15	354	291	327	160	119	160	143	139	137	136	129	129	126	156	36	22	45	37	52	26	21	11	29	31
16	75	10	354	0	4	360	6	26	16	10	356	17	15	29	81	121	101	90	91	74	99	95	108	134
17	171	250	197	119	161	148	257	57	216	216	47	140	189	177	149	96	108	193	165	191	198	146	156	150
18	217	218	122	103	155	140	173	194	63	39	114	110	88	101	129	144	151	142	92	86	147	22	34	35
19	52	49	61	62	80	68	76	90	22	33	6	15	26	245	287	301	307	307	310	223	55	36	360	151
20	203	174	224	35	163	221	278	345	342	28	354	359	13	16	14	1	21	16	49	212	66	182	151	28
21	3	201	81	93	91	16	53	60	22	357	313	200	92	354	50	186	209	75	72	77	69	13	184	29
22	69	23	9	131	114	2	123	1	124	130	126	109	107	132	121	115	112	131	139	130	126	142	112	110
23	90	94	27	346	137	165	152	344	93	53	94	77	184	57	45	70	63	52	84	95	115	131	105	96
24	77	107	138	119	131	128	122	43	360	15	136	157	52	164	99	71	63	280	67	163	213	188	91	178
25	45	105	180	192	203	101	184	329	335	358	75	12	36	5	21	72	95	183	102	88	70	45	16	22
26	35	52	49	49	33	20	41	72	115	95	6	358	17	24	19	18	36	32	36	44	39	34	49	58
27	83	64	40	54	73	73	41	75	127	98	150	183	222	258	279	286	313	330	330	330	324	325	345	355
28	354	351	351	341	351	358	1	2	4	17	28	24	50	73	62	31	82	72	85	85	102	180	2	149
29	185	108	154	154	153	145	150	145	167	176	170	171	163	162	155	144	147	153	146	141	142	146	151	154
30	162	166	174	171	160	166	179	180	181	191	190	189	184	187	184	183	179	175	171	166	170	170	170	172
31	177	167	171	174	169	154	157	161	169	163	163	171	171	173	183	179	170	173	167	165	158	157	147	147

743 VALID OBSERVATIONS (99.9%)

35 FT WIND DIRECTION (DEG)
COOPER NUCLEAR STATION
BROWNVILLE, NEBRASKA

AUG-1981

DAY	HOUR 0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	148	149	158	168	173	174	163	164	165	168	170	178	188	190	179	166	175	161	148	149	151	168	167	161
2	245	277	159	77	102	268	153	158	224	273	291	289	297	268	326	357	26	25	17	50	358	40	10	14
3	21	308	84	27	112	128	113	133	110	82	79	109	114	132	157	164	170	186	181	159	65	97	45	176
4	157	166	191	198	101	55	117	87	125	143	142	149	178	158	153	150	142	135	139	125	144	165	163	164
5	152	171	194	283	66	146	174	181	201	189	202	240	293	133	130	124	145	105	85	35	29	10	29	40
6	88	4	100	21	38	258	149	331	346	104	234	290	234	354	359	275	266	259	261	270	299	1	241	186
7	331	40	32	18	351	339	328	307	316	320	315	330	329	332	337	338	346	338	326	300	313	297	321	19
8	342	339	335	324	353	318	343	272	358	357	293	286	294	306	318	294	268	292	191	190	175	343	32	17
9	10	344	297	280	144	220	4	2	7	37	55	42	28	12	34	27	343	308	6	8	337	358	359	3
10	360	343	357	358	26	332	283	359	13	51	353	355	332	336	332	4	357	3	12	7	280	130	143	126
11	174	166	167	143	178	214	194	165	201	236	224	203	222	231	243	230	237	234	219	189	190	205	206	192
12	201	234	243	207	160	153	165	172	181	227	226	227	214	215	204	200	183	177	156	100	184	185	153	120
13	148	168	172	170	182	186	187	183	191	189	158	156	145	138	151	159	158	155	156	164	166	174	176	180
14	181	191	192	188	185	193	198	204	210	219	225	232	236	234	234	239	229	230	236	180	112	97	141	37
15	5	40	359	355	359	6	6	6	10	21	15	22	33	25	28	32	24	28	32	350	10	28	7	21
16	36	39	13	1	4	4	2	8	30	58	51	46	61	64	54	50	60	53	41	40	44	41	32	36
17	50	45	41	35	38	39	57	62	72	93	88	105	92	61	49	62	65	48	30	13	2	26	37	337
18	6	3	19	14	12	9	2	19	69	66	90	60	99	77	97	87	103	94	96	96	25	333	24	359
19	359	1	29	17	21	65	27	16	30	75	58	18	96	48	47	43	71	99	90	88	53	360	171	360
20	3	166	116	2	130	149	187	6	145	162	147	111	145	139	140	117	165	154	151	177	28	19	34	83
21	94	19	39	11	180	185	54	157	169	177	194	206	180	166	170	176	178	147	144	144	163	168	166	162
22	180	188	184	167	172	168	182	167	169	185	176	174	178	189	175	182	186	180	157	147	160	154	165	184
23	180	175	145	65	163	149	131	147	161	183	193	189	220	237	218	251	275	234	117	174	58	259	17	171
24	265	41	359	15	48	22	11	52	3	103	125	51	29	48	126	151	149	156	156	133	75	95	105	155
25	139	155	54	26	1	354	72	81	109	145	157	185	190	188	192	190	192	171	156	147	156	188	200	110
26	22	186	176	276	2	91	172	148	199	207	224	254	253	294	327	25	355	338	334	341	354	324	328	346
27	20	329	342	334	337	324	310	299	319	328	329	338	337	333	353	322	327	325	341	324	344	359	355	320
28	343	338	354	294	315	302	266	340	345	347	330	351	332	315	321	339	337	353	346	16	35	6	141	167
29	154	150	47	77	135	74	140	60	105	101	117	145	157	148	145	141	140	136	143	152	156	165	151	142
30	139	141	144	142	64	122	121	144	147	150	171	189	182	175	178	182	181	168	173	174	185	193	167	160
31	164	174	187	179	173	172	165	166	175	178	183	202	215	211	243	268	345	349	347	347	2	2	269	303

744 VALID OBSERVATIONS (100.0%)

35 FT WIND DIRECTION (DEG)
COOPER NUCLEAR STATION
BROWNVILLE, NEBRASKA

SEP-1981

DAY	HOUR 0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	316	333	346	353	352	351	354	354	356	355	2	360	357	4	360	25	19	34	34	50	87	343	65	4
2	270	95	120	109	169	49	270	58	119	156	161	160	152	151	141	138	138	138	142	213	24	200	166	152
3	164	177	55	20	52	129	174	160	162	190	220	248	124	70	7	321	341	14	6	8	346	340	0	357
4	343	334	354	353	18	7	35	79	105	121	146	144	-M-	-M-	-M-	-M-	136	131	137	100	92	145	250	97
5	136	162	142	139	154	132	137	145	135	139	147	135	132	139	139	137	140	145	147	141	131	133	139	137
6	132	139	141	138	146	138	146	147	143	142	138	144	158	186	220	219	202	189	192	193	190	180	160	187
7	170	184	179	244	318	317	345	344	344	348	351	1	352	354	350	353	349	349	337	333	26	343	209	19
8	347	24	12	359	346	256	360	194	298	350	39	38	16	13	355	339	346	344	2	61	114	122	125	163
9	161	163	166	161	171	163	183	174	187	208	212	216	221	226	225	231	232	222	209	206	210	205	206	203
10	227	228	232	227	215	203	212	202	230	245	244	232	229	223	222	225	213	199	190	186	185	184	196	198
11	192	192	205	205	181	169	176	169	175	206	236	231	211	246	273	302	335	333	35	-M-	-M-	353	2	-M-
12	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	17	18	7	29	16	340	20	19	339	272	334	70	87	59	121	140
13	150	162	149	123	149	145	164	157	165	191	226	236	251	233	234	236	235	228	222	211	218	234	260	316
14	4	5	2	354	353	350	353	2	5	13	18	16	20	23	17	25	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-
15	-M-	-M-	-M-	-M-	-M-	-M-	-M-	10	13	16	25	41	28	20	8	3	351	328	314	318	321	336	352	9
16	353	341	333	344	344	342	346	346	346	352	350	355	356	351	349	347	356	351	354	344	344	350	1	5
17	351	353	351	351	355	353	350	350	4	2	7	351	6	4	5	357	357	2	348	7	18	134	162	140
18	151	137	165	154	158	156	148	158	166	266	270	261	230	238	234	222	233	222	204	199	186	192	206	208
19	223	225	228	221	219	207	212	222	228	244	240	231	213	215	219	223	232	220	173	122	88	69	90	99
20	198	148	153	160	160	152	154	156	145	184	-M-	-M-	-M-	-M-	-M-	187	191	182	174	174	180	174	182	191
21	236	163	168	273	300	310	313	315	328	338	329	326	329	340	343	345	352	6	9	8	24	40	10	32
22	54	68	78	78	84	64	84	109	100	117	115	129	128	133	106	111	127	108	106	104	115	118	120	134
23	134	139	145	146	149	150	150	146	145	151	148	164	169	179	181	180	179	163	151	146	135	154	158	163
24	139	138	-M-	-M-	-M-	84	121	168	173	179	180	176	167	172	168	168	166	165	160	143	143	154	199	174
25	153	168	175	156	144	180	183	182	198	209	215	218	208	198	185	176	173	159	147	142	151	137	139	152
26	174	187	194	196	197	273	159	176	215	288	325	336	342	331	335	332	333	335	346	341	330	2	132	139
27	149	177	173	145	310	295	-M-	-M-	55	7	17	26	16	1	347	349	333	344	5	9	14	48	134	72
28	44	21	68	77	200	106	111	135	144	144	143	150	148	150	160	161	161	164	157	155	167	175	184	188
29	186	185	186	194	200	204	202	197	211	217	209	215	213	208	215	209	208	195	187	166	174	177	188	194
30	195	199	191	195	196	207	211	212	213	217	222	228	231	246	281	321	332	336	332	333	332	340	330	318

680 VALID OBSERVATIONS (94.4%)

35 FT WIND DIRECTION (DEG)
COOPER NUCLEAR STATION METEOROLOGICAL DATA
BROWNVILLE, NEBRASKA

OCT-1981

DAY	HOUR 0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	322	319	303	296	292	286	287	281	280	296	308	313	316	328	331	328	329	334	343	354	20	31	25	43
2	47	48	79	154	133	346	346	77	143	145	141	144	154	149	152	140	138	146	143	143	139	145	144	146
3	134	133	132	143	145	143	145	141	137	136	147	145	153	161	143	140	146	150	157	153	167	185	163	187
4	196	193	210	223	267	136	187	195	172	108	333	84	19	18	108	197	204	67	13	65	13	5	2	16
5	39	39	36	49	41	30	49	97	128	148	185	207	223	258	292	304	304	316	333	335	324	314	327	315
6	310	310	310	306	310	295	272	268	298	319	341	351	345	338	339	340	339	342	6	5	11	13	101	38
7	5	41	19	49	331	172	142	160	148	142	147	150	171	184	167	139	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-
8	-M-	-M-	-M-	-M-	184	140	157	158	160	173	164	161	165	163	159	150	145	157	141	141	134	142	131	137
9	142	142	146	160	145	138	132	138	142	142	171	187	188	214	146	148	128	124	116	140	133	134	40	207
10	12	280	296	296	331	267	254	249	269	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-
11	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-
12	-M-	-M-	-M-	-M-	-M-	-M-	-M-	138	138	150	156	157	157	152	157	144	142	141	134	131	139	141	140	138
13	135	136	144	150	150	133	129	138	132	-M-	-M-	-M-	-M-	-M-	-M-	131	125	122	121	98	91	85	68	10
14	4	6	356	324	327	331	322	327	342	6	337	324	22	36	23	338	5	337	336	351	345	344	354	340
15	338	346	353	354	352	351	356	347	345	346	356	23	18	19	22	18	15	35	27	165	6	5	17	276
16	14	28	22	59	283	19	18	21	26	45	21	67	140	142	124	100	119	107	115	135	157	152	145	141
17	148	140	151	178	193	210	206	201	213	223	259	268	268	271	291	305	324	318	316	301	285	295	286	303
18	304	308	301	293	313	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	324	325	324	315	298	265	252	255
19	251	251	243	219	163	151	161	199	217	204	212	212	204	212	212	220	219	214	207	204	208	203	211	218
20	219	220	216	220	223	222	213	213	223	238	258	270	6	13	11	8	17	23	22	24	25	29	26	25
21	27	29	21	12	11	10	10	11	11	11	16	15	19	7	8	13	8	352	349	357	353	356	357	4
22	5	11	19	12	357	353	6	3	4	8	18	353	333	336	332	333	329	329	314	318	3	5	354	303
23	306	299	310	311	285	287	289	294	300	307	327	339	324	293	267	289	278	204	176	191	198	192	181	183
24	177	180	174	168	170	174	182	186	189	199	198	202	202	208	212	214	194	164	146	137	95	73	132	148
25	159	161	180	133	48	356	25	10	7	7	9	29	14	19	17	14	28	39	31	26	21	20	13	207
26	355	37	148	99	88	182	198	142	164	182	174	188	191	199	209	211	214	200	182	186	183	197	194	190
27	197	200	180	159	162	164	145	124	156	200	223	223	196	198	202	203	189	185	181	180	170	166	192	179
28	165	158	160	159	128	132	131	124	134	158	173	159	166	170	166	161	157	159	176	178	179	176	175	175
29	171	182	184	192	178	160	173	152	169	174	185	181	170	175	176	180	181	175	165	178	182	183	184	185
30	179	180	180	178	178	178	178	189	188	195	198	204	194	201	198	202	204	214	201	172	134	125	150	102
31	58	45	5	4	7	11	9	10	2	1	2	4	6	11	13	16	17	27	35	31	34	27	28	24

669 VALID OBSERVATIONS (89.9%)

35 FT WIND DIRECTION (DEG)
COOPER NUCLEAR STATION METEOROLOGICAL DATA
BROWNVILLE, NEBRASKA

NOV-1981

DAY	HOUR 0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	6	10	18	11	19	19	17	20	31	36	41	54	70	64	78	80	81	79	82	115	213	217	204	244
2	282	326	33	10	10	10	13	9	28	73	87	138	137	118	126	146	172	182	173	174	150	42	13	13
3	12	11	8	11	7	6	5	342	305	242	207	192	191	192	197	184	198	182	168	213	174	51	32	8
4	26	40	50	340	2	31	354	352	27	12	9	346	26	182	216	226	225	285	14	250	262	266	283	2[illegible]
5	266	296	330	243	305	218	223	276	282	312	326	327	334	338	341	341	343	341	328	318	300	298	316	31[illegible]
6	317	324	313	333	343	318	293	271	295	291	278	265	261	261	261	265	255	239	238	157	160	165	151	16[illegible]
7	158	141	180	152	174	179	168	179	182	169	177	188	192	189	180	187	187	180	179	188	198	183	185	199
8	201	194	24	95	309	67	287	338	357	4	6	12	6	4	11	13	12	9	9	9	9	8	10	20
9	20	9	12	3	6	5	2	2	3	7	10	14	15	11	19	16	41	322	254	122	147	163	174	190
10	197	201	194	197	194	199	199	186	198	211	218	219	218	226	222	240	255	248	202	292	93	71	26	70
11	94	134	101	37	30	97	139	114	32	50	85	123	139	133	133	111	91	93	77	88	9	34	279	154
12	155	89	130	160	155	151	152	145	150	142	138	184	182	182	185	182	175	161	154	153	163	164	171	193
13	195	184	169	116	131	141	129	132	146	163	191	196	191	187	188	191	182	166	154	162	177	184	186	191
14	196	189	186	187	189	172	166	171	187	197	198	199	200	203	195	187	188	176	178	181	184	185	192	193
15	185	184	182	190	191	194	213	196	198	213	232	262	298	322	1	352	7	337	321	313	332	355	5	27
16	13	20	324	27	354	246	78	3	192	136	158	183	208	290	285	317	282	281	252	114	103	137	106	167
17	125	126	152	74	96	167	71	105	122	94	132	143	164	172	167	145	130	144	137	159	157	157	182	176
18	160	143	140	145	134	138	134	55	137	152	191	208	218	224	237	242	236	229	300	302	297	287	286	287
19	296	319	306	321	333	337	345	346	348	343	344	344	340	339	336	337	341	341	343	341	340	340	336	341
20	338	335	335	335	337	336	328	314	313	340	334	333	312	311	329	339	350	9	23	34	37	345	64	15
21	30	32	119	38	177	160	171	157	150	163	158	164	180	178	173	173	163	136	139	149	117	146	136	135
22	143	134	147	147	132	154	141	144	156	144	141	124	122	134	134	141	152	131	139	141	145	151	181	176
23	159	185	199	249	303	312	316	301	290	282	288	293	281	295	302	309	312	315	327	339	346	341	347	344
24	351	2	9	17	25	43	58	80	150	147	138	152	137	133	142	153	145	135	136	130	128	127	127	123
25	124	131	133	126	119	113	113	121	141	129	141	162	179	165	103	76	33	36	24	15	15	10	10	8
26	354	351	349	343	347	348	341	335	329	332	328	330	317	322	315	313	322	319	321	335	288	261	262	285
27	279	280	276	301	224	278	241	340	334	8	18	8	355	357	36	38	57	58	56	42	39	52	61	43
28	131	119	67	34	48	55	60	55	61	100	120	82	115	76	38	56	64	49	38	34	46	102	110	59
29	25	61	96	48	48	190	110	108	139	107	140	155	120	135	140	122	136	110	96	113	120	146	-M-	-M-
30	-M-	103	101	109	107	110	114	113	109	107	118	125	118	106	103	112	130	142	145	127	65	215	219	217

717 VALID OBSERVATIONS (99.6%)

35 FT WIND DIRECTION (DEG)
COOPER NUCLEAR STATION METEOROLOGICAL DATA
BROWNVILLE, NEBRASKA

DEC-1981

DAY	HOUR 0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	230	290	309	313	322	333	330	327	327	324	328	328	322	329	324	318	324	309	298	298	294	282	291	332
2	170	171	173	179	175	173	188	216	263	266	284	290	288	297	292	308	306	294	255	253	250	225	190	177
3	156	164	184	163	146	180	196	228	300	313	309	313	322	321	319	316	314	309	299	307	313	319	320	312
4	308	315	307	325	336	332	333	337	305	278	297	308	300	282	269	251	-M-	238	-M-	-M-	204	217	214	223
5	232	247	225	174	172	200	202	188	151	161	162	155	138	135	151	161	129	138	174	195	188	193	196	197
6	197	209	206	204	206	201	198	195	193	198	202	216	226	224	226	232	230	228	225	228	241	244	242	237
7	133	208	237	252	309	227	241	236	339	-M-	-M-	-M-	7	10	347	353	346	351	348	348	347	350	350	354
8	345	318	293	325	339	324	13	15	278	328	274	263	264	47	165	143	106	134	123	135	59	153	81	-M-
9	-M-	-M-	-M-	13	8	15	22	-M-	-M-	44	37	30	29	25	25	63	22	33	356	313	7	317	16	37
10	79	99	-M-	-M-	-M-	-M-	-M-	-M-	-M-	136	139	127	124	127	125	120	109	105	114	119	107	130	123	118
11	97	96	94	92	86	104	105	94	102	115	119	139	149	161	144	104	105	150	138	139	127	115	139	113
12	138	104	79	134	140	145	146	89	143	163	140	149	160	202	196	11	32	47	68	155	104	136	82	132
13	139	104	135	116	153	137	131	130	147	173	169	165	165	149	156	98	136	71	14	130	197	206	213	236
14	272	303	327	345	344	346	345	345	344	355	10	13	17	16	12	14	26	353	24	49	92	124	126	131
15	144	144	146	152	156	169	161	157	149	131	129	112	72	10	352	23	30	22	13	21	24	40	57	41
16	35	40	50	60	60	74	68	79	70	65	50	46	36	29	20	12	10	12	5	360	360	358	349	355
17	348	346	332	335	335	332	334	321	336	325	323	310	299	295	292	307	317	309	300	302	332	315	308	309
18	312	216	321	334	306	346	279	269	270	306	172	195	204	216	244	268	297	19	258	35	125	144	145	108
19	354	214	279	22	229	20	324	205	167	172	197	191	189	171	248	165	140	133	119	167	143	133	144	150
20	138	133	152	159	138	150	188	192	181	184	192	192	189	187	192	192	192	192	193	193	192	195	200	206
21	214	216	216	212	214	220	224	221	230	-M-	-M-	200	214	221	248	167	181	196	212	225	222	273	222	250
22	343	323	354	5	1	2	9	3	349	352	5	2	357	355	354	355	352	344	334	343	343	342	342	316
23	249	312	218	192	209	194	208	184	183	257	238	243	257	252	240	240	252	245	233	238	266	275	275	279
24	281	277	269	262	163	188	177	185	222	234	237	239	237	233	240	226	225	228	230	250	219	220	235	240
25	241	239	227	175	173	138	163	158	152	166	153	166	176	176	175	174	174	149	153	162	160	156	152	139
26	69	51	256	155	167	158	156	161	275	303	311	314	309	303	304	312	317	334	340	341	37	129	194	153
27	358	197	175	98	117	132	63	53	103	130	137	113	89	112	113	133	86	95	60	34	11	13	15	360
28	355	357	355	353	351	353	356	355	355	350	354	338	333	318	309	334	312	276	201	196	187	127	202	161
29	146	158	177	149	165	142	171	159	147	165	152	169	191	195	188	187	166	134	175	290	17	11	13	16
30	15	20	38	93	114	147	146	137	138	177	184	180	176	173	174	175	172	181	178	176	178	178	187	186
31	181	218	251	346	339	339	344	338	342	337	342	336	333	318	322	325	324	328	324	330	328	341	343	339

723 VALID OBSERVATIONS (97.2%)

35 FT AMBIENT TEMPERATURE (DEG C)
COOPER NUCLEAR STATION
BROWNVILLE, NEBRASKA

JUL-1981

DAY	HOUR 0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	21.8	21.2	20.5	19.8	19.5	19.4	19.3	20.2	20.8	20.8	21.1	22.6	23.6	24.6	25.6	26.1	26.3	26.3	26.4	25.8	24.3	22.8	22.0	21.5
2	21.0	20.4	19.9	19.4	19.0	19.8	20.1	20.4	20.8	21.4	23.0	25.7	26.6	27.3	27.6	27.9	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-
3	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-
4	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-
5	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-
6	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	23.7	25.8	27.5	28.5	29.5	30.2	31.1	30.8	29.7	29.8	28.8	27.7	26.3	24.9	24.1	23.5
7	22.3	21.4	21.2	20.8	20.3	20.0	19.9	20.8	-M-	-M-	-M-	-M-	-M-	-M-	28.5	29.0	29.1	29.0	28.3	27.4	26.0	25.3	24.3	23.5
8	22.7	22.1	22.1	21.8	21.6	21.7	22.0	23.1	24.7	26.5	28.8	30.1	30.6	30.9	31.1	31.5	32.0	31.8	30.7	25.0	22.0	21.7	22.1	22.2
9	22.2	21.5	21.5	21.5	21.9	21.5	20.7	20.6	20.5	21.3	22.8	24.1	24.9	26.1	27.1	27.8	28.3	28.1	27.8	27.0	26.0	25.0	24.4	23.1
10	-M-	-M-	-M-	-M-	-M-	-M-	-M-	23.0	25.1	27.3	28.3	29.8	31.2	32.4	32.8	32.9	32.7	31.7	32.1	31.1	28.7	27.6	27.2	26.8
11	26.1	25.6	25.5	25.0	24.6	25.0	25.1	25.6	26.8	28.8	29.9	31.5	33.4	34.1	34.5	34.5	34.5	33.9	32.8	31.7	30.2	29.3	28.6	27.7
12	27.5	26.9	26.3	25.7	25.7	26.1	26.3	26.9	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-
13	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	32.9	33.6	34.4	34.5	34.9	34.6	34.2	33.2	31.6	29.8	28.2	27.5	26.4
14	25.5	24.3	23.9	23.7	23.2	23.5	23.8	25.2	26.5	28.1	30.0	31.8	33.1	34.3	35.0	35.1	35.2	34.6	33.7	32.1	31.3	30.4	26.0	22.8
15	22.2	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	29.8	29.7	29.9	29.7	29.4	28.5	27.5	26.6	25.6	24.1
16	23.1	22.3	22.3	22.0	21.7	21.5	21.6	22.9	24.0	25.8	26.8	27.3	27.8	29.0	30.0	29.7	29.7	30.8	30.4	29.2	27.3	26.3	25.8	25.4
17	25.4	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	26.7	25.3	25.5	24.0	23.5	23.1	23.0	22.7
18	22.3	22.0	21.9	22.1	22.3	22.5	22.3	21.7	21.8	22.0	21.8	21.8	21.7	22.1	22.9	23.8	24.9	25.4	25.2	24.6	24.1	23.6	23.2	23.1
19	22.9	22.9	22.8	22.5	22.7	22.8	22.8	22.9	22.6	23.0	23.7	24.0	24.6	26.0	27.9	28.8	29.3	29.5	29.4	27.9	26.1	25.0	25.0	22.8
20	22.8	22.6	23.1	22.9	21.8	21.4	21.0	22.5	24.0	24.7	26.5	28.4	28.5	29.1	29.4	30.0	30.0	30.0	29.6	27.7	26.0	24.6	23.3	23.5
21	22.1	20.0	20.2	18.9	18.7	19.8	19.7	21.1	22.6	23.1	23.2	23.8	23.7	21.6	20.4	21.0	22.9	24.5	24.8	24.2	22.6	21.6	20.1	20.3
22	19.8	19.3	19.4	18.4	17.7	17.9	18.0	19.4	20.8	22.3	23.4	24.7	25.2	25.1	25.7	26.2	26.7	27.7	26.6	25.4	23.8	-M-	-M-	-M-
23	-M-	-M-	22.2	19.9	19.3	19.0	18.7	19.7	21.0	22.7	23.6	24.4	25.1	26.0	25.8	26.7	27.0	27.1	26.9	26.0	24.9	23.7	22.8	22.2
24	21.5	21.1	20.9	20.5	19.9	19.8	19.6	20.5	21.7	22.2	22.1	21.3	22.2	23.4	24.9	24.5	25.3	25.2	24.3	24.3	22.9	22.3	22.7	22.4
25	22.1	22.2	20.8	19.9	19.5	19.2	19.0	19.5	19.6	19.8	20.4	20.7	21.3	21.5	22.1	23.8	24.3	24.3	24.4	23.8	22.5	21.9	21.1	20.5
26	20.0	19.9	19.8	19.2	19.4	18.8	18.7	18.6	19.1	19.8	19.6	20.0	19.3	19.4	19.6	19.6	19.2	18.6	18.4	18.1	17.9	17.4	17.1	17.1
27	17.2	17.1	17.1	17.6	17.6	17.6	17.3	17.6	18.4	18.7	19.1	20.3	21.3	22.3	22.9	23.1	23.2	22.0	20.6	19.5	18.8	18.5	17.9	16.8
28	15.6	15.1	14.6	14.3	14.4	14.4	14.4	14.2	14.8	15.9	16.3	17.2	17.8	18.4	18.7	18.8	18.9	18.7	18.5	18.2	17.6	16.6	16.4	16.2
29	15.9	16.4	16.0	15.9	15.5	15.5	15.2	15.8	16.4	16.8	17.1	17.9	18.3	19.3	20.6	20.8	20.6	21.1	21.3	21.2	21.2	20.9	20.9	20.7
30	19.8	19.5	19.1	19.0	18.8	18.8	18.7	19.1	19.7	20.4	21.9	23.0	24.3	25.1	25.5	26.0	26.2	26.2	25.8	25.1	24.0	23.2	22.3	22.1
31	21.5	21.4	21.1	20.8	20.6	20.4	20.2	20.8	21.5	21.6	22.0	22.6	23.7	25.0	25.6	25.9	25.9	25.7	25.4	24.9	24.0	23.4	22.8	22.0
HOURLY MEAN	21.8	21.1	21.0	20.5	20.3	20.3	20.2	20.9	21.6	22.6	23.4	24.8	25.5	26.1	26.9	27.3	27.4	27.3	26.9	25.8	24.6	23.8	23.1	22.4

MAXIMUM = 35.2 MINIMUM = 14.2 MEAN = 23.7 583 VALID OBSERVATIONS (78.4%)

DAILY STATISTICS

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
MAX	26.4	27.9	-M-	-M-	-M-	31.1	29.1	32.0	28.3	32.9	34.5	27.5	34.9	35.2	29.9	30.8
MIN	19.3	19.0	-M-	-M-	-M-	23.5	19.9	21.6	20.5	23.0	24.6	25.7	26.4	22.8	22.2	21.5
MEAN	22.6	22.5	-M-	-M-	-M-	27.6	24.3	25.8	24.0	29.4	29.4	26.4	32.0	28.9	27.5	25.9

DAY	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
MAX	26.7	25.4	29.5	30.0	24.8	27.7	27.1	25.3	24.4	20.0	23.2	18.9	21.3	26.2	25.9
MIN	22.7	21.7	22.5	21.0	18.7	17.7	18.7	19.6	19.0	17.1	16.8	14.2	15.2	18.7	20.2
MEAN	24.4	22.9	24.9	25.6	21.7	22.5	23.4	22.3	21.4	18.9	19.3	16.5	18.4	22.2	22.9

MEAN MAXIMUM = 27.7 MEAN MINIMUM = 20.5

35 FT AMBIENT TEMPERATURE (DEG C)
COOPER NUCLEAR STATION
BROWNVILLE, NEBRASKA

AUG-1981

DAY	HOUR 0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	21.8	21.5	21.2	21.0	20.9	20.7	20.5	21.4	22.3	-M-	-M-	-M-	-M-	29.6	29.7	30.0	29.9	29.7	28.2	27.3	26.8	26.7	26.2	25.6
2	23.3	20.5	20.2	20.1	20.2	20.0	19.8	20.1	21.0	21.8	22.8	24.0	25.3	25.8	26.6	27.3	27.3	26.9	26.8	25.8	24.1	22.9	23.0	21.6
3	21.3	20.8	19.8	20.0	18.9	19.3	19.3	19.5	19.3	20.0	21.1	22.2	23.8	24.9	25.5	26.2	26.6	27.1	26.8	26.2	24.6	23.8	23.1	22.2
4	22.4	21.6	22.0	22.1	22.1	21.5	21.4	21.5	22.8	24.3	25.6	27.0	28.0	28.6	29.2	29.6	29.4	29.3	28.7	27.5	27.0	26.5	-M-	25.8
5	25.1	25.1	25.8	23.2	21.3	21.2	21.0	20.8	20.6	22.2	24.6	25.3	26.8	27.4	28.0	28.7	28.9	29.1	27.9	26.9	26.3	25.3	24.2	23.8
6	22.8	23.3	22.5	22.5	22.4	21.9	21.4	21.3	21.7	-M-	-M-	22.2	21.8	22.8	24.3	25.5	26.0	26.4	25.1	24.1	22.7	22.3	21.2	19.0
7	20.5	20.3	19.2	18.5	18.2	17.9	17.4	17.9	19.6	21.2	22.5	24.1	24.6	24.7	25.4	25.5	25.7	25.6	24.6	23.2	21.7	20.7	19.6	19.7
8	18.8	18.2	17.7	17.3	16.7	16.2	16.0	16.8	19.0	20.8	22.4	23.8	25.1	26.4	27.3	27.4	28.0	26.2	23.9	22.8	21.5	21.1	22.0	21.7
9	21.0	20.1	17.9	17.7	15.9	16.3	17.2	18.0	19.6	20.9	22.4	23.5	24.1	24.4	25.6	25.5	25.2	23.5	23.0	22.2	22.3	21.8	20.9	20.3
10	20.0	19.0	19.0	18.4	17.2	15.4	14.7	16.3	17.1	20.4	21.9	22.7	23.3	23.7	23.7	23.8	23.6	22.6	21.5	20.6	18.7	16.7	15.7	14.7
11	13.1	13.0	12.4	12.7	12.2	12.1	-M-	-M-	17.1	19.2	21.0	22.5	23.2	24.3	25.0	25.4	25.7	26.2	25.5	23.4	21.9	20.5	19.8	19.1
12	18.8	17.3	17.4	16.9	16.8	17.0	15.9	16.0	17.8	21.1	23.5	25.2	26.0	26.5	26.5	26.8	26.7	26.2	24.9	23.8	22.6	22.0	21.3	20.5
13	20.1	20.0	19.8	19.7	19.8	19.6	19.3	19.5	19.7	20.4	20.7	20.9	20.8	20.9	21.3	22.3	22.8	23.4	23.4	23.0	22.8	22.8	22.8	22.7
14	22.6	22.6	22.1	21.4	21.5	22.1	22.5	23.4	24.5	25.7	26.8	28.4	29.3	29.8	30.4	30.9	30.6	29.8	30.1	28.4	26.8	25.7	24.7	24.7
15	25.2	23.2	24.2	23.7	23.0	22.3	21.7	21.8	22.3	22.6	22.8	24.0	25.1	26.2	27.2	27.7	27.8	27.5	26.7	25.5	24.4	23.4	24.0	23.0
16	21.4	20.5	19.8	19.0	18.2	17.6	16.8	17.1	18.3	19.6	21.1	22.6	23.5	24.0	24.0	23.8	23.4	23.1	22.3	20.7	19.1	18.0	16.9	16.1
17	15.3	14.7	14.6	14.2	13.7	13.4	13.6	13.9	14.9	16.5	17.4	19.1	19.5	20.1	20.2	20.3	20.4	19.9	19.2	18.6	17.9	17.0	16.1	15.4
18	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-
19	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-
20	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	20.3	22.0	22.4	22.8	23.7	24.1	24.2	23.9	22.9	21.4	19.3	18.1	17.6	16.1
21	15.4	15.3	14.5	13.8	13.3	13.1	12.9	13.4	15.3	18.8	21.5	22.7	23.5	24.2	25.0	25.1	25.3	24.7	23.8	22.2	20.6	19.5	19.4	18.1
22	17.5	16.6	16.3	15.6	15.0	15.2	14.6	15.6	17.9	20.3	22.4	24.1	25.3	26.0	26.1	26.4	26.4	25.8	24.6	23.1	21.7	20.9	21.0	20.4
23	19.3	18.8	17.7	17.2	16.8	16.2	16.7	17.4	18.8	20.0	21.2	22.8	23.4	21.1	19.2	19.0	18.3	18.2	18.8	18.8	18.6	18.4	18.3	17.0
24	17.0	16.5	16.7	16.8	16.1	16.1	16.5	16.7	17.0	17.8	18.3	19.5	21.5	23.2	24.6	25.0	25.4	25.5	25.1	23.7	22.7	22.0	21.4	21.1
25	20.4	20.0	20.8	20.5	20.2	18.3	19.0	18.9	19.2	20.1	20.8	21.7	21.6	22.9	24.4	25.3	24.7	24.8	24.4	22.9	21.2	19.8	19.1	18.9
26	18.8	18.6	18.2	18.6	18.4	18.1	17.5	17.4	17.6	18.2	19.1	19.9	21.1	22.7	23.8	24.5	25.1	24.9	23.4	22.0	21.1	20.0	19.5	19.1
27	18.4	17.9	17.8	17.8	17.7	17.4	17.5	17.7	18.5	19.3	19.0	20.6	20.4	20.8	21.7	21.5	22.9	21.3	21.7	20.3	19.8	19.5	18.9	17.5
28	17.5	17.1	16.8	16.6	16.7	16.6	16.5	17.1	18.2	19.3	20.7	21.9	22.0	22.2	22.6	23.1	23.7	23.2	22.1	20.6	19.6	19.0	17.1	15.9
29	16.0	15.3	15.6	15.4	15.1	14.7	14.6	14.9	15.9	17.9	20.5	23.0	24.2	25.0	25.7	26.3	26.7	26.9	26.7	25.1	23.9	22.5	22.0	20.9
30	20.6	20.5	20.3	20.3	20.2	20.2	20.4	20.8	21.8	23.9	26.2	28.1	29.5	30.7	31.7	31.4	-M-	30.6	29.7	28.0	26.9	26.3	25.0	23.9
31	23.0	22.9	23.0	23.2	22.9	22.7	22.2	22.4	23.1	23.7	23.3	23.1	25.2	26.8	28.3	28.3	24.8	23.8	22.8	21.6	20.7	19.4	18.4	17.9
HOURLY MEAN	19.9	19.3	19.0	18.7	18.3	18.0	18.0	18.4	19.3	20.6	21.9	23.1	23.9	24.8	25.4	25.7	25.6	25.4	24.6	23.4	22.3	21.5	20.7	20.1

MAXIMUM = 31.7 MINIMUM = 12.1 MEAN = 21.6 676 VALID OBSERVATIONS (90.9%)

DAILY STATISTICS

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
MAX	30.0	27.3	27.1	29.6	29.1	26.4	25.7	28.0	25.6	23.8	26.2	26.8	23.4	30.9	27.8	24.0
MIN	20.5	19.8	18.9	21.4	20.6	19.0	17.4	16.0	15.9	14.7	12.1	15.9	19.3	21.4	21.7	16.1
MEAN	25.1	23.2	22.6	25.4	25.0	22.9	21.6	21.5	21.2	19.6	19.8	21.6	21.2	26.0	24.4	20.3

DAY	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
MAX	20.4	-M-	-M-	24.2	25.3	26.4	23.4	25.5	25.3	25.1	22.9	23.7	26.9	31.7	28.3
MIN	13.4	-M-	-M-	16.1	12.9	14.6	16.2	16.1	18.3	17.4	17.4	15.9	14.6	20.2	17.9
MEAN	16.9	-M-	-M-	21.3	19.2	20.8	18.8	20.3	21.3	20.3	19.4	19.4	20.6	25.1	23.1

MEAN MAXIMUM = 26.2 MEAN MINIMUM = 17.3

35 FT AMBIENT TEMPERATURE (DEG C)
COOPER NUCLEAR STATION
BROWNVILLE, NEBRASKA

SEP-1981

DAY	HOUR 0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	17.5	17.4	17.2	16.7	15.8	14.8	13.6	13.5	14.2	15.2	16.2	17.3	18.6	19.6	19.9	19.5	19.6	19.3	18.6	17.4	15.6	15.2	13.8	13.6
2	13.5	12.0	11.0	9.2	9.0	9.7	9.6	10.3	12.0	13.8	16.0	17.2	18.2	19.4	20.4	21.2	21.5	21.6	20.9	-M-	-M-	-M-	-M-	-M-
3	-M-	-M-	-M-	-M-	14.0	13.7	13.6	14.2	16.0	19.5	20.9	21.8	23.4	25.1	24.6	24.1	23.1	22.3	22.3	21.6	20.9	20.5	20.4	19.8
4	19.0	18.6	18.2	18.5	18.4	18.7	18.8	18.4	18.4	19.4	21.0	22.3	23.5	23.8	24.0	24.0	24.4	24.2	23.2	-M-	-M-	-M-	-M-	-M-
5	-M-	-M-	17.2	17.0	17.2	16.9	16.9	17.3	18.4	19.7	21.5	22.3	23.2	24.4	24.9	25.1	25.2	24.9	23.8	22.5	21.1	20.3	19.8	19.4
6	19.1	18.5	18.3	17.8	17.4	17.0	17.9	17.5	18.7	20.2	22.0	23.9	25.5	25.2	24.2	23.8	24.7	23.9	22.3	21.4	21.2	20.8	20.1	20.3
7	20.3	20.2	20.2	20.2	20.3	19.9	19.1	18.6	18.4	18.5	18.9	20.2	21.6	22.4	22.8	23.4	23.5	23.1	21.9	19.7	18.4	17.6	14.7	16.1
8	16.0	14.2	13.8	14.4	14.3	11.2	11.1	11.7	16.1	19.0	20.5	21.9	23.6	24.6	25.3	25.4	25.4	24.9	23.0	19.6	18.0	17.1	15.9	15.1
9	14.4	14.3	14.5	14.5	14.2	13.1	13.3	13.9	17.3	20.2	22.5	24.1	25.3	26.4	27.1	27.6	27.8	27.3	25.3	22.5	20.8	19.7	19.0	17.9
10	17.5	17.2	17.8	17.3	15.3	14.4	14.2	15.4	18.7	21.5	24.1	25.7	26.7	27.7	28.3	28.6	28.3	27.6	25.0	22.3	21.6	21.2	20.8	20.8
11	20.1	19.2	18.5	18.2	18.2	18.6	18.3	18.9	20.3	22.2	24.0	25.2	25.8	26.5	27.9	28.7	28.9	28.2	26.1	24.2	23.3	23.5	22.7	21.7
12	20.6	20.1	19.3	18.2	13.4	13.1	12.6	13.6	17.4	19.6	21.7	24.1	25.5	26.5	26.9	26.9	27.1	25.7	24.5	-M-	-M-	-M-	-M-	-M-
13	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-
14	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	22.7	21.5	19.5	18.6	17.2	16.3
15	15.5	15.3	15.0	14.9	14.9	14.2	13.4	13.6	-M-	-M-	-M-	20.0	20.8	21.3	21.4	19.0	15.8	15.6	15.7	15.1	14.8	14.7	13.9	12.1
16	11.6	10.7	9.7	9.1	8.9	8.6	8.4	8.3	9.6	11.0	12.9	13.9	14.1	13.8	14.2	14.2	13.9	13.6	12.9	11.8	10.5	9.7	9.6	9.6
17	9.6	9.1	8.7	7.9	7.3	6.7	6.5	6.8	8.3	10.4	12.4	13.9	14.9	15.5	15.9	15.9	16.2	15.7	14.6	13.2	10.5	8.2	7.1	5.7
18	4.3	3.7	2.9	2.6	2.3	2.0	2.0	2.4	6.8	11.7	15.1	16.7	17.7	18.6	19.4	19.9	20.2	20.1	18.2	15.5	14.5	13.0	11.3	11.6
19	11.5	11.9	12.0	10.5	9.2	9.6	9.2	10.8	14.0	16.1	18.8	21.0	22.4	24.1	25.3	25.8	26.4	25.9	23.4	21.2	19.1	17.7	16.8	16.8
20	16.5	15.4	15.5	14.5	13.5	13.1	12.4	12.2	14.2	17.2	19.9	22.3	24.1	26.2	27.1	27.9	27.7	27.0	24.6	22.3	21.3	20.3	20.0	19.5
21	17.9	16.5	16.6	15.5	15.6	15.4	15.2	15.1	16.2	17.8	19.6	21.4	22.4	23.0	23.0	24.7	24.6	24.0	22.6	21.5	20.4	20.0	19.2	17.7
22	15.6	14.5	13.4	12.9	12.1	11.6	11.6	11.9	12.4	13.0	14.2	15.5	16.6	17.4	18.3	18.8	19.4	19.9	18.9	-M-	16.3	15.8	15.3	15.2
23	14.9	14.9	14.4	14.2	14.2	14.3	14.1	14.3	14.8	16.3	18.6	21.2	23.9	26.1	27.0	28.0	27.7	26.6	24.9	23.6	22.1	22.2	22.3	-M-
24	20.3	19.9	19.6	20.3	19.7	19.2	18.8	19.3	19.1	19.9	19.8	19.9	20.1	20.3	20.0	18.9	19.7	19.6	19.5	19.1	18.5	18.1	18.0	17.9
25	17.7	18.1	18.3	17.9	17.7	17.9	18.0	18.1	18.9	19.7	20.5	21.9	23.3	24.3	24.8	25.0	24.6	24.2	23.4	22.1	21.6	21.5	20.7	21.0
26	21.7	22.0	22.2	22.0	21.6	21.5	20.2	19.5	21.5	22.7	21.8	20.6	19.7	19.3	19.7	20.8	21.1	20.7	18.4	17.0	16.2	15.5	11.2	10.1
27	9.5	9.1	9.3	9.0	8.8	9.1	-M-	-M-	13.2	15.3	16.9	18.5	19.6	20.6	21.3	21.6	21.7	21.2	19.2	17.7	16.6	12.9	12.4	11.7
28	11.9	12.2	12.5	11.7	11.1	10.7	9.9	9.5	11.3	13.4	15.4	-M-	-M-	-M-	-M-	-M-	23.0	22.9	21.5	20.3	20.1	20.0	19.9	20.5
29	20.5	20.5	21.1	21.7	21.5	21.6	21.3	21.5	22.7	24.3	26.1	28.1	29.9	30.8	31.9	31.9	31.4	30.3	27.9	25.8	25.5	25.0	24.6	23.2
30	22.9	23.4	23.0	22.5	22.4	22.2	21.8	21.5	22.8	24.5	26.2	27.5	28.5	29.1	27.2	21.3	19.4	18.5	17.4	16.6	16.1	15.7	14.7	13.7
HOURLY MEAN	16.1	15.7	15.6	15.2	14.6	14.2	14.1	14.4	16.0	17.9	19.5	21.1	22.2	23.0	23.4	23.4	23.3	22.8	21.5	19.8	18.6	17.9	17.0	16.3

MAXIMUM = 31.9 MINIMUM = 2.0 MEAN = 18.5 645 VALID OBSERVATIONS (89.6%)

DAILY STATISTICS

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
MAX	19.9	21.6	25.1	24.4	25.2	25.5	23.5	25.4	27.8	28.6	28.9	27.1	-M-	22.7	21.4
MIN	13.5	9.0	13.6	18.2	16.9	17.0	14.7	11.1	13.1	14.2	18.2	12.6	-M-	16.3	12.1
MEAN	16.7	15.1	20.1	20.9	20.9	20.9	20.0	18.4	20.1	21.6	22.9	20.9	-M-	19.3	16.1

DAY	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
MAX	14.2	16.2	20.2	26.4	27.9	24.7	19.9	28.0	20.3	25.0	22.7	21.7	23.0	31.9	29.1
MIN	8.3	5.7	2.0	9.2	12.2	15.1	11.6	14.1	17.9	17.7	10.1	8.8	9.5	20.5	13.7
MEAN	11.3	10.9	11.4	17.5	19.8	19.4	15.2	20.0	19.4	20.9	19.5	15.2	15.7	25.4	21.6

MEAN MAXIMUM = 24.1 MEAN MINIMUM = 13.0

35 FT AMBIENT TEMPERATURE (DEG C)
COOPER NUCLEAR STATION METEOROLOGICAL DATA
BROWNVILLE, NEBRASKA

OCT-1981

DAY	HOUR 0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	13.2	13.0	12.0	10.9	10.0	9.5	9.1	9.5	11.4	13.9	16.1	17.7	19.0	19.3	20.0	20.2	20.0	19.3	17.4	15.8	14.6	12.0	10.5	9.
2	7.4	6.2	5.6	5.1	4.6	3.7	2.9	3.5	5.2	7.0	8.4	10.0	12.4	14.1	15.5	16.4	16.7	16.5	15.2	13.4	12.4	11.9	11.9	11.8
3	11.5	11.5	11.7	12.3	12.4	12.6	11.8	10.8	10.4	10.7	10.7	10.0	9.8	9.6	9.6	10.2	10.9	11.9	12.6	12.8	13.1	13.0	12.8	13.8
4	14.0	13.9	13.7	13.2	12.9	12.2	11.4	11.9	13.0	15.1	16.4	17.7	19.2	20.7	21.7	22.4	23.0	23.2	21.9	19.3	18.0	18.0	16.3	15.3
5	14.8	14.5	14.1	14.1	13.8	13.6	13.8	14.2	15.7	20.1	23.7	24.6	25.3	24.4	21.1	17.1	16.7	16.5	15.8	15.3	14.4	14.0	13.8	12.8
6	11.9	10.8	10.2	9.5	9.2	8.8	8.4	7.9	8.8	10.6	12.6	13.7	15.3	15.9	16.5	17.1	17.0	16.2	14.6	13.2	13.0	8.9	7.4	6.0
7	7.2	6.3	6.6	6.3	6.7	6.1	6.4	6.1	7.7	9.5	11.0	12.3	13.1	13.2	13.8	14.7	15.5	15.2	13.6	12.2	10.6	9.5	8.6	8.1
8	7.6	6.7	6.3	5.9	5.7	5.3	4.4	4.8	7.2	10.3	12.1	13.6	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-
9	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	11.6	12.2	12.7	11.5	10.1	10.3	10.8	11.0	11.0	10.7	10.4	10.4	10.3	9.8	9.6
10	9.6	9.4	9.4	9.3	8.9	8.6	7.9	7.7	7.7	7.9	8.7	9.7	10.6	11.6	12.3	13.2	14.5	14.4	13.3	12.0	11.1	10.3	9.2	9.0
11	8.5	8.2	7.9	8.0	7.6	7.6	7.6	8.1	9.5	11.8	13.8	15.2	15.8	16.1	16.3	16.3	16.2	16.2	15.6	15.3	14.2	13.4	13.3	13.5
12	14.0	13.8	13.5	13.0	12.1	12.2	12.4	12.7	12.7	13.4	14.1	14.4	14.9	15.3	15.8	15.8	15.7	15.7	15.3	14.8	14.9	14.8	14.7	14.7
13	14.8	14.8	15.0	15.1	15.1	15.1	14.9	14.8	15.0	15.0	15.4	15.7	16.1	16.6	16.6	16.4	16.3	16.4	16.3	16.0	15.9	15.8	15.7	15.6
14	15.5	15.3	15.4	14.8	12.3	11.4	10.4	9.6	9.9	10.7	11.6	12.7	14.0	15.8	17.2	17.8	17.6	16.8	15.1	14.0	13.2	12.1	11.5	11.0
15	10.2	9.8	9.6	8.8	8.4	8.6	8.4	8.1	8.2	7.9	8.4	9.5	12.2	14.2	15.2	15.7	15.4	15.3	14.1	13.3	12.4	10.2	9.2	11.4
16	8.2	9.0	8.3	8.7	9.2	9.3	8.7	7.7	8.3	10.2	12.6	13.4	14.6	15.4	15.2	15.7	15.5	15.4	15.0	14.8	14.5	13.8	13.6	13.6
17	13.5	13.5	13.8	14.1	14.1	14.4	14.7	15.3	15.8	16.4	17.7	17.6	17.7	18.8	17.3	12.9	11.4	11.7	11.2	10.5	9.5	9.3	9.0	9.0
18	7.8	6.9	6.4	6.6	7.2	6.1	5.7	5.0	5.7	5.8	6.1	6.6	7.0	7.0	7.7	8.2	7.6	7.2	6.5	6.1	5.2	3.2	2.6	2.8
19	2.8	2.2	1.4	1.0	1.9	-M-	-M-	-M-	4.2	8.4	12.0	14.3	16.2	18.1	19.6	20.9	20.9	20.1	17.6	16.3	14.9	14.8	14.2	13.5
20	13.2	12.7	12.5	12.0	12.0	11.0	10.1	10.2	12.1	13.6	15.3	16.7	18.2	18.5	19.6	20.0	19.5	18.6	16.0	14.8	13.1	11.7	10.9	10.2
21	9.3	8.6	8.1	7.9	7.2	7.0	6.4	6.4	6.2	6.9	8.4	8.9	9.8	10.2	10.2	10.6	10.5	9.0	7.3	6.1	5.2	4.8	4.2	3.4
22	2.3	1.7	1.0	0.6	0.7	1.0	1.3	1.0	1.5	2.1	3.1	4.5	5.8	6.9	7.7	8.2	8.5	7.6	6.6	6.0	4.4	3.0	1.3	0.1
23	-0.9	-1.9	-2.1	-2.7	-3.4	-4.1	-4.5	-4.3	-3.0	-0.9	0.5	1.6	2.2	2.7	3.4	3.9	4.1	3.5	2.2	0.5	-0.0	-0.3	0.0	0.6
24	0.8	0.7	0.7	0.8	1.1	0.8	0.7	1.0	2.0	2.2	2.8	4.4	5.6	6.4	6.8	7.0	7.0	7.0	6.8	6.3	5.9	5.9	5.5	5.1
25	5.0	5.2	5.5	5.1	4.3	4.2	4.0	3.9	3.9	4.9	6.8	9.2	10.5	11.1	11.2	10.7	10.1	9.4	7.9	7.0	5.6	4.7	3.9	2.1
26	2.3	1.9	-0.5	-1.8	-2.2	-2.7	-2.1	-2.5	-0.7	2.8	5.8	7.6	9.2	10.5	12.2	13.3	13.4	12.8	9.5	8.3	7.5	7.5	6.6	6.0
27	5.1	4.4	4.8	4.2	3.0	2.9	3.2	3.4	5.0	8.3	11.1	13.6	15.6	17.5	19.3	20.2	19.9	19.3	16.8	15.1	13.7	13.6	13.3	12.6
28	12.1	11.4	11.1	10.5	8.9	7.6	7.3	7.1	9.0	11.1	13.0	14.0	15.7	17.5	18.5	18.4	18.2	17.6	16.3	14.6	13.9	13.5	13.3	12.5
29	12.0	11.5	11.1	10.6	10.4	10.1	9.7	9.1	10.2	11.4	13.2	14.4	16.0	16.8	19.0	19.8	20.6	20.4	19.4	18.7	18.1	17.3	16.9	16.3
30	15.6	15.2	14.8	14.3	13.9	13.8	13.3	13.2	13.3	14.5	15.3	16.7	16.6	17.3	17.4	17.0	16.2	15.8	14.4	14.4	14.2	13.9	13.7	13.9
31	13.7	13.7	13.3	13.0	12.7	12.1	11.7	11.3	11.3	11.2	10.8	10.5	11.5	12.3	13.2	13.6	13.6	12.9	12.5	12.5	12.0	11.8	11.4	10.5
HOURLY MEAN	9.4	9.0	8.7	8.4	8.0	7.9	7.6	7.5	8.2	9.8	11.3	12.4	13.4	14.1	14.7	14.8	14.8	14.4	13.2	12.3	11.5	10.7	10.2	9.8

MAXIMUM = 25.3 MINIMUM = -4.5 MEAN = 10.9 720 VALID OBSERVATIONS (96.8%)

DAILY STATISTICS

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
MAX	20.2	16.7	13.8	23.2	25.3	17.1	15.5	13.6	12.7	14.5	16.3	15.8	16.6	17.8	15.7	15.7
MIN	9.1	2.9	9.6	11.4	12.8	6.0	6.1	4.4	9.6	7.7	7.6	12.1	14.8	9.6	7.9	7.7
MEAN	14.3	9.9	11.5	16.8	16.8	11.8	10.0	7.5	10.8	10.2	12.3	14.2	15.6	13.6	11.0	12.1

DAY	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
MAX	18.8	8.2	20.9	20.0	10.6	8.5	4.1	7.0	11.2	13.4	20.2	18.5	20.6	17.4	13.7
MIN	9.0	2.6	1.0	10.1	3.4	0.1	-4.5	0.7	2.1	-2.7	2.9	7.1	9.1	13.2	10.5
MEAN	13.7	6.1	12.2	14.3	7.6	3.6	-0.1	3.9	6.5	5.2	11.1	13.1	14.7	14.9	12.2

MEAN MAXIMUM = 15.6 MEAN MINIMUM = 6.6

35 FT AMBIENT TEMPERATURE (DEG C)
COOPER NUCLEAR STATION METEOROLOGICAL DATA
BROWNVILLE, NEBRASKA

NOV-1981

DAY	HOUR 0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	9.1	8.8	9.0	8.7	8.8	8.9	8.7	8.9	9.7	10.4	11.7	12.6	13.3	13.5	15.0	15.3	14.7	14.9	15.0	14.5	11.1	11.0	10.8	10.5
2	10.0	9.8	9.4	9.1	8.6	8.7	9.1	9.6	11.1	12.7	14.1	13.9	14.2	14.7	15.7	16.0	14.6	12.8	11.6	11.7	11.4	11.1	10.5	9.5
3	9.0	8.8	8.2	7.5	7.4	7.4	7.6	7.9	8.5	9.3	9.5	10.4	11.2	11.6	12.5	14.1	13.7	13.0	11.9	11.9	11.2	10.3	9.9	10.1
4	8.8	7.8	9.0	9.0	9.8	9.5	8.9	8.7	8.9	9.0	9.7	9.8	9.9	10.0	10.6	10.6	10.4	9.6	9.5	9.4	9.1	9.1	9.2	9.0
5	9.2	9.2	9.2	9.0	8.6	8.0	7.4	6.7	7.2	9.9	11.7	11.9	12.1	12.6	12.5	12.3	11.8	10.9	9.3	8.1	6.8	5.9	5.2	4.6
6	4.0	3.6	3.1	2.6	2.2	2.0	1.5	0.8	1.5	3.8	6.6	9.2	11.2	13.1	14.0	14.0	13.9	13.0	10.0	-M-	-M-	-M-	-M-	-M-
7	-M-	3.4	3.1	2.9	2.0	1.6	1.5	1.9	2.3	5.5	9.6	11.8	12.0	13.1	14.1	14.7	14.0	12.7	10.6	9.4	9.6	9.6	9.3	8.7
8	8.8	8.3	8.6	7.9	9.1	9.9	8.9	8.7	8.3	7.3	7.1	6.7	6.8	7.1	7.8	8.5	8.0	7.1	5.8	4.8	4.2	3.2	2.5	1.8
9	1.1	0.4	-0.5	-0.9	-1.2	-1.6	-2.3	-2.8	-2.3	-1.7	0.1	2.0	3.6	4.8	5.8	6.0	5.9	5.4	3.6	2.2	0.6	-0.9	-2.1	-0.8
10	-1.6	-1.7	-1.7	-1.5	-1.8	-1.6	-2.0	-2.4	-0.3	2.6	5.7	8.7	10.9	12.8	14.2	15.1	14.5	13.2	10.8	10.1	5.8	4.1	3.7	1.2
11	1.4	0.6	0.3	1.7	1.9	-0.1	-1.4	0.5	1.7	4.4	7.3	9.7	11.7	13.5	14.3	14.8	14.9	13.9	11.6	9.8	8.8	7.8	6.9	6.6
12	5.9	5.0	4.6	4.2	3.8	3.0	2.7	2.5	3.2	4.5	7.6	11.0	13.0	14.7	15.7	16.1	15.6	14.4	12.7	10.0	9.5	9.0	8.5	7.4
13	6.8	6.3	5.2	3.9	4.3	3.9	3.4	3.3	4.4	7.1	10.6	13.1	15.1	15.9	16.5	16.7	16.1	14.7	12.9	11.7	11.3	10.2	9.3	8.7
14	7.8	7.4	7.2	7.6	7.3	7.0	6.5	6.0	6.9	9.0	12.4	15.1	15.7	16.5	16.9	16.9	16.7	15.8	14.5	13.8	13.1	12.4	12.3	12.2
15	12.1	12.1	12.0	11.9	11.9	11.8	11.4	10.3	10.6	11.5	12.7	14.1	14.7	16.5	17.8	18.2	17.8	16.8	14.3	14.0	13.5	12.8	11.5	10.3
16	8.8	4.2	6.0	2.6	1.4	3.3	2.4	0.5	1.7	5.0	9.0	11.6	13.8	15.3	16.3	17.1	16.9	16.5	-M-	-M-	-M-	-M-	-M-	-M-
17	3.4	2.5	4.2	3.5	2.4	2.6	2.8	3.2	2.6	5.3	8.0	11.3	13.9	15.7	17.0	18.4	18.2	16.9	13.9	12.6	13.0	12.9	11.7	11.7
18	11.1	10.3	9.4	9.7	9.2	9.5	9.6	9.4	9.4	11.0	13.8	15.6	15.1	15.0	15.3	15.2	15.3	15.0	10.3	7.8	7.1	6.8	6.5	6.4
19	6.5	5.5	4.8	3.8	3.1	2.7	1.7	1.2	0.5	-0.1	-0.5	-0.5	-1.1	-0.7	-0.6	-0.5	-0.5	-1.1	-1.6	-2.1	-2.5	-2.2	-2.1	-2.6
20	-2.9	-3.6	-4.2	-4.3	-4.6	-4.3	-4.5	-5.2	-5.7	-5.7	-5.1	-4.7	-4.3	-3.5	-2.8	-2.5	-2.3	-3.4	-4.3	-5.0	-5.5	-6.0	-6.6	-6.6
21	-7.1	-7.2	-7.5	-7.1	-7.2	-6.6	-6.6	-6.2	-6.0	-4.6	-2.7	-0.8	0.5	2.1	3.2	4.1	4.1	3.6	1.7	0.7	0.5	-0.1	-0.7	-1.2
22	-1.4	-1.5	-1.7	-1.7	-2.2	-2.2	-3.1	-3.2	-2.9	-0.7	2.0	4.3	5.9	7.6	8.8	9.3	9.2	8.4	7.8	7.0	6.9	7.4	8.4	8.2
23	7.3	7.7	7.2	7.3	6.4	5.5	5.2	4.7	4.5	5.5	7.2	9.4	10.5	11.7	12.8	12.8	11.9	10.3	8.3	6.9	5.7	4.8	3.8	3.5
24	3.6	3.7	3.2	2.9	2.3	2.0	1.6	1.6	1.5	2.0	2.3	3.6	4.5	5.4	6.5	6.8	5.9	5.4	4.5	3.7	3.2	2.7	2.3	2.0
25	2.2	1.8	1.7	1.8	2.6	2.9	2.3	2.3	3.0	4.4	6.8	9.2	10.6	12.2	12.7	14.6	13.9	11.2	9.0	8.1	7.5	6.6	6.0	5.7
26	5.6	5.8	5.7	5.2	4.6	4.3	3.9	3.4	2.5	2.5	2.5	2.2	3.0	4.1	5.2	5.5	5.0	-M-	2.5	-M-	1.0	-0.8	-1.7	-1.4
27	-1.9	-2.3	-2.8	-2.4	-2.5	-3.3	-5.7	-4.0	-3.9	-1.9	-0.7	0.8	1.4	2.0	1.7	1.9	1.2	-0.2	-0.8	-1.1	-1.0	-0.8	-0.9	-0.8
28	-1.2	-1.2	-1.2	-1.6	-2.2	-2.4	-2.8	-2.8	-2.7	-2.4	-1.9	-1.1	-0.7	0.3	1.3	1.3	1.4	0.7	-0.2	-0.8	-1.0	-1.0	-1.5	-1.5
29	-2.3	-3.3	-4.0	-3.7	-4.0	-4.5	-4.0	-3.3	-3.3	-2.6	-1.3	0.7	2.0	3.3	4.8	5.5	6.0	5.7	5.3	4.7	4.8	4.8	4.9	4.8
30	4.8	4.2	3.7	3.7	3.5	3.4	3.3	3.3	3.2	3.1	3.1	3.4	3.2	3.3	3.3	3.9	4.3	4.9	4.8	5.1	4.8	3.5	2.1	1.6
HOURLY MEAN	3.5	3.9	3.7	3.5	3.2	3.0	2.6	2.5	2.9	4.2	6.0	7.5	8.5	9.5	10.3	10.8	10.4	9.7	7.8	7.0	6.1	5.5	5.0	4.6

MAXIMUM = 18.4 MINIMUM = -7.5 MEAN = 5.9 706 VALID OBSERVATIONS (98.1%)

DAILY STATISTICS

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
MAX	15.3	16.0	14.1	10.6	12.6	14.0	14.7	9.9	6.0	15.1	14.9	16.1	16.7	16.9	18.2
MIN	8.7	8.6	7.4	7.8	4.6	0.8	1.5	1.8	-2.8	-2.4	-1.4	2.5	3.3	6.0	10.3
MEAN	11.5	11.7	10.1	9.4	9.2	6.9	8.0	7.0	1.0	4.9	6.8	8.5	9.6	11.5	13.4

DAY	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
MAX	17.1	18.4	15.6	6.5	-2.3	4.1	9.3	12.8	6.8	14.6	5.8	2.0	1.4	6.0	5.1
MIN	0.5	2.4	6.4	-2.6	-6.6	-7.5	-3.2	3.5	1.5	1.7	-1.7	-5.7	-2.8	-4.5	1.6
MEAN	8.5	9.5	11.0	0.5	-4.5	-2.1	3.4	7.5	3.5	6.6	3.2	-1.2	-1.0	0.9	3.6

MEAN MAXIMUM = 11.1 MEAN MINIMUM = 1.3

35 FT AMBIENT TEMPERATURE (DEG C)
COOPER NUCLEAR STATION METEOROLOGICAL DATA
BROWNVILLE, NEBRASKA

DEC-1981

DAY	HOUR 0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	0.1	-0.2	0.0	-0.1	-0.4	-0.3	-0.3	-0.4	-0.2	-0.4	-0.1	0.1	0.6	0.9	0.9	1.1	-0.3	0.3	0.5	-0.3	-0.9	-1.6	-1.9	-2.4
2	-3.1	-3.4	-3.2	-3.4	-2.6	-2.1	-1.9	-1.5	-0.8	0.2	0.7	2.5	3.1	3.2	3.4	3.1	3.2	3.0	2.5	2.1	1.2	0.6	-0.2	0.2
3	0.4	0.5	0.3	1.0	1.3	1.5	1.3	1.6	3.7	4.0	5.2	6.7	6.5	7.0	7.0	6.4	5.8	5.3	4.9	4.6	4.5	4.2	4.2	3.5
4	2.7	1.9	2.1	2.3	2.6	2.3	1.9	1.8	1.8	0.6	1.8	3.1	4.1	5.1	5.7	6.0	6.0	5.0	2.9	2.6	1.4	0.2	0.2	-0.2
5	-0.1	0.0	0.1	-0.7	-1.4	-0.9	-1.7	-1.3	-0.7	-0.6	0.2	0.9	1.8	3.3	4.7	5.4	4.8	4.7	4.1	4.8	4.7	4.2	4.3	3.6
6	2.7	2.4	2.1	1.9	1.5	1.1	1.2	1.1	1.5	2.1	3.4	6.0	7.9	9.3	11.1	11.9	11.6	9.1	8.0	7.3	8.7	8.6	7.7	6.7
7	5.8	3.8	5.7	7.7	7.4	5.3	4.2	5.4	5.9	7.4	9.7	10.6	11.1	12.6	13.7	13.1	12.2	10.4	8.4	7.1	5.5	4.0	3.1	2.2
8	1.1	0.4	-0.6	-1.2	-1.2	-1.4	-1.4	-1.5	-1.4	-0.9	-0.4	0.5	-M-	-M-	2.9	3.6	3.8	2.9	2.2	1.5	0.6	-0.3	-0.5	-1.0
9	-0.7	-0.3	-0.9	-1.0	-0.3	-1.0	-1.4	-2.2	-2.9	-3.1	-3.1	-3.2	-3.0	-2.7	-2.6	-2.5	-2.4	-2.7	-2.9	-3.6	-3.7	-3.9	-3.5	-3.7
10	-3.5	-3.4	-3.5	-3.6	-3.8	-4.0	-4.4	-4.7	-4.9	-4.6	-4.1	-3.6	-2.8	-2.2	-1.8	-1.5	-1.1	-0.8	-0.4	-0.0	-0.0	-0.2	-0.2	-0.1
11	-0.3	-0.1	0.1	-0.0	-0.3	-0.2	-0.3	-0.1	0.0	0.1	0.8	1.2	1.3	1.7	1.8	1.9	1.9	1.8	1.4	1.2	1.2	1.2	1.2	1.2
12	0.9	0.8	0.8	0.7	0.2	0.2	0.1	0.3	0.3	0.4	1.0	1.1	1.0	1.1	1.2	1.6	1.9	1.7	1.4	1.2	1.1	0.8	1.0	1.0
13	1.1	1.2	1.2	1.2	1.2	1.2	1.1	1.3	1.4	1.7	2.2	2.4	2.5	2.9	3.2	3.1	3.1	3.1	2.6	2.1	1.4	1.2	1.2	1.3
14	1.3	1.6	1.1	1.3	-0.4	-1.1	-2.0	-2.9	-3.6	-4.1	-3.4	-2.4	-1.7	-0.9	-0.2	-0.0	-0.4	-0.8	-1.5	-1.6	-2.0	-2.1	-2.4	-2.9
15	-3.7	-3.8	-4.2	-4.2	-4.1	-3.6	-3.3	-3.3	-3.1	-3.0	-2.6	-2.4	-2.4	-2.1	-1.4	-2.3	-3.5	-4.0	-4.0	-5.1	-5.2	-5.5	-5.3	-5.4
16	-5.7	-5.8	-5.7	-5.7	-5.6	-5.6	-5.8	-6.4	-6.4	-6.4	-6.6	-7.1	-7.5	-7.8	-7.7	-8.1	-8.8	-9.7	-10.3	-10.7	-10.8	-11.1	-11.8	-12.9
17	-13.8	-14.5	-15.4	-15.6	-16.0	-16.6	-17.3	-18.0	-18.3	-18.1	-17.5	-16.8	-16.1	-15.9	-15.6	-15.1	-15.4	-16.3	-17.3	-17.8	-18.3	-19.2	-20.2	-20.6
18	-21.3	-23.4	-25.0	-23.8	-23.4	-25.0	-26.6	-26.9	-26.6	-24.9	-25.2	-22.2	-20.6	-19.7	-18.4	-17.8	-17.7	-17.9	-19.3	-20.2	-22.2	-24.9	-25.8	-27.5
19	-26.6	-28.4	-28.0	-28.3	-27.9	-28.4	-28.6	-28.1	-28.1	-26.6	-24.5	-21.1	-18.9	-16.5	-15.1	-15.5	-15.7	-16.2	-16.9	-16.6	-16.6	-16.2	-16.0	-16.2
20	-15.9	-16.1	-15.8	-14.9	-13.7	-13.5	-11.5	-9.8	-9.3	-7.1	-5.7	-4.5	-2.8	-1.8	-1.1	-0.6	-0.3	0.0	0.3	0.5	0.8	0.8	1.3	1.8
21	1.5	1.4	1.1	1.0	0.8	0.6	0.7	0.6	0.6	0.6	0.8	1.0	1.2	1.5	1.8	1.7	1.5	1.1	0.9	0.7	0.7	0.7	0.3	0.6
22	1.0	1.1	1.6	1.6	1.6	1.5	1.4	1.1	0.9	0.9	1.3	1.3	0.9	1.2	1.4	1.4	1.0	0.4	-0.8	-1.3	-1.9	-2.4	-2.8	-4.1
23	-4.9	-5.5	-5.4	-5.5	-6.8	-7.0	-7.1	-7.0	-7.6	-7.0	-5.2	-3.7	-1.8	-0.1	1.1	1.7	1.7	0.8	-0.6	-1.6	-1.4	-2.3	-2.3	-2.6
24	-3.1	-3.3	-3.6	-4.1	-5.2	-7.3	-9.4	-10.4	-9.6	-7.3	-4.3	-2.4	-0.2	1.7	2.9	3.0	2.3	1.6	0.4	-0.1	-0.7	-2.1	-1.8	-2.2
25	-2.9	-3.2	-4.3	-5.4	-4.9	-5.2	-7.3	-6.8	-7.0	-6.3	-4.2	-2.5	-0.8	1.0	2.2	2.3	2.0	1.5	0.8	0.9	-M-	0.3	0.1	-0.2
26	-0.4	-0.7	-1.5	-2.9	-3.7	-4.3	-5.5	-7.9	-6.8	-6.1	-4.5	-3.6	-2.2	-1.6	-1.6	-0.6	-0.6	-1.4	-1.9	-2.3	-2.8	-3.6	-4.3	-3.6
27	-4.0	-6.2	-6.4	-7.0	-9.0	-8.9	-9.6	-9.8	-9.1	-8.4	-6.5	-5.4	-3.7	-2.6	-2.1	-1.4	-1.7	-1.9	-2.3	-2.2	-2.0	-2.4	-2.4	-3.2
28	-5.1	-6.3	-7.6	-8.2	-8.6	-9.6	-9.6	-9.3	-9.1	-9.4	-9.0	-8.4	-8.3	-7.7	-8.0	-7.9	-8.5	-9.8	-11.3	-14.5	-15.5	-14.7	-16.1	-17.7
29	-18.7	-17.5	-17.3	-16.8	-16.3	-15.6	-14.9	-14.5	-14.0	-12.7	-11.0	-9.1	-7.0	-4.9	-3.0	-2.0	-1.7	-2.6	-2.9	-3.5	-4.2	-5.9	-8.9	-10.5
30	-11.0	-11.6	-12.0	-12.6	-12.6	-12.0	-10.8	-8.7	-7.0	-2.0	-0.2	0.9	2.2	3.2	4.3	4.7	5.1	5.0	4.6	4.4	3.6	3.3	3.3	2.8
31	3.0	2.3	1.2	-1.0	-2.7	-3.6	-5.4	-6.7	-7.9	-8.5	-9.1	-9.6	-8.7	-8.9	-8.7	-8.8	-8.9	-9.6	-10.3	-10.9	-11.5	-11.8	-12.0	-12.4
HOURLY MEAN	-4.0	-4.4	-4.6	-4.7	-5.0	-5.3	-5.6	-5.6	-5.4	-4.8	-3.9	-2.9	-2.1	-1.3	-0.6	-0.4	-0.6	-1.2	-1.8	-2.3	-2.8	-3.2	-3.6	-4.0

MAXIMUM = 13.7 MINIMUM =-28.6 MEAN = -3.4 741 VALID OBSERVATIONS (99.6%)

DAILY STATISTICS

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
MAX	1.1	3.4	7.0	6.0	5.4	11.9	13.7	3.8	-0.3	-0.0	1.9	1.9	3.2	1.6	-1.4	-5.6
MIN	-2.4	-3.4	0.3	-0.2	-1.7	1.1	2.2	-1.5	-3.9	-4.9	-0.3	0.1	1.1	-4.1	-5.5	-12.9
MEAN	-0.2	0.3	3.8	2.7	1.8	5.6	7.6	0.4	-2.4	-2.5	0.8	0.9	1.9	-1.3	-3.6	-7.9

DAY	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
MAX	-13.8	-17.7	-15.1	1.8	1.8	1.6	1.7	3.0	2.3	-0.4	-1.4	-5.1	-1.7	5.1	3.0
MIN	-20.6	-27.5	-28.6	-16.1	0.3	-4.1	-7.6	-10.4	-7.3	-7.9	-9.8	-17.7	-18.7	-12.6	-12.4
MEAN	-16.9	-22.8	-21.7	-5.8	1.0	0.4	-3.3	-2.7	-2.2	-3.1	-4.9	-10.0	-9.8	-2.2	-7.1

MEAN MAXIMUM = 0.6 MEAN MINIMUM = -7.6

318 FT TO 35 FT DIFFERENTIAL TEMP (C/100 M)
COOPER NUCLEAR STATION
BROWNVILLE, NEBRASKA

JUL-1981

DAY	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
	HOUR																							
1	0.0	-0.5	-0.7	-0.5	-0.4	-0.4	-1.0	-1.5	-1.7	-1.7	-1.7	-2.0	-1.9	-2.1	-2.5	-2.3	-2.2	-1.8	-1.7	-1.2	-0.9	-0.9	-0.7	-0.5
2	-0.3	-0.4	-0.2	-0.2	-0.3	-0.5	-1.2	-1.5	-1.3	-1.4	-1.9	-2.5	-2.2	-2.3	-2.1	-2.1	-1.7	-1.2	-1.1	-0.9	-0.4	-0.2	-0.4	-0.5
3	-0.6	-0.7	-1.0	-0.9	-0.8	-0.7	-0.7	-1.1	-1.3	-1.5	-1.4	-1.5	-1.4	-1.7	-1.5	-1.8	-1.9	-1.5	-0.8	-1.3	-0.8	-0.6	-0.4	-0.8
4	-1.0	-1.4	-1.7	-1.6	-1.5	-1.5	-1.6	-2.0	-2.0	-1.9	-2.5	-2.8	-3.1	-3.2	-2.6	-2.8	-3.1	-2.3	-2.3	-1.3	-0.7	-0.7	-0.5	-0.3
5	0.1	-0.5	-0.6	-0.5	-0.7	0.4	0.0	-2.3	-2.7	-3.2	-3.4	-3.8	-3.7	-3.1	-3.2	-3.4	-2.9	-2.3	-2.0	-1.4	-0.2	0.6	0.9	0.9
6	1.8	2.7	3.4	4.1	5.2	4.8	4.5	1.2	-1.6	-2.1	-2.6	-2.6	-2.9	-1.6	-1.8	-2.3	-1.5	-1.4	-1.2	-0.7	0.5	0.8	0.7	0.6
7	1.3	1.5	0.9	1.0	0.9	0.8	0.4	-0.9	-2.2	-2.6	-3.3	-3.1	-3.2	-3.1	-2.1	-2.1	-2.1	-1.9	-1.3	-1.2	-0.8	-0.3	-0.6	-0.7
8	-0.7	-0.6	-0.5	-0.1	-0.3	-0.5	-0.9	-1.3	-1.5	-1.7	-1.9	-1.9	-2.1	-2.0	-2.0	-1.7	-1.8	-1.4	-1.2	-1.7	0.0	-0.2	0.5	0.5
9	0.7	0.0	-0.3	-0.4	-0.9	-1.4	-0.9	-0.9	-1.3	-1.5	-1.7	-1.7	-1.8	-1.9	-1.9	-1.9	-1.9	-1.7	-1.5	-0.9	-0.3	-0.1	-0.1	-0.0
10	-0.1	0.0	0.0	0.4	0.3	0.8	0.6	-0.6	-0.9	-1.4	-1.5	-1.6	-1.6	-1.9	-1.8	-1.7	-1.5	-0.9	-0.9	-0.2	1.3	1.6	0.9	0.5
11	0.1	0.3	-0.0	-0.0	-0.2	-0.0	-0.1	-1.0	-1.1	-1.5	-1.7	-1.8	-1.9	-1.8	-1.7	-1.4	-1.3	-0.8	-0.5	-0.2	0.4	0.2	0.0	-0.1
12	-0.1	-0.3	-0.1	0.1	-0.1	-0.2	-0.6	-0.8	-1.2	-1.4	-1.6	-1.7	-1.9	-2.0	-1.9	-1.7	-1.5	-1.2	-0.8	-0.2	0.5	0.8	0.8	0.9
13	0.4	0.2	0.2	0.8	0.6	0.7	0.2	-0.9	-1.5	-1.6	-1.8	-2.0	-2.0	-2.2	-2.0	-2.1	-2.0	-1.6	-1.1	-0.4	0.4	1.2	1.2	1.1
14	0.8	1.8	1.5	1.1	1.3	0.1	-0.4	-1.1	-1.4	-1.7	-1.9	-2.0	-2.2	-2.1	-2.1	-1.5	-1.4	-1.1	-0.6	0.2	-0.0	0.1	-0.7	-0.4
15	-1.0	-0.6	0.1	-0.3	-0.4	-0.6	-1.1	-1.1	-0.9	-1.6	-1.7	-1.7	-1.8	-1.8	-1.9	-2.0	-1.9	-1.7	-1.4	-0.9	-0.5	-0.4	-1.2	-0.9
16	-0.7	-0.8	-0.7	-1.0	-0.7	-0.5	-1.2	-1.3	-1.5	-1.9	-2.5	-2.0	-1.8	-1.9	-1.9	-1.7	-1.6	-2.0	-1.5	-0.7	-0.2	-0.1	-0.3	-0.3
17	-0.2	-0.5	0.2	-0.4	-0.2	-0.4	-0.6	-0.2	0.0	-0.6	-1.8	-1.6	-1.5	-1.4	-1.6	-1.7	-1.7	-0.6	-0.2	-1.0	-0.5	-0.3	-0.3	-0.5
18	0.1	0.4	-0.5	-0.5	-0.5	-0.4	-0.5	-0.8	-1.0	-1.1	-1.3	-1.4	-1.3	-1.2	-1.4	-1.6	-1.7	-1.7	-1.4	-1.1	-0.5	-0.6	-0.5	-0.4
19	-0.4	-0.4	-0.6	-0.7	-0.9	-0.8	-0.9	-0.9	-1.1	-0.9	-1.5	-1.4	-1.1	0.2	-1.9	-2.1	-2.1	-1.9	-1.6	-0.2	1.2	2.1	2.0	4.0
20	3.7	3.4	2.0	-0.9	-0.3	0.8	0.6	-1.3	-1.9	-1.8	-2.0	-2.6	-2.5	-2.6	-2.2	-2.4	-2.1	-1.7	-1.2	0.7	2.7	4.9	5.7	2.4
21	3.4	4.2	3.9	6.0	4.4	3.3	3.0	0.0	-1.3	-1.5	-1.6	-1.6	-1.0	-1.7	-1.4	-1.2	-1.8	-1.7	-1.6	-0.9	-0.1	0.8	2.1	1.5
22	1.2	1.3	1.3	1.7	2.4	1.9	0.9	-0.4	-1.3	-1.5	-1.5	-1.6	-1.5	-1.3	-1.5	-1.6	-1.6	-1.3	-0.8	-0.3	0.2	0.0	-0.2	-0.5
23	-0.8	-0.8	-1.2	-1.1	-0.9	-0.8	-0.5	-0.4	0.3	0.6	0.1	-1.9	-1.6	-1.8	-1.8	-1.8	-1.9	-1.6	-1.5	-0.8	-0.1	0.2	0.3	0.1
24	-0.2	-0.3	-0.4	-0.5	-0.5	-0.4	-0.8	-1.3	-1.9	-1.9	-1.2	-0.7	-1.3	-1.4	-0.9	-1.0	-1.3	-0.8	-0.2	-0.4	1.2	1.5	0.7	2.6
25	0.9	0.3	-0.7	-0.8	-0.9	-0.8	-1.0	-1.0	-1.3	-1.2	-1.0	-1.1	-0.7	-1.4	-1.0	0.9	-1.0	-1.4	-1.3	-1.1	-0.6	-0.1	-0.5	-0.7
26	-0.6	-1.0	-1.0	-1.0	-1.1	-0.8	-0.8	-0.8	-0.8	-0.9	-1.0	-1.4	-1.2	-1.1	-1.1	-1.7	-1.3	-1.1	-1.3	-1.3	-1.3	-1.3	-1.2	-1.2
27	-1.2	-1.1	-1.1	-1.0	-1.1	-1.1	-0.9	-1.0	-1.3	-1.3	-1.1	-1.3	-1.6	-1.8	-1.8	-1.7	-1.7	-1.9	-1.8	-1.6	-1.5	-1.5	-1.6	-1.9
28	-1.8	-1.8	-1.7	-1.6	-1.6	-1.8	-1.9	-1.9	-2.0	-2.3	-1.8	-1.9	-2.0	-1.8	-1.8	-1.7	-1.5	-1.5	-1.4	-1.2	-0.6	0.4	0.5	0.5
29	0.9	-0.3	-0.5	-0.7	-0.6	-0.9	-1.0	-1.3	-1.3	-1.2	-1.4	-1.5	-1.5	-1.8	-1.8	-1.4	-1.3	-1.4	-1.1	-0.9	-0.6	-0.8	-0.7	-0.7
30	-0.3	-0.4	-0.6	-0.5	-0.5	-0.5	-1.0	-1.1	-1.3	-1.4	-1.8	-1.6	-1.7	-1.9	-1.7	-1.5	-1.3	-1.3	-1.1	-0.8	-0.5	-0.2	-0.2	-0.4
31	-0.6	-0.8	-0.8	-0.7	-0.8	-0.8	-0.8	-1.2	-1.2	-1.1	-1.2	-1.4	-1.5	-1.7	-1.8	-1.7	-1.3	-1.1	-1.0	-0.6	-0.5	-0.5	-0.3	-0.2
HOURLY MEAN	0.2	0.1	-0.0	-0.0	-0.0	-0.1	-0.3	-1.0	-1.3	-1.5	-1.7	-1.8	-1.9	-1.9	-1.8	-1.8	-1.7	-1.5	-1.2	-0.8	-0.1	0.2	0.2	0.2

MAXIMUM = 6.0 MINIMUM = -3.8 MEAN = -0.8 744 VALID OBSERVATIONS (100.0%)

DAILY STATISTICS

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
MAX	0.0	-0.2	-0.4	-0.3	0.9	5.2	1.5	0.5	0.7	1.6	0.4	0.9	1.2	1.8	0.1	-0.1
MIN	-2.5	-2.5	-1.9	-3.2	-3.8	-2.9	-3.3	-2.1	-1.9	-1.9	-1.9	-2.0	-2.2	-2.2	-2.0	-2.5
MEAN	-1.3	-1.1	-1.1	-1.8	-1.5	0.3	-1.0	-1.0	-1.0	-0.4	-0.7	-0.7	-0.6	-0.6	-1.1	-1.2

DAY	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
MAX	0.2	0.4	4.0	5.7	6.0	2.4	0.6	2.6	0.9	-0.6	-0.9	0.5	0.9	-0.2	-0.2
MIN	-1.8	-1.7	-2.1	-2.6	-1.8	-1.6	-1.9	-1.9	-1.4	-1.7	-1.9	-2.3	-1.8	-1.9	-1.8
MEAN	-0.7	-0.9	-0.5	0.1	0.6	-0.2	-0.8	-0.5	-0.7	-1.1	-1.4	-1.4	-1.0	-1.0	-1.0

MEAN MAXIMUM = 1.2 MEAN MINIMUM = -2.2

318 FT TO 35 FT DIFFERENTIAL TEMP (C/100 M)
COOPER NUCLEAR STATION
BROWNVILLE, NEBRASKA

AUG-1981

DAY	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
	HOUR																							
1	-0.2	-0.2	-0.2	-0.4	-0.4	-0.5	-0.8	-1.2	-1.3	-1.6	-1.7	-1.8	-1.8	-1.9	-1.8	-1.6	-1.3	-M-	-M-	-M-	-M-	-M-	-M-	-0.7
2	-1.1	-1.1	-1.1	-1.2	-0.8	-0.7	-0.6	-0.9	-0.7	-0.8	-1.3	-1.9	-1.9	-1.7	-1.9	-2.0	-1.9	-1.5	-1.5	-0.8	1.0	2.1	1.7	2.7
3	0.8	-0.0	1.3	1.0	1.4	-0.0	-0.6	-0.8	-0.6	-0.3	-0.7	-1.2	-1.2	-0.2	-1.3	-1.7	-1.7	-1.4	-1.0	-0.2	1.1	1.6	1.8	1.8
4	1.2	1.6	0.7	0.4	0.3	0.7	0.4	-0.3	-1.3	-1.4	-1.3	-1.5	-1.7	-1.6	-1.6	-1.6	-1.4	-1.2	-0.9	0.3	0.5	0.7	0.7	0.3
5	0.3	0.4	0.0	-0.8	-0.8	-0.8	-0.7	-0.8	-0.8	-0.4	-1.9	-1.7	-1.9	-1.6	-1.7	-1.9	-1.7	-1.7	-0.8	0.1	0.1	0.8	1.3	1.4
6	1.0	0.9	0.6	0.6	0.3	-0.4	-0.5	-0.4	-0.9	-0.9	-1.2	-1.2	-1.3	-1.7	-1.9	-2.0	-1.7	-1.6	-0.7	-0.6	0.9	1.9	2.8	2.9
7	0.9	-0.4	-0.3	0.1	-0.2	-0.2	-0.5	-1.2	-1.7	-2.1	-2.0	-2.6	-2.7	-2.4	-2.7	-2.5	-2.3	-2.0	-1.4	-0.2	1.3	1.5	0.5	-0.1
8	0.3	0.1	-0.3	0.2	0.2	0.4	0.0	0.1	-1.3	-1.2	-1.4	-1.7	-2.0	-2.2	-2.5	-1.9	-1.8	-1.3	0.2	1.7	1.9	3.1	1.4	1.7
9	0.9	1.1	2.6	2.2	3.3	2.7	0.8	0.1	-1.7	-1.8	-1.7	-1.8	-2.4	-2.0	-2.0	-2.1	-2.0	-0.8	-0.1	0.5	-0.2	-1.0	-1.2	-1.2
10	-0.9	-0.3	-0.9	-0.1	0.6	1.9	1.7	-1.1	-1.7	-1.4	-1.8	-2.0	-2.4	-2.9	-2.7	-2.5	-2.2	-1.7	-1.3	-0.7	1.8	4.0	4.3	5.2
11	6.8	6.9	6.9	6.8	6.5	5.2	3.9	3.1	-0.2	-1.4	-1.6	-1.8	-1.8	-2.1	-1.9	-1.8	-M-	-1.5	-0.7	1.3	2.5	4.1	3.8	2.7
12	1.8	2.7	2.6	2.6	1.7	1.5	2.3	1.9	-0.4	-1.3	-1.6	-1.7	-1.7	-1.9	-1.9	-1.8	-1.5	-1.0	0.0	1.0	1.5	1.2	1.2	1.5
13	1.4	1.2	0.6	0.9	0.3	0.3	0.5	0.3	-0.2	0.2	-0.5	-0.8	-1.0	-1.2	-1.2	-1.2	-1.1	-1.0	-1.2	-0.9	-0.9	-0.8	-0.8	-0.7
14	-0.6	-0.6	-0.4	-0.3	-0.1	-0.2	-0.5	-0.9	-1.1	-1.4	-1.4	-1.7	-1.8	-1.7	-1.8	-1.8	-1.3	-0.6	-0.9	0.6	2.3	3.0	3.9	3.3
15	1.5	2.1	-0.4	-1.3	-1.5	-1.5	-1.5	-1.8	-1.9	-2.0	-2.0	-2.4	-2.2	-2.3	-2.3	-2.2	-2.0	-1.6	-1.1	0.1	1.2	2.4	0.4	-1.0
16	-1.1	-0.8	-0.8	-1.0	-0.8	-0.9	-1.2	-1.6	-1.8	-1.8	-1.9	-2.1	-1.9	-2.2	-2.1	-2.0	-1.7	-1.5	-1.2	-0.5	-0.4	-0.8	-0.9	-1.0
17	-1.0	-0.9	-1.0	-1.0	-0.9	-0.9	-1.1	-1.4	-1.6	-1.8	-1.7	-2.1	-1.9	-2.1	-2.1	-1.9	-2.0	-1.5	-1.2	-0.6	0.2	0.9	0.8	0.7
18	0.5	0.7	0.0	0.4	0.2	0.2	0.6	-0.9	-1.6	-1.8	-1.8	-2.3	-2.2	-2.5	-2.5	-2.4	-2.3	-1.9	-1.8	-0.7	0.6	1.6	1.3	1.7
19	2.0	2.2	1.3	1.1	3.8	3.3	2.9	0.8	-1.0	-1.5	-1.7	-2.0	-2.3	-2.2	-2.4	-2.4	-2.1	-2.1	-1.7	0.2	2.5	3.3	5.3	4.5
20	3.6	5.6	6.4	4.8	6.7	6.5	6.5	4.6	1.1	-0.4	-1.9	-2.4	-2.4	-2.0	-2.4	-2.4	-2.1	-1.8	-1.0	0.3	2.2	3.4	3.4	4.1
21	4.0	4.3	4.2	4.0	3.7	3.4	-M-	-M-	-M-	-M-	-1.9	-2.1	-2.1	-2.1	-2.3	-2.1	-1.9	-1.5	-0.7	0.5	1.5	2.2	1.8	2.3
22	2.4	2.9	1.4	1.7	2.0	1.7	1.9	0.8	-0.9	-1.6	-1.9	-2.0	-2.1	-2.2	-2.2	-1.9	-1.5	-0.8	-0.1	0.6	1.3	1.3	0.7	0.7
23	0.6	0.4	0.8	0.4	0.6	0.7	0.1	-0.3	-1.1	-1.5	-1.5	-1.7	-1.4	-1.2	-1.2	-1.4	-1.1	-0.7	-0.7	-0.6	-0.6	-0.2	-0.3	0.8
24	0.9	1.2	0.3	-0.2	-0.4	-0.4	-0.5	-0.4	0.2	0.6	0.7	0.4	1.4	0.4	-2.6	-1.9	-1.8	-1.5	-1.0	0.4	1.2	1.7	1.3	1.1
25	1.3	1.1	-0.4	-0.6	-1.3	-1.2	1.4	1.1	0.2	-0.2	-0.8	-1.1	-1.3	-1.7	-2.0	-1.9	-1.5	-1.6	-1.2	-0.3	-0.4	0.4	0.6	0.3
26	0.6	1.1	1.3	0.2	-1.2	-0.3	-0.0	-0.8	-1.0	-1.2	-1.5	-1.5	-1.7	-1.9	-2.1	-2.3	-2.6	-2.4	-1.1	-0.2	-0.5	0.1	0.1	-0.7
27	-0.5	-0.8	-1.0	-1.1	-1.2	-1.0	-1.3	-1.2	-1.6	-2.0	-1.9	-2.6	-2.4	-2.2	-2.7	-2.3	-2.5	-2.0	-1.8	-1.0	-1.3	-1.3	-1.1	0.1
28	-0.1	-0.0	0.1	-0.3	-0.3	-0.5	-0.6	-1.0	-1.4	-1.4	-2.1	-2.6	-2.3	-2.0	-2.3	-2.7	-2.8	-2.7	-1.6	-0.4	0.1	-0.0	1.4	2.8
29	2.4	3.5	1.7	1.8	2.0	1.8	1.7	1.2	-0.4	-1.0	-1.1	-1.9	-1.9	-1.8	-1.8	-1.6	-1.5	-1.2	-0.5	0.8	0.7	1.2	1.2	1.9
30	1.4	0.5	0.6	0.4	0.5	0.8	0.2	0.8	-0.0	-1.4	-1.8	-1.8	-1.8	-1.9	-1.5	-1.0	-0.8	-0.6	0.4	1.1	0.8	0.3	0.3	0.8
31	0.8	0.7	0.2	-0.1	-0.4	-0.3	0.0	-0.4	-1.1	-1.4	-1.4	-1.2	-2.0	-1.9	-2.1	-1.7	-2.0	-1.9	-1.7	-1.7	-1.6	-0.9	-0.2	-0.3
HOURLY MEAN	1.0	1.2	0.9	0.7	0.8	0.7	0.5	-0.1	-0.9	-1.2	-1.5	-1.8	-1.8	-1.8	-2.0	-2.0	-1.8	-1.5	-1.0	-0.0	0.7	1.3	1.3	1.3

MAXIMUM = 6.9 MINIMUM = -2.9 MEAN = -0.3 733 VALID OBSERVATIONS (98.5%)

DAILY STATISTICS

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
MAX	-0.2	2.7	1.8	1.6	1.4	2.9	1.5	3.1	3.3	5.2	6.9	2.7	1.4	3.9	2.4	-0.4
MIN	-1.9	-2.0	-1.7	-1.7	-1.9	-2.0	-2.7	-2.5	-2.4	-2.9	-2.1	-1.9	-1.2	-1.8	-2.4	-2.2
MEAN	-1.1	-0.7	-0.1	-0.3	-0.6	-0.2	-1.0	-0.3	-0.3	-0.3	2.0	0.4	-0.3	-0.2	-1.0	-1.3

DAY	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
MAX	0.9	1.7	5.3	6.7	4.3	2.9	0.8	1.7	1.4	1.3	0.1	2.8	3.5	1.4	0.8
MIN	-2.1	-2.5	-2.4	-2.4	-2.3	-2.2	-1.7	-2.6	-2.0	-2.6	-2.7	-2.8	-1.9	-1.9	-2.1
MEAN	-1.1	-0.7	0.5	1.7	0.8	0.1	-0.5	0.0	-0.5	-0.8	-1.5	-0.9	0.3	-0.2	-1.0

MEAN MAXIMUM = 2.4 MEAN MINIMUM = -2.2

318 FT TO 35 FT DIFFERENTIAL TEMP (C/100 M)
COOPER NUCLEAR STATION
BROWNVILLE, NEBRASKA

SEP-1981

DAY	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
	HOUR																							
1	-0.5	-0.5	-1.1	-1.3	-1.3	-1.4	-1.5	-1.9	-2.5	-2.9	-2.9	-3.4	-3.7	-3.8	-3.5	-2.5	-2.4	-2.0	-1.5	-0.5	1.0	1.3	2.4	1.2
2	-0.2	0.9	1.7	3.4	3.5	2.3	2.2	1.1	-1.1	-1.0	-1.8	-2.0	-2.1	-2.2	-2.2	-2.0	-1.8	-1.6	-0.8	0.4	1.5	1.7	1.8	1.7
3	2.0	2.4	1.4	1.5	1.5	1.3	1.6	0.3	-0.9	-1.6	-1.8	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-
4	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-1.8	-2.0	-1.8	-1.7	-1.5	-1.8	-1.6	-0.9	0.2	1.1	1.0	0.8	1.2
5	1.4	1.4	1.5	1.4	0.6	1.0	0.4	-0.4	-1.5	-1.5	-1.6	-1.9	-1.9	-2.0	-1.9	-1.8	-1.7	-1.3	-0.8	0.2	0.7	0.6	0.6	0.5
6	1.0	0.9	0.5	0.8	0.7	0.8	0.7	-0.8	-1.6	-1.8	-1.8	-1.9	-1.8	-1.5	-1.5	-1.5	-1.6	-1.1	-0.7	-0.3	-0.5	-0.6	-0.9	-0.9
7	-0.8	-0.9	-0.9	-0.8	-0.8	-1.0	-1.4	-1.7	-1.9	-1.9	-2.1	-2.5	-2.8	-2.8	-2.8	-2.6	-2.6	-2.1	-1.2	0.4	1.3	2.1	5.0	3.2
8	1.9	2.3	2.8	1.1	0.7	3.7	3.9	3.3	-0.7	-1.7	-2.0	-2.2	-2.7	-2.8	-3.1	-2.9	-2.8	-2.3	-0.7	2.9	3.9	4.6	5.6	6.2
9	6.0	4.4	3.8	3.2	2.4	3.2	2.3	1.7	-0.6	-1.4	-1.7	-1.9	-2.0	-2.0	-2.0	-1.9	-1.7	-1.3	0.4	3.4	5.3	4.8	3.7	3.1
10	2.7	2.4	1.4	1.3	3.0	3.5	3.4	1.6	-1.2	-1.5	-1.8	-2.0	-1.8	-1.8	-1.7	-1.7	-1.4	-0.7	1.2	3.3	3.3	2.3	1.3	0.4
11	0.2	0.3	0.9	1.4	1.6	0.9	0.9	-0.6	-1.3	-1.5	-1.6	-1.6	-1.7	-1.6	-1.8	-2.2	-2.4	-1.9	0.1	2.2	3.1	0.9	0.6	-0.2
12	-0.0	-0.1	-0.1	0.5	5.3	5.3	5.4	3.0	-1.4	-1.3	-2.0	-2.3	-2.2	-2.2	-2.1	-2.0	-1.9	-0.3	1.7	5.1	7.0	8.0	8.7	9.8
13	10.0	9.0	6.1	6.2	5.7	5.6	6.5	4.7	1.8	-0.7	-1.4	-1.6	-1.8	-1.7	-1.7	-1.7	-1.5	-1.2	0.5	3.3	4.0	5.0	1.9	0.9
14	-0.3	-0.6	-0.9	-1.0	-1.1	-1.1	-1.3	-1.4	-1.6	-1.8	-2.1	-2.0	-2.0	-1.9	-1.9	-1.7	-1.4	-1.0	-0.2	0.3	0.2	-0.0	-0.5	-0.5
15	-0.5	-0.5	-0.8	-0.7	-0.7	-1.0	-1.0	-1.3	-1.8	-1.9	-1.9	-2.0	-2.1	-2.2	-2.2	-1.8	-1.4	-1.1	-0.9	-0.7	-0.9	-1.0	-1.3	-1.4
16	-1.2	-0.8	-0.7	-1.0	-0.9	-0.6	-0.8	-1.1	-1.7	-2.2	-2.4	-2.3	-2.1	-2.0	-2.2	-2.1	-1.7	-1.6	-1.4	-0.7	-0.2	0.2	0.1	-0.6
17	-0.8	-0.4	-0.2	-0.0	-0.4	-0.3	-0.3	-0.6	-1.8	-2.0	-2.3	-2.4	-2.4	-2.4	-2.2	-2.1	-1.9	-1.5	-0.3	0.9	3.7	5.6	5.9	7.0
18	8.9	9.6	10.0	10.0	10.2	10.1	8.6	6.6	1.7	-1.1	-1.5	-1.6	-1.8	-1.7	-1.7	-1.6	-1.5	-1.3	0.2	-M-	2.9	3.2	4.3	3.1
19	2.4	1.6	0.8	1.9	3.0	2.5	3.0	1.4	-1.2	-1.4	-1.5	-1.4	-1.6	-1.8	-1.7	-1.8	-1.4	-1.1	0.6	2.7	4.1	4.3	4.0	2.7
20	2.1	3.0	1.5	1.4	2.0	1.9	2.1	1.5	-0.8	-1.4	-1.4	-1.4	-1.4	-1.8	-1.8	-1.8	-1.5	-0.9	0.7	2.0	1.5	2.1	0.9	0.1
21	0.4	2.6	0.9	0.9	0.2	-0.0	-0.3	-0.9	-1.6	-1.9	-2.2	-2.6	-2.4	-2.5	-2.3	-2.3	-1.9	-0.8	0.7	0.7	0.9	0.2	-0.2	-0.3
22	-0.8	-1.1	-1.1	-1.0	-1.0	-0.9	-1.2	-1.3	-1.4	-1.5	-1.7	-1.7	-1.7	-1.6	-1.5	-1.4	-1.4	-1.1	-0.7	-0.3	-0.4	-0.6	-0.8	-0.9
23	-0.9	-1.0	-0.9	-0.8	-0.9	-0.9	-0.9	-1.0	-1.1	-1.4	-1.6	-1.6	-1.9	-1.8	-1.8	-1.7	-1.2	-0.8	-0.5	0.2	0.8	0.2	-0.3	-0.5
24	0.3	0.5	0.5	0.0	0.5	0.9	0.6	-0.0	-0.6	-0.8	-0.8	-1.0	-1.0	-1.1	-1.1	-1.1	-1.1	-1.0	-1.0	-1.0	-1.0	-1.0	-0.8	-0.8
25	-0.4	-0.4	-0.7	-0.8	-0.4	-0.0	-0.4	-0.4	-1.0	-1.1	-1.3	-1.7	-1.7	-1.7	-1.7	-1.6	-1.3	-0.7	-0.6	-0.3	-0.4	0.0	0.4	0.5
26	-0.3	-0.2	-0.2	-0.2	-0.1	-0.3	1.1	2.2	-0.2	-1.5	-2.1	-2.3	-2.1	-2.1	-2.0	-2.2	-2.0	-1.5	0.3	1.9	2.0	1.8	5.5	7.2
27	7.9	8.6	7.9	8.6	7.9	5.5	-M-	-M-	-0.3	-1.4	-2.0	-2.1	-2.1	-2.2	-2.0	-1.9	-2.1	-1.5	0.4	1.6	1.2	4.5	4.2	4.2
28	3.2	2.3	1.3	1.5	1.4	0.8	0.0	-0.2	-1.3	-1.4	-1.5	-1.5	-1.6	-1.6	-1.7	-1.6	-1.3	-0.9	-0.4	0.1	-0.1	-0.4	-0.3	-0.3
29	-0.4	-0.2	0.1	-0.2	-0.3	-0.3	-0.3	-0.5	-1.0	-1.3	-1.5	-1.6	-1.8	-1.7	-1.7	-1.5	-1.3	-0.8	0.3	1.4	0.6	0.3	-0.2	-0.0
30	-0.0	0.1	-0.1	-0.1	-0.2	-0.3	-0.0	0.1	-0.9	-1.3	-1.7	-1.6	-1.8	-1.7	-1.8	-2.1	-1.9	-1.5	-1.3	-1.2	-1.0	-1.1	-0.9	-0.6
HOURLY MEAN	1.5	1.6	1.2	1.3	1.5	1.4	1.2	0.5	-1.0	-1.5	-1.8	-1.9	-2.0	-2.0	-2.0	-1.9	-1.7	-1.3	-0.2	1.0	1.6	1.7	1.8	1.6

MAXIMUM = 10.2 MINIMUM = -3.8 MEAN = 0.0 693 VALID OBSERVATIONS (96.2%)

DAILY STATISTICS

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
MAX	2.4	3.5	2.4	1.2	1.5	1.0	5.0	6.2	6.0	3.5	3.1	9.8	10.0	0.3	-0.5
MIN	-3.8	-2.2	-1.8	-2.0	-2.0	-1.9	-2.8	-3.1	-2.0	-2.0	-2.4	-2.3	-1.8	-2.1	-2.2
MEAN	-1.5	0.1	0.7	-0.7	-0.3	-0.6	-0.9	0.8	1.3	0.6	-0.2	1.7	2.4	-1.1	-1.3

DAY	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
MAX	0.2	7.0	10.2	4.3	3.0	2.6	-0.3	0.8	0.9	0.5	7.2	8.6	3.2	1.4	0.1
MIN	-2.4	-2.4	-1.8	-1.8	-1.8	-2.6	-1.7	-1.9	-1.1	-1.7	-2.3	-2.2	-1.7	-1.8	-2.1
MEAN	-1.3	-0.0	3.3	0.8	0.4	-0.6	-1.1	-0.9	-0.5	-0.7	0.1	2.0	-0.2	-0.6	-1.0

MEAN MAXIMUM = 3.5 MEAN MINIMUM = -2.1

318 FT TO 35 FT DIFFERENTIAL TEMPERATURE (C/100M)
COOPER NUCLEAR STATION METEOROLOGICAL DATA
BROWNVILLE, NEBRASKA

OCT-1981

DAY	HOUR 0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	-0.6	-0.6	-0.3	-0.1	0.5	1.0	1.2	0.6	-1.1	-1.7	-2.2	-2.4	-2.5	-2.7	-2.6	-2.4	-2.1	-1.5	-0.5	0.2	-0.2	-0.6	-0.8	-0.7
2	-0.9	-0.8	-0.6	-0.2	0.4	1.2	2.1	1.0	-1.0	-1.5	-1.6	-1.7	-1.6	-1.6	-1.7	-1.5	-1.4	-1.1	-0.3	0.3	-0.0	-0.2	-0.5	-0.4
3	-0.6	-0.9	-0.7	-0.7	-0.6	-0.8	-0.4	-0.5	-0.3	-0.8	-0.7	-1.0	-1.1	-1.1	-1.1	-1.1	-1.1	-1.0	-0.7	-0.6	-0.6	-0.5	0.1	0.4
4	0.1	0.6	0.7	0.6	0.9	0.6	1.8	1.7	0.2	-1.3	-1.5	-1.4	-2.2	-2.1	-1.6	-1.4	-1.4	-1.3	0.1	2.2	2.6	2.3	0.7	-0.5
5	-0.6	-0.8	-0.5	-0.6	-0.3	-0.2	-0.1	-0.1	0.5	-0.7	-1.6	-1.5	-1.5	-1.6	-1.7	-1.7	-1.5	-1.3	-1.2	-1.1	-0.9	-0.8	-0.8	-0.8
6	-0.7	-0.7	-0.7	-0.7	-0.6	-0.5	-0.6	-0.8	-1.5	-1.9	-2.2	-2.3	-2.6	-2.5	-2.4	-2.2	-1.9	-1.4	-0.2	0.7	0.6	4.3	5.3	6.6
7	5.4	5.2	3.9	3.2	1.2	1.0	0.1	-0.1	-1.1	-1.4	-1.5	-1.6	-1.6	-1.5	-1.4	-1.2	-1.2	-1.0	0.1	0.6	1.1	2.5	2.2	2.5
8	2.8	3.1	2.4	2.2	1.8	1.7	1.9	1.2	-0.1	-1.3	-1.7	-1.8	-1.9	-1.8	-1.8	-1.6	-1.3	-0.9	-0.1	0.7	0.7	0.5	0.5	-0.3
9	-0.6	-0.7	-0.6	-0.6	-0.7	-0.5	-0.5	-0.8	-0.8	-1.1	-1.1	-1.1	-1.2	-1.2	-1.3	-1.4	-1.4	-1.4	-1.3	-1.2	-1.2	-1.1	-0.8	-0.7
10	-0.9	-0.9	-0.9	-0.9	-0.8	-0.9	-0.8	-0.7	-0.4	0.1	0.5	0.6	0.2	0.0	-0.6	-0.8	-1.2	-1.7	-0.4	-0.2	0.0	0.5	0.6	0.7
11	0.8	1.1	1.5	1.4	1.1	0.5	0.7	1.0	-0.2	-1.2	-1.4	-1.3	-1.4	-1.3	-1.1	-1.0	-0.9	-0.7	-0.6	-0.6	-0.7	-0.4	-0.3	-0.3
12	-0.5	-0.8	-0.8	-0.9	-1.1	-1.0	-1.1	-1.1	-1.1	-1.1	-1.1	-1.5	-1.2	-1.2	-1.1	-1.1	-1.1	-1.1	-1.0	-1.0	-1.0	-0.8	-0.8	-0.7
13	-0.7	-0.7	-0.8	-0.9	-0.9	-0.9	-0.8	-0.8	-0.8	-0.9	-1.0	-1.3	-1.3	-1.3	-1.2	-1.1	-1.0	-0.9	-0.8	-0.6	-0.7	-0.8	-0.8	-0.9
14	-0.9	-0.8	-0.8	-1.0	-1.3	-1.2	-1.3	-1.3	-1.4	-1.7	-1.8	-1.8	-2.2	-2.0	-1.7	-1.7	-1.5	-1.4	-1.4	-1.4	-1.4	-1.5	-1.4	-1.3
15	-1.4	-1.3	-1.3	-1.3	-1.3	-1.4	-1.4	-1.3	-1.7	-1.7	-1.6	-1.5	-1.9	-2.0	-1.9	-1.7	-1.3	-1.1	0.5	1.4	2.6	3.9	4.3	1.7
16	3.6	2.3	2.4	1.8	1.0	0.7	0.6	1.4	0.6	-0.8	-1.4	-1.3	-1.3	-1.1	-1.0	-1.3	-1.0	-0.9	-0.9	-0.8	-1.0	-1.1	-1.1	-1.1
17	-1.0	-0.7	-0.6	-0.8	-0.7	-0.7	-0.0	-0.5	-0.9	-1.1	-1.6	-1.6	-1.7	-1.9	-1.8	-1.5	-1.3	-1.2	-0.8	-0.7	-0.5	-M-	-M-	-M-
18	-0.9	-0.9	-0.9	-1.1	-1.0	-1.0	-0.8	-0.5	-1.7	-1.7	-2.0	-2.2	-2.1	-2.0	-1.9	-1.8	-1.5	-1.2	-0.7	-0.1	0.2	2.5	3.1	3.8
19	3.6	3.5	2.7	1.1	0.3	1.9	2.3	2.7	-0.0	-1.2	-1.6	-1.7	-1.5	-1.4	-1.3	-1.1	-0.8	0.1	2.3	2.5	1.8	0.8	0.5	0.5
20	0.5	0.5	1.0	1.1	0.8	1.5	1.7	0.9	-0.8	-1.1	-1.3	-1.2	-1.7	-1.7	-1.5	-1.5	-1.2	-0.8	-0.7	-0.8	-1.0	-0.9	-1.0	-1.1
21	-0.8	-0.7	-0.9	-1.1	-1.1	-1.1	-1.2	-1.2	-1.3	-1.5	-1.7	-1.9	-1.9	-2.1	-2.0	-1.7	-1.4	-1.2	-1.0	-1.0	-0.7	-0.9	-1.2	-1.2
22	-1.2	-1.1	-0.9	-0.9	-1.0	-1.1	-1.2	-1.2	-1.8	-2.0	-2.3	-2.5	-2.5	-2.6	-2.7	-2.3	-2.0	-1.4	-0.1	0.3	-1.4	-1.5	-1.1	-0.6
23	-0.2	-0.1	-0.5	-0.3	-0.1	-0.3	0.3	0.9	-1.0	-1.9	-2.3	-2.5	-2.4	-2.1	-1.8	-1.7	-1.4	-0.9	0.3	1.8	2.0	1.1	0.7	-0.2
24	-0.7	-0.8	-0.6	-0.6	-0.5	-0.7	-0.9	-0.9	-0.9	-0.9	-1.1	-1.2	-1.0	-1.0	-1.1	-1.0	-0.8	-0.6	-0.6	-0.1	-0.1	-0.2	-0.4	0.2
25	0.4	0.2	-0.3	-0.2	0.3	0.5	0.4	0.3	-0.0	-1.0	-1.7	-1.7	-1.9	-1.9	-1.7	-1.7	-1.5	-1.1	0.0	0.2	0.2	0.2	0.2	1.9
26	0.4	0.3	2.7	4.0	5.0	5.6	4.2	4.8	2.9	-0.9	-1.5	-1.7	-1.7	-1.7	-1.6	-1.6	-1.4	-0.8	1.8	2.4	2.3	1.2	0.9	1.0
27	1.5	2.3	2.3	2.4	2.9	2.7	2.6	2.3	-0.0	-1.3	-1.5	-1.5	-1.5	-1.6	-1.7	-1.3	-1.1	-0.2	1.5	2.1	1.8	1.0	0.6	0.3
28	0.3	0.4	0.3	0.2	1.3	2.5	1.8	1.7	-0.1	-0.8	-1.3	-1.2	-1.3	-1.6	-1.4	-1.2	-1.0	-0.7	-0.6	-0.5	-0.4	-0.5	-0.4	-0.4
29	-0.3	-0.3	-0.2	-0.1	-0.2	-0.4	-0.3	-0.1	-0.8	-1.2	-1.6	-1.7	-1.8	-1.7	-1.7	-1.4	-1.2	-0.6	-0.6	-0.5	-0.7	-0.6	-0.6	-0.5
30	-0.4	-0.5	-0.7	-0.7	-0.7	-0.7	-0.7	-0.7	-1.0	-1.0	-1.1	-1.3	-1.1	-1.1	-1.1	-1.1	-1.1	-0.9	-0.7	-0.4	-0.3	-0.3	-0.5	-0.3
31	-0.5	-0.4	-1.1	-1.2	-0.9	-0.9	-1.2	-1.1	-1.2	-1.3	-1.3	-1.2	-1.2	-1.2	-1.1	-1.2	-0.8	-0.5	-0.5	-0.8	-0.9	-1.0	-1.1	-1.2
HOURLY MEAN	0.2	0.2	0.2	0.1	0.1	0.2	0.3	0.2	-0.6	-1.2	-1.5	-1.5	-1.6	-1.6	-1.6	-1.5	-1.3	-1.0	-0.3	0.1	0.1	0.2	0.2	0.2

MAXIMUM = 6.6 MINIMUM = -2.7 MEAN = -0.5 741 VALID OBSERVATIONS (99.6%)

DAILY STATISTICS

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
MAX	1.2	2.1	0.4	2.6	0.5	6.6	5.4	3.1	-0.5	0.7	1.5	-0.5	-0.6	-0.8	4.3	3.6
MIN	-2.7	-1.7	-1.1	-2.2	-1.7	-2.6	-1.6	-1.9	-1.4	-1.7	-1.4	-1.5	-1.3	-2.2	-2.0	-1.4
MEAN	-0.9	-0.6	-0.7	0.0	-0.9	-0.4	0.6	0.2	-1.0	-0.4	-0.2	-1.0	-0.9	-1.4	-0.5	-0.1

DAY	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
MAX	-0.0	3.8	3.6	1.7	-0.7	0.3	2.0	0.2	1.9	5.6	2.9	2.5	-0.1	-0.3	-0.4
MIN	-1.9	-2.2	-1.7	-1.7	-2.1	-2.7	-2.5	-1.2	-1.9	-1.7	-1.7	-1.6	-1.8	-1.3	-1.3
MEAN	-1.0	-0.7	0.7	-0.4	-1.3	-1.5	-0.5	-0.7	-0.4	1.1	0.6	-0.2	-0.8	-0.8	-1.0

MEAN MAXIMUM = 1.7 MEAN MINIMUM = -1.8

318 FT TO 35 FT DIFFERENTIAL TEMPERATURE (C/100M)
COOPER NUCLEAR STATION METEOROLOGICAL DATA
BROWNVILLE, NEBRASKA

NOV-1981

DAY	HOUR 0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	-1.1	-1.2	-1.2	-1.1	-1.1	-1.0	-1.0	-1.0	-0.8	-0.7	-0.7	-0.8	-0.8	-0.8	-0.9	-1.0	-0.9	-0.9	-0.8	-0.8	-1.2	-0.8	-0.8	-1.0
2	-1.0	-0.8	-1.0	-1.0	-1.3	-1.2	-1.2	-0.7	-0.4	-0.8	-1.1	-1.3	-1.6	-1.3	-1.3	-1.3	-1.0	-0.7	-0.5	-0.3	-0.1	-0.1	0.6	1.5
3	1.3	0.6	1.2	1.5	-0.5	-0.7	-0.8	-0.6	-0.6	-0.3	-0.2	-0.2	-0.9	-1.0	-0.8	-1.1	-1.5	-0.6	0.3	0.4	1.1	1.9	1.7	0.7
4	1.7	2.9	1.5	1.0	-0.7	-0.8	-0.9	-1.0	-1.0	-0.8	-0.5	-0.8	-0.6	-0.9	-0.9	-0.9	-1.0	-0.9	-1.2	-1.0	-1.0	-1.1	-1.1	-0.9
5	-0.9	-1.0	-0.8	-0.5	-0.4	-0.3	0.0	0.7	-0.5	-1.6	-2.1	-2.3	-2.3	-2.4	-2.3	-2.1	-1.6	-0.9	-0.4	-0.1	0.2	0.0	-M-	-M-
6	-M-	-M-	0.2	0.3	0.3	-0.3	0.6	0.2	-0.7	-1.4	-1.5	-1.7	-1.7	-1.8	-1.8	-1.6	-1.2	-0.3	2.6	4.2	4.9	3.4	6.3	6.4
7	5.8	5.2	5.1	5.2	6.2	6.0	4.6	3.8	3.6	-0.1	-1.3	-1.3	-1.5	-1.6	-1.3	-1.3	-1.0	-0.3	0.9	1.5	1.4	1.5	1.8	1.8
8	1.6	2.1	1.2	1.7	3.1	1.9	0.4	-1.0	-1.4	-1.7	-1.9	-1.8	-1.8	-1.7	-1.6	-1.6	-1.5	-1.5	-1.4	-1.4	-1.4	-1.5	-1.4	-1.3
9	-1.2	-1.3	-1.2	-1.3	-1.4	-1.3	-1.4	-1.3	-1.9	-2.0	-2.2	-2.1	-2.3	-2.3	-2.2	-1.7	-1.6	-1.1	0.6	1.9	3.7	5.3	7.0	5.0
10	4.9	4.7	4.0	3.0	2.4	2.0	2.2	2.6	0.7	-1.2	-1.6	-1.7	-1.8	-1.8	-1.6	-1.5	-1.3	-0.3	2.0	2.8	6.9	8.6	8.0	10.0
11	9.2	9.3	8.5	6.8	6.0	6.1	6.2	3.9	2.4	-0.9	-1.7	-1.5	-1.5	-1.7	-1.5	-1.5	-1.5	-0.8	1.3	2.9	2.4	2.0	2.2	1.7
12	2.4	3.0	2.7	2.4	2.2	2.5	2.5	2.5	1.7	-0.3	-0.7	-1.3	-1.7	-1.7	-1.7	-1.5	-1.2	-0.3	0.8	2.9	1.8	1.0	1.1	1.5
13	1.0	0.8	1.6	2.9	2.5	2.2	2.2	2.2	1.8	-0.1	-1.3	-1.6	-1.8	-1.9	-1.7	-1.5	-1.2	-0.5	0.1	0.4	0.5	0.9	0.9	1.0
14	0.8	0.6	1.1	1.3	1.0	0.9	0.5	0.8	0.1	-1.0	-1.4	-1.6	-1.5	-1.5	-1.4	-1.1	-0.9	-0.7	-0.5	-0.6	-0.5	-0.5	-0.4	-0.7
15	-0.7	-0.7	-0.7	-0.7	-0.6	-0.5	-0.2	0.6	-0.1	-1.1	-1.4	-1.5	-1.7	-2.1	-2.3	-2.0	-1.5	-0.5	2.2	2.7	-M-	-M-	-M-	-M-
16	-M-	8.0	3.6	7.7	7.7	6.1	5.4	7.6	5.5	2.3	-0.6	-1.6	-1.7	-1.5	-1.6	-1.7	-1.2	0.1	3.2	6.7	7.4	10.8	9.1	9.3
17	10.4	11.4	8.1	9.3	9.0	7.5	5.9	6.4	6.8	1.6	-1.0	-1.4	-1.2	-1.5	-1.4	-1.3	-0.9	0.3	2.4	3.1	1.9	1.1	1.2	1.0
18	0.9	1.3	1.9	1.4	1.9	1.6	1.9	2.0	1.7	0.3	-1.4	-1.6	-1.4	-1.2	-1.2	-1.3	-1.1	-0.6	-1.5	-1.6	-1.5	-1.5	-1.4	-1.4
19	-1.5	-1.6	-1.6	-1.6	-1.5	-1.6	-1.8	-1.8	-1.6	-1.5	-1.6	-1.6	-1.7	-1.5	-1.6	-1.6	-1.6	-1.5	-1.4	-1.5	-1.4	-1.5	-1.5	-1.6
20	-1.6	-1.6	-1.6	-1.7	-1.7	-1.7	-1.7	-1.7	-1.8	-2.0	-2.2	-2.1	-2.1	-2.1	-2.3	-2.4	-2.0	-1.4	-1.1	-0.6	-0.3	-0.2	0.2	-0.5
21	-0.4	-0.8	-0.4	-1.0	-0.7	-1.0	-1.0	-1.1	-1.0	-1.3	-1.5	-1.5	-1.6	-1.7	-1.6	-1.5	-1.2	-0.7	0.5	1.0	0.9	1.1	0.9	1.3
22	1.4	1.4	1.2	0.6	1.0	1.0	1.2	1.3	1.7	-0.2	-1.0	-1.2	-1.4	-1.3	-1.2	-0.9	-0.8	0.2	0.2	0.3	0.7	0.5	-0.3	-0.4
23	0.2	-0.1	0.5	0.6	-1.1	-1.1	-1.1	-1.0	-1.1	-1.4	-1.7	-1.9	-1.9	-2.0	-2.0	-1.9	-1.5	-1.0	-0.8	-1.0	-1.2	-1.2	-1.4	-1.3
24	-1.6	-1.6	-1.5	-1.4	-1.2	-1.2	-1.4	-1.4	-1.4	-1.5	-1.6	-1.7	-1.6	-1.6	-1.5	-1.4	-1.1	-0.6	-0.2	-0.5	-0.5	-0.4	-0.4	-0.5
25	-0.9	-1.0	-1.1	-0.9	-0.6	-0.4	-0.1	-0.0	-0.4	-1.3	-1.4	-1.4	-1.6	-1.5	-1.2	-1.1	-0.7	-0.7	-0.6	-0.7	-0.3	-0.7	-1.0	-1.2
26	-1.4	-1.6	-1.6	-1.8	-1.9	-1.8	-1.8	-1.7	-1.8	-1.9	-1.7	-1.9	-2.2	-2.5	-2.5	-2.4	-1.9	-1.4	-1.1	-1.0	-0.2	1.5	2.8	2.4
27	2.9	2.7	2.7	2.7	0.8	1.5	3.9	2.3	0.8	-1.3	-2.0	-2.5	-2.6	-2.1	-1.5	-1.4	-1.5	-1.4	-1.2	-1.1	-1.2	-1.2	-1.2	-1.2
28	-0.9	-1.2	-1.2	-0.9	-0.7	-0.6	-0.9	-1.1	-1.2	-1.4	-1.6	-1.6	-1.6	-1.5	-1.6	-1.5	-1.4	-1.1	-0.6	-0.4	-0.6	-0.5	-0.4	-0.2
29	0.4	1.2	2.0	1.8	1.2	2.7	1.0	0.8	0.0	-0.7	-1.2	-1.4	-1.6	-1.6	-1.5	-1.6	-1.4	-0.7	-0.2	-0.8	-0.9	-0.7	-0.6	-0.8
30	-0.7	-1.0	-1.2	-1.2	-1.2	-1.3	-1.5	-1.4	-1.3	-1.3	-1.2	-1.1	-1.0	-1.0	-1.0	-1.1	-1.0	-0.8	-0.7	-0.5	-0.4	-1.0	-1.2	-1.1
HOURLY MEAN	1.1	1.4	1.1	1.2	1.0	0.8	0.7	0.7	0.3	-0.9	-1.4	-1.5	-1.6	-1.6	-1.6	-1.5	-1.3	-0.7	0.1	0.6	0.7	0.9	1.1	1.0

MAXIMUM = 11.4 MINIMUM = -2.6 MEAN = 0.0 711 VALID OBSERVATIONS (98.8%)

DAILY STATISTICS

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
MAX	-0.7	1.5	1.9	2.9	0.7	6.4	6.2	3.1	7.0	10.0	9.3	3.0	2.9	1.3	2.7
MIN	-1.2	-1.6	-1.5	-1.2	-2.4	-1.8	-1.6	-1.9	-2.3	-1.8	-1.7	-1.7	-1.9	-1.6	-2.3
MEAN	-0.9	-0.7	0.0	-0.5	-1.0	0.7	1.9	-0.6	-0.3	2.2	2.4	0.9	0.4	-0.3	-0.6

DAY	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
MAX	10.8	11.4	2.0	-1.4	0.2	1.3	1.7	0.6	-0.2	-0.0	2.8	3.9	-0.2	2.7	-0.4
MIN	-1.7	-1.5	-1.6	-1.8	-2.4	-1.7	-1.4	-2.0	-1.7	-1.6	-2.5	-2.6	-1.6	-1.6	-1.5
MEAN	3.9	3.3	-0.2	-1.6	-1.5	-0.6	0.1	-1.1	-1.2	-0.9	-1.2	-0.1	-1.0	-0.2	-1.0

MEAN MAXIMUM = 3.1 MEAN MINIMUM = -1.8

318 FT TO 35 FT DIFFERENTIAL TEMPERATURE (C/100M)
COOPER NUCLEAR STATION METEOROLOGICAL DATA
BROWNVILLE, NEBRASKA

DEC-1981

DAY	HOUR 0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	-0.9	-0.8	-1.0	-0.6	-0.6	-0.6	-0.6	-0.6	-0.8	-1.0	-M-	-M-	-M-	-M-	-M-	-M-	-1.2	-1.5	-1.4	-1.3	-1.1	-0.9	-0.6	-0.5
2	-0.1	0.5	0.5	1.0	0.6	0.1	0.3	0.2	0.3	-0.3	-0.5	-1.2	-1.4	-1.5	-1.5	-1.6	-1.4	-1.0	-0.1	-0.0	0.6	1.3	1.5	0.2
3	1.8	1.1	0.9	0.3	0.1	0.2	0.6	1.3	-0.4	-0.8	-1.4	-2.0	-1.9	-1.9	-1.7	-1.4	-1.3	-1.1	-1.1	-1.1	-1.1	-1.2	-1.2	-1.3
4	-1.2	-1.4	-1.4	-1.4	-1.5	-1.5	-1.5	-1.5	-1.5	-1.3	-2.0	-2.3	-2.4	-2.1	-1.9	-1.6	-1.3	-0.3	2.2	2.6	3.1	3.4	2.9	3.4
5	2.0	1.2	0.1	0.7	1.0	1.1	2.7	2.5	1.1	0.2	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-0.0	0.5	0.8	0.2	0.3	0.2	0.5
6	0.7	0.7	0.9	0.4	0.3	0.6	0.1	0.2	0.0	-0.5	-1.0	-1.3	-1.3	-1.4	-1.1	-0.6	0.2	1.8	2.4	3.2	1.9	1.2	0.7	1.2
7	1.2	4.0	4.2	1.1	0.2	1.4	1.8	0.6	-0.6	-1.2	-1.9	-2.2	-2.0	-2.0	-2.2	-1.8	-1.8	-1.3	-1.0	-1.1	-1.3	-1.7	-1.7	-1.5
8	-1.2	-0.7	-0.1	0.1	-0.3	-0.4	-1.1	-1.1	-1.0	-1.0	-1.0	-1.1	-1.1	-1.3	-1.2	-1.3	-1.5	-0.8	-0.1	1.1	2.3	3.8	4.6	2.0
9	1.9	1.2	1.1	1.1	-0.6	-1.0	-1.4	-1.4	-1.4	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-1.5	-1.2	-1.0	-0.1	0.1	0.1	-0.1	-0.2
10	-0.9	-0.9	-1.1	-1.1	-1.3	-1.3	-1.4	-1.4	-1.4	-M-	-1.4	-1.5	-1.5	-1.5	-1.5	-1.4	-1.3	-1.2	-1.2	-1.2	-1.2	-1.1	-1.1	-1.1
11	-1.0	-1.0	-1.0	-1.1	-1.1	-1.2	-1.1	-1.1	-1.0	-1.2	-1.3	-1.3	-1.3	-1.3	-1.2	-1.4	-1.3	-1.0	-0.7	-0.6	-0.7	-0.7	-0.8	-1.1
12	-1.0	-1.0	-1.1	-1.0	-0.9	-0.8	-1.0	-1.1	-0.9	-0.9	-1.3	-1.2	-1.0	-1.0	-1.0	-0.9	-1.0	-1.2	-1.2	-0.8	-0.8	-0.6	-0.9	-0.8
13	-0.5	-0.5	-0.3	-0.1	-0.4	-0.3	-0.3	-0.3	-0.7	-0.7	-1.0	-1.0	-1.1	-1.2	-1.1	-1.2	-1.0	-0.9	-0.7	-0.8	-0.8	-0.9	-0.8	-0.9
14	-0.9	-1.2	-1.3	-1.6	-1.7	-1.7	-1.8	-1.9	-1.9	-2.1	-2.0	-1.9	-1.9	-1.7	-1.9	-1.6	-1.3	-1.2	-0.8	-0.9	-1.1	-1.3	-1.4	-1.3
15	-1.4	-1.5	-1.2	-1.1	-1.1	-1.0	-1.0	-0.8	-0.9	-1.2	-1.3	-1.3	-1.2	-1.2	-1.7	-1.3	-1.1	-1.1	-1.3	-1.1	-1.1	-1.2	-1.4	-1.2
16	-1.2	-1.2	-1.3	-1.3	-1.2	-1.3	-1.4	-1.3	-1.3	-1.2	-1.2	-1.1	-1.1	-1.2	-1.4	-1.6	-1.6	-1.5	-1.7	-1.7	-1.8	-1.8	-1.7	-1.6
17	-1.4	-1.4	-1.0	-1.2	-1.1	-1.1	-1.1	-1.0	-1.2	-1.5	-1.9	-2.0	-2.2	-1.8	-1.8	-2.1	-1.7	-1.1	-0.7	-0.5	-0.3	0.7	1.5	0.8
18	0.7	3.1	4.9	2.6	1.8	3.2	4.4	4.4	3.7	2.6	3.8	2.3	1.6	1.4	-0.2	-0.3	-0.3	-0.1	1.6	2.6	4.6	7.7	8.5	10.8
19	9.0	10.6	10.4	10.7	9.8	10.3	9.4	9.0	9.0	7.6	5.8	1.6	-0.5	-2.0	-1.6	-1.1	-0.2	0.6	0.5	0.5	1.2	0.9	1.1	1.4
20	1.5	2.4	2.6	1.9	1.1	1.6	1.2	0.4	0.2	-0.6	-0.7	-0.8	-0.9	-0.9	-0.9	-0.8	-0.8	-0.7	-0.7	-0.5	-0.5	-0.4	-0.3	-0.5
21	-0.7	-0.6	-0.6	-0.6	-0.6	-0.7	-0.8	-0.7	-0.7	-0.7	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8	-0.7	-0.5	-0.6	-0.2	-0.4	-0.4	0.1	-0.1
22	-0.1	-0.1	-0.1	-0.6	-0.6	-0.9	-0.9	-0.9	-0.7	-1.0	-1.6	-1.7	-1.8	-1.8	-1.7	-1.6	-1.5	-1.3	-1.0	-1.1	-1.2	-1.0	-1.0	-0.2
23	0.6	1.3	1.0	1.4	3.1	2.3	0.6	0.3	0.7	0.2	-0.8	-1.0	-1.3	-1.2	-1.1	-0.9	-0.6	0.5	2.4	2.7	1.4	1.9	2.0	1.6
24	1.3	1.1	0.7	0.9	0.8	2.7	5.2	6.0	4.8	1.7	-0.4	-0.9	-1.1	-0.9	-0.9	-0.6	-0.1	0.7	1.6	2.4	2.3	3.9	1.3	-M-
25	-M-	1.7	2.7	2.0	1.2	1.5	3.3	2.5	3.2	2.0	0.1	-0.7	-0.8	-0.9	-0.9	-0.7	-0.6	-0.2	0.2	0.0	-0.0	-0.1	-0.1	-0.1
26	-0.1	0.2	0.9	1.7	1.7	1.6	1.9	3.5	0.4	-1.1	-1.7	-1.9	-1.9	-1.6	-1.5	-1.8	-1.7	-1.1	-0.8	-0.4	-0.1	0.6	1.4	0.4
27	-0.1	2.1	2.1	2.7	4.9	5.3	5.3	5.6	3.5	1.6	-0.9	-1.0	-1.2	-1.4	-0.9	-1.3	-1.2	-1.2	-1.0	-0.9	-1.3	-1.5	-1.3	-1.5
28	-1.6	-1.6	-1.6	-1.6	-1.5	-1.3	-1.7	-1.6	-1.7	-1.7	-1.8	-1.8	-1.9	-2.1	-1.7	-1.7	-1.3	-0.1	1.3	4.7	6.1	4.8	6.5	7.8
29	8.8	7.3	6.8	5.9	5.0	4.0	3.0	2.0	1.3	1.0	-0.2	-0.5	-0.6	-0.5	-0.3	0.1	0.8	1.7	2.6	3.0	0.9	0.5	-1.1	-1.1
30	-0.3	0.1	0.4	1.4	3.8	4.0	5.0	4.4	3.1	0.4	-0.5	-0.5	-0.7	-0.7	-0.5	-0.5	-0.4	-0.2	0.0	0.0	0.5	0.4	0.3	0.3
31	-0.1	0.5	0.9	-1.7	-1.6	-1.6	-1.7	-1.6	-1.6	-1.7	-1.9	-1.8	-2.4	-2.2	-2.3	-2.1	-1.8	-1.3	-1.1	-1.1	-1.1	-1.2	-1.1	-1.1
HOURLY MEAN	0.5	0.8	0.9	0.7	0.6	0.7	0.8	0.8	0.4	-0.2	-0.7	-1.1	-1.3	-1.3	-1.3	-1.2	-1.0	-0.6	-0.1	0.3	0.3	0.5	0.5	0.5

MAXIMUM = 10.8 MINIMUM = -2.4 MEAN = 0.0 721 VALID OBSERVATIONS (96.9%)

DAILY STATISTICS

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
MAX	-0.5	1.5	1.8	3.4	2.7	3.2	4.2	4.6	1.9	-0.9	-0.6	-0.6	-0.1	-0.8	-0.8	-1.1
MIN	-1.5	-1.6	-2.0	-2.4	-0.0	-1.4	-2.2	-1.5	-1.5	-1.5	-1.4	-1.3	-1.2	-2.1	-1.7	-1.8
MEAN	-0.9	-0.1	-0.6	-0.4	0.9	0.4	-0.4	-0.1	-0.3	-1.3	-1.1	-1.0	-0.7	-1.5	-1.2	-1.4

DAY	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
MAX	1.5	10.8	10.7	2.6	0.1	-0.1	3.1	6.0	3.3	3.5	5.6	7.8	8.8	5.0	0.9
MIN	-2.2	-0.3	-2.0	-0.9	-0.8	-1.8	-1.3	-1.1	-0.9	-1.9	-1.5	-2.1	-1.1	-0.7	-2.4
MEAN	-1.0	3.1	4.3	0.1	-0.6	-1.0	0.7	1.4	0.7	-0.1	0.7	0.1	2.1	0.8	-1.4

MEAN MAXIMUM = 2.8 MEAN MINIMUM = -1.5

318 FT TO 155 FT DIFFERENTIAL TEMP (C/100 M)
COOPER NUCLEAR STATION
BROWNVILLE, NEBRASKA

JUL-1981

DAY	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
	HOUR																							
1	0.4	-0.2	-0.5	-0.1	-0.2	-0.5	-0.9	-1.4	-1.6	-1.4	-1.7	-2.0	-2.3	-2.4	-3.0	-2.4	-2.3	-2.0	-1.8	-1.2	-0.8	-0.8	-0.8	-0.1
2	-0.0	-0.2	0.1	0.1	0.1	0.1	-0.9	-1.4	-1.3	-1.5	-2.2	-3.4	-2.9	-2.9	-2.4	-2.3	-1.9	-1.3	-1.0	-0.7	-0.1	-0.0	-0.4	-0.2
3	-0.4	-0.5	-0.7	-0.5	-0.4	-0.6	-0.6	-1.2	-1.5	-1.6	-1.4	-1.5	-1.3	-1.7	-1.3	-1.5	-1.5	-1.3	-0.7	-1.5	-0.6	-0.4	-0.4	-0.7
4	-0.8	-1.7	-1.9	-1.8	-1.5	-1.4	-1.4	-1.1	-0.6	-1.1	-2.3	-2.5	-2.6	-2.8	-2.6	-2.2	-2.6	-2.1	-1.9	-1.5	-0.6	-0.4	-0.0	0.3
5	0.6	-0.3	-0.6	-0.4	-1.1	-0.7	-1.5	-3.1	-3.9	-4.4	-4.1	-4.3	-4.0	-3.6	-3.3	-3.2	-2.6	-2.5	-2.1	-1.4	-0.2	1.4	1.8	1.4
6	1.0	1.6	1.2	1.6	2.9	3.4	3.4	0.4	-2.8	-3.3	-3.2	-3.8	-4.4	-6.8	-6.5	-0.8	-0.8	-0.6	-0.8	-0.2	1.0	0.7	0.8	0.7
7	1.7	2.1	1.8	2.1	1.9	1.8	1.5	-0.1	-0.9	-1.0	-1.1	-1.3	-1.4	-1.4	-1.4	-1.3	-1.4	-1.3	-0.9	-0.9	-0.8	-0.6	-0.8	-0.7
8	-0.8	-0.6	-0.5	-0.2	-0.3	-0.6	-0.9	-1.1	-1.1	-1.2	-1.2	-1.2	-1.3	-1.2	-1.3	-1.1	-1.2	-1.0	-0.9	-1.2	1.2	0.7	1.7	-0.2
9	1.4	0.1	-0.2	-0.5	-1.0	-1.5	-0.4	-0.6	-1.0	-1.1	-1.1	-1.1	-1.2	-1.2	-1.2	-1.2	-1.0	-0.9	-1.1	-0.6	-0.1	0.2	0.3	0.6
10	0.6	0.9	0.7	1.1	1.2	2.0	1.6	0.1	-0.6	-1.0	-1.0	-1.0	-1.0	-1.2	-1.1	-1.1	-1.0	-0.8	-0.8	-0.7	-0.1	0.7	0.4	0.3
11	-0.0	-0.1	-0.3	-0.4	-0.4	-0.3	-0.3	-0.8	-0.9	-1.0	-1.1	-1.1	-1.2	-1.1	-1.1	-1.0	-1.0	-0.6	-0.6	-0.5	-0.3	-0.1	-0.1	-0.2
12	-0.5	-0.4	-0.4	-0.4	-0.3	-0.3	-0.5	-0.6	-0.9	-1.1	-1.1	-1.1	-1.2	-1.2	-1.2	-1.1	-1.0	-0.8	-0.8	-0.6	-0.3	0.2	0.2	0.2
13	0.0	-0.3	-0.3	-0.1	-0.3	-0.3	0.1	-0.6	-1.0	-1.0	-1.0	-1.2	-1.2	-1.3	-1.3	-1.3	-1.2	-1.0	-0.8	-0.6	-0.3	0.1	0.6	1.1
14	0.4	2.2	2.4	2.1	0.4	-0.4	-0.3	-0.7	-1.0	-1.0	-1.1	-1.2	-1.3	-1.2	-1.2	-1.0	-1.0	-0.9	-0.7	-0.4	-0.4	0.0	0.0	0.4
15	-0.9	-0.4	0.3	0.4	0.4	0.0	-0.4	-0.2	-0.2	-1.3	-1.3	-1.3	-1.2	-1.1	-1.6	-1.5	-1.3	-1.2	-0.9	-0.4	0.1	-0.0	-0.9	-0.5
16	-0.2	-0.5	-0.8	-1.0	-0.1	-0.4	-0.6	-1.0	-1.4	-1.7	-2.8	-2.6	-1.9	-1.5	-1.1	-1.2	-0.8	-0.9	-0.6	-0.2	0.2	0.5	0.1	0.4
17	0.0	0.8	1.1	0.3	0.3	-0.1	-0.6	0.8	1.2	-0.1	-1.3	-1.1	-1.1	-1.1	-1.1	-0.9	-1.1	0.2	0.1	-0.9	-0.4	0.2	0.1	-0.0
18	0.4	0.4	0.2	0.1	-0.1	-0.1	-0.4	-0.6	-0.8	-0.9	-1.1	-1.1	-1.0	-1.0	-1.2	-1.5	-1.5	-1.5	-1.2	-0.8	-0.4	-0.5	-0.0	0.0
19	-0.2	0.0	-0.1	-0.3	-0.5	-0.5	-0.6	-0.6	-0.8	-0.5	-1.4	-1.4	-0.4	1.7	-1.6	-2.1	-2.1	-2.0	-1.8	-0.5	0.2	1.2	1.1	2.1
20	4.0	4.0	2.7	-0.6	-0.0	0.6	-0.1	-1.5	-2.3	-2.0	-2.6	-2.2	-2.4	-2.8	-2.4	-2.6	-2.1	-1.8	-1.3	0.4	1.9	2.7	5.0	1.5
21	1.3	3.0	2.7	3.8	4.4	4.9	3.5	0.6	-1.3	-1.7	-1.6	-1.1	-0.9	-1.6	-1.2	-1.0	-1.6	-1.2	-0.9	-0.4	0.1	0.7	1.4	1.8
22	1.9	1.9	2.2	1.7	2.5	2.9	2.0	-0.1	-0.9	-1.2	-1.1	-1.0	-1.1	-0.9	-1.1	-1.1	-1.0	-1.0	-0.5	0.2	1.1	0.7	0.3	-0.1
23	-0.4	-0.5	-1.1	-1.0	-0.5	-0.8	-0.5	-0.1	2.0	2.3	1.4	-1.4	-1.1	-1.4	-1.3	-0.9	-1.2	-1.0	-0.8	-0.4	0.4	0.9	0.9	0.6
24	0.1	0.2	-0.1	-0.2	-0.0	0.1	-0.3	-1.0	-1.7	-1.5	-1.0	-0.4	-0.9	-1.1	-0.5	-0.7	-0.8	-0.7	0.2	-0.4	0.8	1.3	1.3	3.1
25	1.4	0.3	-0.8	-0.9	-0.8	-0.3	-0.8	-0.9	-1.1	-0.8	0.0	-0.3	0.2	-1.5	-0.3	3.9	-0.3	-1.1	-1.0	-0.6	-0.2	0.3	0.0	-0.3
26	-0.1	-0.8	-0.7	-0.8	-0.8	-0.3	-0.4	-0.3	0.1	0.3	-1.0	-1.7	-0.7	-0.6	-0.8	-1.8	-1.3	-1.1	-1.1	-1.0	-1.0	-1.0	-0.9	-1.0
27	-1.0	-0.9	-0.8	-0.7	-0.9	-0.8	-0.6	-0.8	-1.0	-1.0	-0.8	-1.1	-1.6	-1.8	-1.5	-1.4	-1.8	-1.7	-1.6	-1.5	-1.4	-1.4	-1.8	-1.9
28	-1.9	-1.8	-1.7	-1.7	-1.8	-1.8	-2.0	-1.7	-2.0	-2.4	-1.4	-1.5	-1.6	-1.3	-1.2	-1.2	-1.0	-1.0	-1.1	-0.9	-0.3	0.4	0.7	0.5
29	0.6	0.1	-0.2	-0.7	-0.6	-0.7	-0.7	-1.1	-1.0	-1.0	-1.1	-1.2	-1.2	-1.4	-1.3	-1.1	-1.0	-1.1	-0.8	-0.6	-0.1	-0.5	-0.5	-0.5
30	-0.3	-0.5	-0.6	-0.6	-0.4	-0.6	-1.0	-1.0	-1.1	-1.1	-1.2	-1.1	-1.2	-1.3	-1.2	-1.1	-1.0	-1.0	-0.9	-0.7	-0.6	-0.5	-0.4	-0.5
31	-0.7	-0.8	-0.8	-0.7	-0.8	-0.7	-0.7	-1.0	-1.0	-1.0	-1.0	-1.1	-1.2	-1.2	-1.2	-1.1	-1.0	-0.9	-0.8	-0.6	-0.6	-0.5	-0.0	0.2
HOURLY MEAN	0.3	0.2	0.1	-0.0	0.0	0.1	-0.2	-0.7	-1.0	-1.2	-1.4	-1.6	-1.5	-1.6	-1.6	-1.3	-1.3	-1.2	-1.0	-0.7	-0.1	0.2	0.3	0.3

MAXIMUM = 5.0 MINIMUM = -6.8 MEAN = -0.6 744 VALID OBSERVATIONS (100.0%)

DAILY STATISTICS

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
MAX	0.4	0.1	-0.4	0.3	1.8	3.4	2.1	1.7	1.4	2.0	-0.0	0.2	1.1	2.4	0.4	0.5
MIN	-3.0	-3.4	-1.7	-2.8	-4.4	-6.8	-1.4	-1.3	-1.5	-1.2	-1.2	-1.2	-1.3	-1.3	-1.6	-2.8
MEAN	-1.3	-1.1	-1.0	-1.5	-1.8	-0.6	-0.2	-0.6	-0.6	-0.1	-0.6	-0.6	-0.5	-0.2	-0.6	-0.8

DAY	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
MAX	1.2	0.4	2.1	5.0	4.9	2.9	2.3	3.1	3.9	0.3	-0.6	0.7	0.6	-0.3	0.2
MIN	-1.3	-1.5	-2.1	-2.8	-1.7	-1.2	-1.4	-1.7	-1.5	-1.8	-1.9	-2.4	-1.4	-1.3	-1.2
MEAN	-0.2	-0.6	-0.5	-0.2	0.6	0.3	-0.2	-0.2	-0.2	-0.8	-1.2	-1.2	-0.7	-0.8	-0.8

MEAN MAXIMUM = 1.4 MEAN MINIMUM = -2.0

318 FT TO 155 FT DIFFERENTIAL TEMP (C/100 M)
COOPER NUCLEAR STATION
BROWNVILLE, NEBRASKA

AUG-1981

DAY	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
	HOUR																							
1	0.0	0.1	-0.2	-0.5	-0.5	-0.6	-0.8	-0.9	-1.1	-1.2	-1.2	-1.2	-1.2	-1.2	-1.2	-1.0	-0.9	-M-	-M-	-M-	-M-	-M-	-M-	-0.7
2	-1.0	-1.1	-1.1	-0.7	-0.3	-0.3	-0.2	-0.4	0.1	0.1	-0.8	-1.4	-1.3	-1.2	-1.6	-1.8	-1.8	-1.2	-1.1	-0.4	0.1	0.5	0.3	2.5
3	0.8	-0.0	0.5	1.0	1.6	0.6	-0.2	-0.2	0.1	0.7	0.5	0.2	0.4	1.8	-0.8	-1.3	-1.3	-1.0	-0.8	-0.5	1.1	2.1	2.9	2.2
4	2.1	1.5	0.3	0.4	0.6	1.0	0.9	0.6	-0.9	-1.0	-0.9	-1.1	-1.2	-1.3	-1.2	-1.2	-1.1	-0.8	-0.5	0.1	0.6	1.0	0.6	0.3
5	0.8	0.1	-0.2	-0.0	-0.1	-0.1	-0.2	-0.4	-1.5	-0.1	-0.9	-1.1	-1.5	-1.2	-0.8	-1.0	-1.1	-1.0	-0.9	-0.7	-0.2	1.1	1.5	1.9
6	0.8	1.7	0.5	1.0	0.4	-0.2	-0.2	-0.2	-0.4	-0.5	-1.1	-1.2	-1.2	-1.8	-1.7	-1.9	-1.3	-1.1	-0.6	-0.2	2.3	3.5	3.4	0.9
7	1.3	-0.0	0.2	0.5	0.1	0.3	-0.3	-1.4	-1.8	-2.0	-2.0	-2.0	-2.0	-1.9	-2.0	-1.9	-1.7	-1.5	-1.0	-0.3	1.9	2.3	0.9	0.4
8	0.8	0.4	0.2	0.9	0.8	0.2	-0.2	-0.4	-1.3	-0.7	-1.2	-1.4	-1.6	-2.0	-2.4	-1.6	-1.3	-0.8	1.2	2.2	2.6	2.8	1.9	2.7
9	1.8	1.6	1.5	1.9	1.8	1.4	0.6	-0.1	-1.6	-1.6	-1.5	-1.9	-2.8	-2.3	-1.9	-2.2	-1.8	-0.3	-0.2	0.3	-0.1	-1.3	-1.2	-1.4
10	-1.2	-0.6	-1.3	-0.2	0.3	0.7	0.9	-1.4	-2.4	-1.2	-1.2	-2.1	-2.2	-2.5	-2.6	-2.0	-2.3	-1.6	-0.8	-0.7	0.4	2.3	1.7	2.7
11	4.5	5.2	5.0	5.3	4.8	4.0	3.1	2.7	0.4	-1.1	-1.2	-1.2	-1.3	-1.4	-1.4	-1.2	-M-	-1.0	-0.4	0.9	2.5	3.8	3.9	2.3
12	1.0	1.1	0.9	1.8	1.2	1.2	1.6	1.3	0.1	-0.9	-1.1	-1.1	-1.2	-1.3	-1.2	-1.2	-1.1	-0.8	-0.1	1.5	2.2	1.7	1.8	2.0
13	1.1	0.9	0.4	0.7	0.1	-0.0	0.3	0.4	0.1	0.8	-0.5	-0.9	-1.0	-0.9	-1.0	-0.9	-0.5	-0.4	-1.2	-0.8	-0.8	-0.7	-0.8	-0.7
14	-0.7	-0.6	-0.5	-0.4	-0.3	-0.4	-0.5	-0.7	-0.9	-1.1	-1.1	-1.2	-1.2	-1.1	-1.2	-1.1	-0.7	-0.3	-0.5	0.2	1.2	2.0	1.9	0.8
15	1.2	-0.0	-0.7	-1.4	-1.5	-1.2	-1.3	-1.5	-1.4	-1.4	-1.4	-1.8	-1.5	-1.7	-1.4	-1.4	-1.2	-1.0	-0.6	-0.2	0.4	0.6	0.7	-0.6
16	-0.8	-0.4	-0.2	-0.9	-0.5	-0.4	-0.8	-1.3	-1.3	-1.2	-1.3	-1.4	-1.3	-1.3	-1.3	-1.2	-1.0	-0.9	-0.6	0.1	-0.1	-0.4	-0.5	-0.7
17	-0.7	-0.6	-0.7	-0.6	-0.5	-0.5	-0.8	-1.1	-1.1	-1.2	-1.1	-1.1	-1.1	-1.1	-1.2	-1.1	-1.1	-0.9	-0.6	-0.5	0.0	1.5	1.5	1.0
18	0.1	0.1	0.2	0.5	0.6	0.5	0.6	-0.6	-0.8	-0.9	-1.1	-1.3	-1.2	-1.3	-1.2	-1.2	-1.1	-0.9	-0.9	-0.5	1.0	2.8	1.6	1.7
19	2.3	2.3	1.9	1.2	1.9	2.0	1.9	1.2	-0.3	-0.6	-0.9	-1.3	-1.2	-1.3	-1.6	-1.4	-1.2	-1.0	-0.8	-0.2	0.6	1.2	3.6	3.9
20	3.7	4.3	5.8	4.9	4.8	6.5	9.5	6.5	2.4	-0.3	-1.2	-1.2	-1.3	-1.2	-1.3	-1.2	-1.3	-1.0	-0.8	0.1	1.9	3.5	3.3	3.9
21	4.0	5.3	4.2	4.5	4.8	5.0	-M-	-M-	-M-	-M-	-1.3	-1.5	-1.4	-1.4	-1.6	-1.3	-1.3	-1.0	-0.4	0.8	2.0	1.9	1.9	2.4
22	2.2	2.7	1.3	1.5	1.2	1.5	1.2	0.9	-0.4	-1.1	-1.3	-1.3	-1.2	-1.3	-1.3	-1.1	-0.9	-0.6	-0.0	1.2	1.7	1.3	0.6	0.2
23	-0.0	-0.0	1.3	0.3	0.7	1.3	1.0	0.2	-0.8	-1.1	-1.1	-1.2	-1.0	-1.1	-1.0	-1.3	-0.8	-0.3	-0.2	-0.3	-0.6	-0.2	-0.5	-0.4
24	0.1	0.8	1.0	0.3	0.0	-0.1	-0.1	0.3	1.6	2.5	3.1	3.3	4.3	2.7	-1.9	-1.3	-1.2	-1.0	-0.7	0.1	0.9	2.0	1.3	1.8
25	2.5	2.2	0.3	-0.2	-0.9	-1.0	1.4	1.6	0.9	0.6	-0.5	-0.7	-0.9	-1.2	-1.3	-1.2	-1.1	-1.1	-0.9	-0.1	-0.1	0.4	0.6	0.6
26	0.8	1.1	1.5	0.5	-1.0	-0.1	0.1	-0.7	-0.9	-1.1	-1.4	-1.2	-1.2	-1.5	-1.5	-1.7	-2.2	-1.9	-0.6	-0.1	-0.4	0.6	0.3	-0.6
27	-0.8	-0.8	-0.9	-1.2	-1.1	-0.9	-1.4	-1.5	-1.6	-1.7	-1.7	-2.4	-2.0	-2.1	-2.1	-1.9	-2.1	-1.6	-1.7	-0.9	-1.4	-1.4	-1.3	0.0
28	-0.4	-0.5	-0.3	-0.5	-0.2	-0.7	-0.5	-0.9	-1.5	-1.6	-2.1	-2.4	-2.1	-1.8	-2.2	-2.4	-2.4	-2.2	-1.7	-0.8	-0.4	-0.2	0.5	1.1
29	1.4	2.2	1.0	1.8	2.5	2.8	2.7	2.9	0.2	-0.2	-0.5	-1.3	-1.3	-1.3	-1.3	-1.1	-1.1	-0.8	-0.0	0.7	0.7	0.9	1.1	3.2
30	2.9	1.7	1.4	0.8	1.0	1.8	1.1	2.1	0.8	-0.9	-1.3	-1.2	-1.3	-1.2	-1.0	-0.7	-0.6	-0.3	0.1	0.4	0.2	0.0	0.2	0.7
31	1.0	0.5	0.0	-0.3	-0.5	-0.4	0.2	-0.3	-0.8	-1.0	-1.0	-0.9	-1.3	-1.2	-1.3	-1.2	-1.6	-1.6	-1.5	-1.4	-1.5	-0.5	-0.4	-0.3
HOURLY MEAN	1.0	1.0	0.8	0.7	0.7	0.8	0.7	0.2	-0.5	-0.7	-1.0	-1.2	-1.2	-1.2	-1.5	-1.4	-1.3	-1.0	-0.6	-0.0	0.6	1.2	1.1	1.1

MAXIMUM = 9.5 MINIMUM = -2.8 MEAN = -0.1 733 VALID OBSERVATIONS (98.5%)

DAILY STATISTICS

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
MAX	0.1	2.5	2.9	2.1	1.9	3.5	2.3	2.8	1.9	2.7	5.3	2.2	1.1	2.0	1.2	0.1
MIN	-1.2	-1.8	-1.3	-1.3	-1.5	-1.9	-2.0	-2.4	-2.8	-2.6	-1.4	-1.3	-1.2	-1.2	-1.8	-1.4
MEAN	-0.8	-0.6	0.4	-0.1	-0.3	0.0	-0.6	0.1	-0.5	-0.7	1.7	0.4	-0.3	-0.4	-0.8	-0.8

DAY	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
MAX	1.5	2.8	3.9	9.5	5.3	2.7	1.3	4.3	2.5	1.5	0.0	1.1	3.2	2.9	1.0
MIN	-1.2	-1.3	-1.6	-1.3	-1.6	-1.3	-1.3	-1.9	-1.3	-2.2	-2.4	-2.4	-1.3	-1.3	-1.6
MEAN	-0.6	-0.1	0.5	2.1	1.3	0.3	-0.3	0.8	0.0	-0.6	-1.4	-1.1	0.6	0.3	-0.7

MEAN MAXIMUM = 2.5 MEAN MINIMUM = -1.7

318 FT TO 155 FT DIFFERENTIAL TEMP (C/100 M)
COOPER NUCLEAR STATION
BROWNVILLE, NEBRASKA

SEP-1981

DAY	HOUR 0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	-0.1	-0.4	-1.0	-1.3	-1.3	-1.4	-1.7	-1.9	-2.2	-2.3	-1.9	-2.1	-2.4	-2.3	-2.4	-1.6	-1.7	-1.2	-1.0	-0.3	0.2	0.4	1.0	0.1
2	-0.5	-0.3	0.3	0.8	1.6	2.1	3.1	1.7	-0.1	-0.6	-1.3	-1.4	-1.4	-1.3	-1.4	-1.3	-1.3	-1.1	-0.5	0.8	2.1	2.5	2.6	2.9
3	3.3	3.2	1.8	2.5	2.8	2.5	2.2	1.0	-0.3	-1.1	-1.2	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-
4	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-1.3	-1.2	-1.3	-1.2	-1.3	-1.1	-0.6	0.3	1.6	1.7	1.0	1.3
5	2.1	2.1	2.8	2.4	1.2	2.4	1.3	0.3	-1.0	-1.0	-1.1	-1.3	-1.4	-1.5	-1.4	-1.4	-1.3	-1.0	-0.5	0.8	1.4	1.5	1.3	1.3
6	2.3	2.2	1.5	2.0	1.8	2.0	1.8	-0.2	-1.2	-1.3	-1.4	-1.4	-1.3	-1.2	-1.2	-1.3	-1.3	-1.0	-0.8	-0.5	-0.7	-0.7	-1.0	-0.9
7	-0.8	-1.0	-0.8	-0.6	-0.7	-0.8	-1.4	-1.9	-1.9	-1.6	-1.8	-1.7	-1.9	-1.9	-1.9	-1.8	-1.8	-1.7	-0.7	0.7	0.9	1.9	3.2	4.3
8	3.0	1.8	2.7	2.1	1.0	1.8	2.6	1.8	-0.7	-1.5	-2.5	-2.0	-2.7	-2.4	-2.8	-2.7	-2.7	-2.1	-0.8	1.5	3.2	3.7	4.2	6.0
9	5.2	3.9	3.3	2.8	2.1	2.7	2.4	2.4	0.2	-1.0	-1.4	-1.4	-1.5	-1.4	-1.4	-1.3	-1.2	-0.9	0.4	3.2	5.2	4.7	3.4	2.7
10	1.7	1.2	1.0	1.1	1.2	1.5	1.4	0.8	-0.8	-1.0	-1.3	-1.5	-1.5	-1.4	-1.4	-1.4	-1.2	-0.7	-0.1	1.5	1.9	1.5	1.1	0.2
11	0.1	0.1	0.7	0.9	0.6	0.1	0.0	-0.5	-1.1	-1.2	-1.3	-1.2	-1.4	-1.4	-1.7	-2.2	-2.3	-1.8	-0.7	-0.3	1.1	0.6	1.1	0.4
12	0.5	0.2	0.3	0.4	1.2	2.4	4.0	1.8	-1.7	-1.5	-2.4	-2.3	-2.4	-2.1	-2.0	-1.8	-1.6	-0.9	-0.2	0.8	3.4	6.0	6.8	8.5
13	5.1	4.3	4.0	6.0	5.0	4.2	5.1	4.2	2.4	-0.4	-1.1	-1.2	-1.6	-1.4	-1.3	-1.4	-1.2	-1.0	0.5	2.7	3.8	4.5	2.1	1.4
14	-0.2	-0.4	-1.0	-1.0	-1.0	-1.1	-1.4	-1.2	-1.3	-1.3	-1.4	-1.4	-1.3	-1.4	-1.4	-1.2	-1.1	-0.6	0.5	1.1	1.2	0.7	0.1	0.2
15	0.2	0.0	-0.4	-0.6	-0.3	-0.8	-0.5	-0.7	-1.2	-1.6	-1.5	-1.4	-1.6	-1.5	-1.5	-1.4	-1.2	-0.8	-0.6	-0.4	-0.8	-1.0	-1.2	-1.0
16	-1.3	-0.9	-0.5	-1.1	-1.0	-0.7	-0.8	-1.1	-1.8	-1.9	-1.8	-1.7	-1.6	-1.7	-1.8	-1.6	-1.3	-1.5	-1.4	-1.0	-0.1	0.4	0.3	-0.7
17	-1.0	-0.7	-0.3	-0.2	-0.4	-0.4	-0.1	-0.8	-1.9	-1.8	-1.9	-2.1	-1.9	-1.8	-1.6	-1.7	-1.6	-1.1	0.0	0.7	2.1	3.7	4.1	1.8
18	4.9	7.0	7.7	7.4	8.2	9.0	6.5	5.2	2.0	-0.7	-1.1	-1.1	-1.4	-1.4	-1.3	-1.2	-1.1	-1.1	-0.1	-M-	2.7	3.1	3.1	2.2
19	1.0	0.6	0.6	0.8	0.8	1.0	0.8	0.4	-0.9	-1.1	-1.2	-1.2	-1.3	-1.4	-1.4	-1.3	-1.1	-0.9	-0.2	0.8	1.9	2.0	1.6	1.0
20	1.5	1.8	0.6	0.6	0.8	0.9	1.9	1.5	-0.3	-1.0	-1.2	-1.1	-1.3	-1.6	-1.5	-1.6	-1.3	-0.9	-0.2	0.3	1.0	1.9	0.4	-0.2
21	0.4	2.8	1.0	0.5	0.9	0.4	-0.3	-0.9	-1.6	-1.7	-1.9	-2.1	-2.1	-2.1	-1.7	-1.8	-1.2	-0.6	0.8	1.1	0.9	0.3	0.3	-0.1
22	-0.6	-0.9	-0.9	-0.8	-0.7	-0.6	-0.9	-1.2	-1.1	-1.2	-1.2	-1.2	-1.4	-1.3	-1.1	-1.1	-1.2	-0.8	-0.5	0.1	-0.1	-0.3	-0.6	-0.8
23	-0.8	-0.9	-0.8	-0.8	-0.9	-0.9	-0.8	-1.0	-1.1	-1.2	-1.2	-1.2	-1.5	-1.5	-1.4	-1.3	-1.0	-0.8	-0.5	0.3	0.9	0.1	-0.5	-0.6
24	0.1	0.5	0.2	-0.1	0.2	1.1	1.1	0.0	-0.7	-0.9	-0.7	-1.2	-0.9	-1.1	-1.1	-1.2	-1.0	-1.0	-1.0	-1.0	-0.9	-0.9	-0.5	-0.2
25	-0.1	-0.2	-0.3	-0.4	0.2	0.3	0.4	0.5	-0.2	-1.0	-1.1	-1.4	-1.4	-1.4	-1.4	-1.4	-1.2	-0.8	-0.6	-0.2	-0.2	0.3	0.8	0.2
26	-0.4	-0.3	-0.3	-0.3	-0.3	-0.3	1.1	2.7	0.3	-1.3	-1.9	-1.8	-1.8	-1.9	-1.7	-1.8	-1.6	-1.2	0.1	1.9	2.8	2.4	2.8	4.9
27	6.6	7.8	7.7	9.4	10.9	7.0	-M-	-M-	-0.0	-1.5	-1.7	-1.7	-1.7	-1.7	-1.8	-1.8	-1.8	-1.6	-0.2	0.7	1.2	1.7	1.8	1.7
28	1.7	1.8	1.6	1.7	2.0	1.1	0.5	0.4	-1.0	-1.1	-1.2	-1.2	-1.3	-1.5	-1.5	-1.4	-1.1	-1.0	-0.5	-0.0	-0.3	-0.5	-0.5	-0.5
29	-0.6	-0.4	-0.2	-0.5	-0.4	-0.5	-0.5	-0.8	-1.0	-1.1	-1.4	-1.4	-1.6	-1.7	-1.7	-1.5	-1.3	-1.0	-0.2	0.7	-0.1	-0.0	-0.4	-0.2
30	-0.2	-0.1	-0.4	-0.3	-0.4	-0.5	-0.6	-0.4	-0.9	-1.2	-1.4	-1.4	-1.5	-1.3	-1.5	-1.8	-1.6	-1.4	-1.3	-1.1	-1.0	-1.1	-0.8	-0.5
HOURLY MEAN	1.1	1.2	1.1	1.2	1.2	1.2	1.0	0.4	-0.7	-1.2	-1.5	-1.5	-1.6	-1.6	-1.6	-1.5	-1.4	-1.1	-0.4	0.5	1.2	1.4	1.3	1.2

MAXIMUM = 10.9 MINIMUM = -2.8 MEAN = -0.0 692 VALID OBSERVATIONS (96.1%)

DAILY STATISTICS

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
MAX	1.0	3.1	3.3	1.7	2.8	2.3	4.3	6.0	5.2	1.9	1.1	8.5	6.0	1.2	0.2
MIN	-2.4	-1.4	-1.2	-1.3	-1.5	-1.4	-1.9	-2.8	-1.5	-1.5	-2.3	-2.4	-1.6	-1.4	-1.6
MEAN	-1.2	0.3	1.5	-0.2	0.3	-0.2	-0.6	0.5	1.4	0.2	-0.5	0.7	1.9	-0.7	-0.9

DAY	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
MAX	0.4	4.1	9.0	2.0	1.9	2.8	0.1	0.9	1.1	0.8	4.9	10.9	2.0	0.7	-0.1
MIN	-1.9	-2.1	-1.4	-1.4	-1.6	-2.1	-1.4	-1.5	-1.2	-1.4	-1.9	-1.8	-1.5	-1.7	-1.8
MEAN	-1.1	-0.4	2.5	0.0	0.0	-0.4	-0.8	-0.8	-0.5	-0.4	0.1	1.9	-0.2	-0.7	-0.9

MEAN MAXIMUM = 3.0 MEAN MINIMUM = -1.7

318 TO 155 FT DIFFERENTIAL TEMPERATURE (C/100M)
COOPER NUCLEAR STATION METEOROLOGICAL DATA
BROWNVILLE, NEBRASKA

OCT-1981

DAY	HOUR 0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	-0.5	-0.5	0.0	0.5	1.4	2.2	2.3	1.6	-0.6	-1.3	-1.8	-2.1	-2.2	-2.2	-2.1	-1.9	-1.7	-1.3	-0.4	0.5	0.4	-0.0	-0.4	-0.3
2	-0.7	-0.6	-0.3	-0.3	-0.2	0.5	2.0	2.1	-0.5	-1.0	-1.2	-1.2	-1.3	-1.3	-1.3	-1.3	-1.2	-1.0	-0.4	0.6	0.1	-0.0	-0.3	-0.1
3	-0.5	-0.8	-0.5	-0.6	-0.5	-0.6	-0.4	-0.4	0.1	-0.4	-0.6	-0.5	-0.3	-0.3	-0.2	-0.4	-0.8	-1.3	-0.7	-0.6	-0.6	-0.6	0.2	0.2
4	0.2	0.7	0.3	0.2	0.6	0.3	1.0	1.9	0.6	-1.2	-1.3	-1.1	-1.9	-1.9	-1.3	-1.1	-1.1	-1.0	-0.6	-0.0	-0.0	1.6	1.5	-0.1
5	-0.5	-0.6	-0.4	-0.3	0.0	0.1	0.3	0.4	1.5	-0.6	-1.3	-1.3	-1.3	-1.4	-1.5	-1.5	-1.3	-1.2	-1.2	-1.1	-0.8	-0.7	-0.8	-0.7
6	-0.6	-0.6	-0.5	-0.5	-0.4	-0.3	-0.3	-0.5	-1.3	-1.7	-1.7	-1.6	-2.0	-2.0	-1.9	-1.6	-1.5	-1.3	-0.3	-0.1	0.8	1.4	1.3	2.4
7	3.9	3.8	3.8	3.6	1.6	0.5	0.5	0.4	-0.8	-1.2	-1.2	-1.3	-1.2	-1.2	-1.2	-1.0	-1.0	-0.9	-0.3	0.5	0.7	1.6	1.9	2.2
8	3.6	3.2	3.2	2.4	2.7	2.5	1.5	2.0	0.4	-1.0	-1.2	-1.3	-1.5	-1.5	-1.3	-1.3	-1.2	-1.0	-0.2	0.6	0.6	0.7	1.0	-0.0
9	-0.5	-0.7	-0.6	-0.7	-0.6	-0.3	-0.1	-0.7	-0.7	-1.0	-1.0	-1.1	-1.0	-1.2	-1.1	-1.1	-1.2	-1.2	-1.2	-1.1	-1.0	-0.8	-0.8	-0.8
10	-0.8	-0.7	-0.6	-0.6	-0.6	-0.7	-0.5	-0.3	0.1	0.9	1.2	1.6	1.2	1.5	0.8	1.0	-0.3	-2.4	-0.6	0.2	0.5	1.0	1.3	1.4
11	1.8	2.0	2.6	2.3	2.4	1.3	1.6	1.6	0.3	-1.0	-1.2	-1.2	-1.3	-1.2	-1.1	-1.1	-0.9	-0.7	-0.5	-0.6	-0.5	-0.1	-0.1	-0.3
12	-0.4	-0.7	-0.7	-0.7	-1.0	-0.9	-1.0	-1.1	-1.1	-1.0	-0.9	-1.6	-1.2	-1.1	-1.1	-1.1	-1.1	-1.1	-1.0	-1.0	-1.0	-0.7	-0.6	-0.6
13	-0.5	-0.5	-0.5	-0.7	-0.7	-0.8	-0.6	-0.6	-0.6	-0.7	-0.8	-1.4	-1.4	-1.3	-1.2	-1.0	-1.1	-1.1	-0.8	-0.6	-0.7	-0.6	-0.7	-0.8
14	-0.9	-0.8	-0.8	-0.9	-1.1	-1.1	-1.1	-1.1	-1.3	-1.7	-1.8	-1.8	-2.0	-2.2	-1.6	-1.5	-1.4	-1.3	-1.3	-1.3	-1.3	-1.3	-1.2	-1.2
15	-1.2	-1.0	-1.0	-1.1	-1.2	-1.3	-1.4	-1.3	-1.7	-1.7	-1.3	-1.3	-1.4	-1.5	-1.3	-1.3	-1.2	-1.1	-0.5	-0.2	1.1	2.1	1.8	2.5
16	2.1	1.8	1.3	1.4	1.1	1.0	0.4	0.7	0.9	-0.3	-1.1	-1.1	-1.2	-0.9	-1.1	-1.1	-1.0	-0.9	-0.8	-0.8	-1.0	-1.0	-1.0	-1.0
17	-0.9	-0.5	-0.3	-0.6	-0.5	-0.7	-0.2	-0.7	-1.0	-1.3	-1.3	-1.3	-1.3	-1.5	-1.5	-1.4	-1.3	-1.1	-0.7	-0.4	-0.2	-M-	-M-	-M-
18	-0.8	-0.8	-0.8	-0.9	-0.9	-1.0	-0.8	-0.9	-1.2	-1.5	-1.7	-1.8	-1.8	-1.7	-1.6	-1.6	-1.4	-1.1	-0.5	0.2	0.4	2.5	4.0	5.7
19	5.4	5.0	2.7	1.2	0.1	1.6	1.5	1.6	0.3	-0.9	-1.1	-1.3	-0.9	-0.9	-0.8	-0.7	-0.5	0.0	1.7	2.0	1.4	0.7	0.3	0.2
20	0.2	0.2	0.4	0.5	0.4	0.5	0.9	0.6	-0.4	-0.7	-0.6	-0.8	-1.1	-1.0	-1.0	-0.9	-0.8	-0.6	-0.3	-0.5	-0.6	-0.6	-0.6	-0.6
21	-0.4	-0.3	-0.5	-0.6	-0.6	-0.6	-0.7	-0.7	-0.8	-0.9	-0.9	-0.9	-1.0	-1.0	-0.9	-0.9	-0.9	-0.8	-0.9	-0.8	-0.5	-0.8	-1.0	-1.0
22	-0.9	-0.7	-0.3	-0.6	-0.9	-1.0	-1.0	-0.9	-1.6	-1.6	-1.6	-1.9	-1.9	-2.0	-2.0	-1.9	-1.7	-1.1	0.3	0.4	-1.1	-1.2	-1.1	-0.4
23	0.2	0.0	-0.2	0.1	0.6	0.5	1.6	2.3	-0.4	-1.6	-1.7	-1.9	-1.7	-1.5	-1.0	-1.0	-1.0	-0.7	-0.1	1.3	1.4	1.2	0.7	0.1
24	-0.4	-0.5	-0.4	-0.3	-0.4	-0.5	-0.6	-0.6	-0.6	-0.6	-0.8	-0.8	-0.8	-0.8	-0.8	-0.7	-0.6	-0.5	-0.1	0.6	0.7	0.6	0.2	1.3
25	1.1	0.4	-0.5	-0.3	0.8	1.0	1.1	0.6	0.2	-1.0	-1.5	-1.3	-1.3	-1.4	-1.3	-1.3	-1.2	-0.8	0.3	0.6	0.9	1.0	0.6	0.3
26	0.0	0.1	0.4	0.5	1.4	3.8	4.2	2.8	2.7	-0.6	-1.0	-1.1	-1.2	-1.2	-1.2	-1.2	-1.1	-0.9	0.1	1.2	1.5	0.6	0.7	0.7
27	1.3	1.8	1.5	1.8	2.4	1.9	2.2	1.6	-0.0	-1.0	-1.1	-1.1	-1.3	-1.3	-1.3	-1.3	-1.1	-0.6	0.8	1.5	1.0	0.8	0.0	0.2
28	0.2	0.2	-0.0	-0.1	0.2	1.4	2.3	2.9	0.5	-0.7	-1.1	-1.1	-1.3	-1.4	-1.3	-1.3	-1.1	-0.9	-0.8	-0.7	-0.6	-0.6	-0.5	-0.5
29	-0.4	-0.4	-0.3	-0.3	-0.4	-0.4	-0.4	0.1	-0.7	-1.1	-1.2	-1.4	-1.5	-1.4	-1.4	-1.2	-1.1	-0.9	-0.8	-0.8	-0.9	-0.9	-0.8	-0.7
30	-0.8	-0.8	-0.9	-0.9	-0.9	-0.9	-0.9	-0.9	-1.0	-1.0	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.0	-0.6	-0.5	-0.4	-0.3	-0.4	-0.3
31	-0.5	-0.5	-1.1	-1.0	-0.6	-0.5	-0.9	-0.9	-0.9	-1.1	-1.3	-1.0	-1.0	-0.9	-0.9	-0.8	-0.5	-0.1	-0.3	-0.5	-0.8	-0.8	-0.9	-1.1
HOURLY MEAN	0.3	0.2	0.2	0.1	0.1	0.2	0.4	0.4	-0.3	-1.0	-1.1	-1.2	-1.3	-1.3	-1.2	-1.1	-1.1	-1.0	-0.4	-0.0	-0.0	0.2	0.1	0.2

MAXIMUM = 5.7 MINIMUM = -2.4 MEAN = -0.4 741 VALID OBSERVATIONS (99.6%)

DAILY STATISTICS

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
MAX	2.3	2.1	0.2	1.9	1.5	2.4	3.9	3.6	-0.1	1.6	2.6	-0.4	-0.5	-0.8	2.5	2.1
MIN	-2.2	-1.3	-1.3	-1.9	-1.5	-2.0	-1.3	-1.5	-1.2	-2.4	-1.3	-1.6	-1.4	-2.2	-1.7	-1.2
MEAN	-0.4	-0.4	-0.5	-0.2	-0.7	-0.6	0.6	0.5	-0.9	0.2	0.2	-0.9	-0.8	-1.3	-0.7	-0.1

DAY	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
MAX	-0.2	5.7	5.4	0.9	-0.3	0.4	2.3	1.3	1.1	4.2	2.4	2.9	0.1	-0.3	-0.1
MIN	-1.5	-1.8	-1.3	-1.1	-1.0	-2.0	-1.9	-0.8	-1.5	-1.2	-1.3	-1.4	-1.5	-1.1	-1.3
MEAN	-0.9	-0.4	0.8	-0.3	-0.8	-1.1	-0.1	-0.3	-0.1	0.5	0.4	-0.3	-0.8	-0.8	-0.8

MEAN MAXIMUM = 1.6 MEAN MINIMUM = -1.5

318 TO 155 FT DIFFERENTIAL TEMPERATURE (C/100M)
COOPER NUCLEAR STATION METEOROLOGICAL DATA
BROWNVILLE, NEBRASKA

NOV-1981

DAY	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
	HOUR																							
1	-0.8	-1.0	-1.0	-1.0	-1.0	-0.9	-0.9	-0.9	-0.9	-0.9	-0.9	-0.9	-0.9	-0.9	-1.3	-1.3	-0.8	-0.7	-0.7	-0.7	-1.1	-0.5	-0.7	-0.9
2	-0.8	-0.5	-0.8	-0.8	-1.5	-1.3	-1.2	-0.3	0.1	-0.5	-0.8	-0.9	-1.7	-1.0	-1.1	-1.1	-0.9	-0.7	-0.7	-0.3	-0.3	-0.2	0.5	2.8
3	2.9	1.9	2.9	3.0	-0.3	-0.6	-0.9	-0.5	-0.2	0.4	0.7	0.9	0.1	-0.0	0.1	-0.5	-1.5	-0.9	-0.5	0.2	0.5	1.8	1.6	1.1
4	1.0	1.3	1.2	-0.0	-0.5	-0.6	-1.0	-0.9	-0.8	-0.7	0.2	-0.4	-0.0	-0.2	-0.2	-0.6	-0.6	-0.5	-1.0	-0.7	-0.7	-0.7	-0.7	-0.5
5	-0.5	-0.9	-0.6	-0.3	-0.2	-0.2	0.4	1.0	-0.8	-1.4	-1.7	-1.8	-1.8	-1.7	-1.7	-1.6	-1.2	-0.7	-0.1	0.2	0.3	0.2	-M-	-M-
6	-M-	-M-	0.8	1.1	1.0	0.1	1.0	0.4	-0.3	-1.3	-1.0	-1.2	-1.3	-1.3	-1.1	-1.1	-1.0	-0.5	1.2	3.9	3.0	2.9	3.7	4.4
7	5.6	3.5	4.2	5.5	5.8	4.7	4.6	3.6	3.5	0.5	-0.8	-1.0	-1.2	-1.2	-1.1	-1.1	-1.0	-0.8	-0.3	0.6	1.2	1.1	1.3	1.6
8	1.8	1.9	0.9	2.1	3.6	2.9	0.7	-0.9	-1.1	-1.3	-1.4	-1.3	-1.3	-1.3	-1.2	-1.2	-1.2	-1.2	-1.0	-1.0	-0.9	-1.0	-0.9	-0.7
9	-0.6	-0.8	-0.8	-1.0	-1.2	-1.0	-1.3	-1.2	-1.4	-1.6	-1.9	-1.9	-2.0	-2.0	-1.7	-1.5	-1.3	-0.9	-0.5	-0.4	1.3	1.6	2.5	3.9
10	4.3	4.1	5.1	3.1	1.0	0.7	0.7	1.0	0.2	-0.9	-1.1	-1.2	-1.2	-1.2	-1.2	-1.1	-1.0	-0.4	0.6	1.7	2.5	2.9	1.9	4.1
11	7.1	8.0	5.7	6.5	5.4	1.3	0.9	0.3	0.2	-0.1	-0.9	-1.0	-1.0	-1.0	-1.1	-0.9	-1.0	-0.7	0.3	1.8	1.8	1.6	1.7	2.1
12	3.1	3.2	3.3	2.7	3.3	3.7	3.6	4.0	3.5	0.6	-0.2	-0.9	-1.2	-1.3	-1.2	-1.2	-1.1	-0.5	0.3	1.6	1.7	1.3	1.5	1.4
13	0.5	0.7	1.5	2.4	3.2	2.0	2.1	1.0	1.7	0.5	-0.7	-1.0	-1.3	-1.3	-1.3	-1.2	-1.1	-0.7	-0.1	0.3	-0.0	0.6	0.7	0.7
14	0.2	0.0	0.3	0.5	0.2	0.2	0.4	0.3	-0.2	-0.7	-1.1	-1.2	-1.2	-1.3	-1.1	-1.1	-1.0	-0.8	-0.7	-0.7	-0.7	-0.6	-0.6	-0.7
15	-0.8	-0.8	-0.8	-0.7	-0.6	-0.7	-0.2	0.0	-0.3	-0.9	-1.1	-1.3	-1.6	-2.0	-1.6	-1.4	-1.4	-0.9	1.5	3.1	1.9	-M-	-M-	-M-
16	2.8	2.7	1.7	2.7	2.7	3.2	3.3	2.8	1.8	2.6	-0.3	-1.2	-1.2	-1.4	-1.4	-2.2	-1.5	-1.0	-0.2	2.3	3.9	4.1	4.3	4.0
17	3.9	5.8	7.4	6.9	7.8	8.7	7.5	8.2	3.9	1.8	-0.5	-1.0	-1.0	-1.1	-1.1	-1.1	-0.8	0.2	1.9	2.3	1.8	1.1	0.6	0.5
18	0.7	0.7	1.4	1.6	1.7	1.4	1.8	1.4	2.5	0.6	-1.2	-1.3	-1.2	-1.2	-1.2	-1.1	-1.1	-0.9	-1.5	-1.5	-1.5	-1.4	-1.4	-1.4
19	-1.4	-1.5	-1.5	-1.3	-1.2	-1.4	-1.5	-1.4	-1.2	-1.1	-1.2	-1.2	-1.2	-1.2	-1.2	-1.2	-1.2	-1.2	-1.1	-1.1	-1.1	-1.2	-1.2	-1.2
20	-1.3	-1.3	-1.3	-1.3	-1.3	-1.4	-1.4	-1.6	-1.6	-1.6	-1.9	-1.9	-1.9	-2.0	-2.0	-2.0	-1.9	-1.2	-0.9	-0.1	-0.1	0.1	-0.3	-0.3
21	-0.4	-0.6	-0.6	-0.6	-0.4	-0.7	-0.8	-0.8	-0.8	-0.9	-0.9	-1.0	-1.0	-1.1	-1.1	-1.0	-0.9	-0.5	1.0	1.7	1.6	1.8	2.1	2.7
22	2.0	2.2	1.0	0.4	0.8	0.6	1.2	2.0	2.8	0.6	-0.4	-0.5	-1.1	-1.1	-1.0	-0.8	-0.7	0.4	0.7	0.9	1.5	0.7	-0.4	-0.4
23	0.3	-0.4	0.2	0.4	-1.2	-1.2	-1.2	-1.1	-1.1	-1.3	-1.7	-1.9	-1.6	-1.8	-1.8	-1.7	-1.3	-0.9	-0.7	-0.8	-0.9	-1.0	-1.2	-1.1
24	-1.4	-1.6	-1.6	-1.3	-1.2	-1.0	-1.1	-1.1	-1.2	-1.3	-1.3	-1.4	-1.1	-1.2	-1.2	-1.2	-0.9	-0.3	0.2	0.1	0.3	0.2	0.1	0.2
25	-0.4	-0.5	-0.6	-0.5	-0.3	-0.1	0.4	0.5	-0.1	-0.9	-1.0	-1.0	-1.2	-1.1	-1.0	-0.9	-0.6	-0.7	-0.4	-0.5	0.2	-0.3	-0.5	-0.9
26	-1.1	-1.2	-1.3	-1.3	-1.4	-1.3	-1.4	-1.2	-1.4	-1.5	-1.4	-1.4	-1.8	-2.0	-2.0	-1.9	-1.5	-1.2	-1.0	-0.8	-0.3	0.9	3.1	3.7
27	4.5	4.3	4.5	4.5	0.2	2.0	2.6	3.9	0.4	-1.3	-2.1	-2.1	-2.4	-2.0	-1.1	-1.2	-1.1	-1.0	-0.9	-0.8	-0.9	-0.9	-1.0	-0.8
28	-0.8	-0.9	-0.8	-0.5	-0.4	-0.2	-0.5	-0.8	-0.8	-1.0	-1.1	-1.0	-1.1	-1.0	-1.0	-1.0	-1.0	-0.8	-0.3	-0.2	-0.2	-0.3	-0.2	0.1
29	0.9	1.0	1.9	2.3	1.7	2.7	1.7	2.1	0.7	-0.2	-0.7	-0.8	-0.9	-1.0	-1.0	-1.1	-1.0	-0.5	0.2	-0.6	-0.6	-0.5	-0.3	-0.5
30	-0.5	-0.8	-1.0	-0.8	-0.7	-0.8	-0.9	-0.9	-0.8	-0.8	-0.9	-0.8	-0.7	-0.7	-0.7	-0.6	-0.6	-0.5	-0.4	-0.2	-0.2	-0.3	-0.7	-1.0
HOURLY MEAN	1.1	1.0	1.1	1.1	0.8	0.7	0.6	0.6	0.2	-0.5	-1.0	-1.1	-1.2	-1.3	-1.2	-1.2	-1.1	-0.7	-0.2	0.3	0.5	0.5	0.6	0.8

MAXIMUM = 8.7 MINIMUM = -2.4 MEAN = 0.0 713 VALID OBSERVATIONS (99.0%)

DAILY STATISTICS

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
MAX	-0.5	2.8	3.0	1.3	1.0	4.4	5.8	3.6	3.9	5.1	8.0	4.0	3.2	0.5	3.1
MIN	-1.3	-1.7	-1.5	-1.0	-1.8	-1.3	-1.2	-1.4	-2.0	-1.2	-1.1	-1.3	-1.3	-1.3	-2.0
MEAN	-0.9	-0.6	0.5	-0.3	-0.7	0.6	1.6	-0.2	-0.6	1.0	1.5	1.3	0.4	-0.5	-0.5

DAY	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
MAX	4.3	8.7	2.5	-1.1	0.1	2.7	2.8	0.4	0.3	0.5	3.7	4.5	0.1	2.7	-0.2
MIN	-2.2	-1.1	-1.5	-1.5	-2.0	-1.1	-1.1	-1.9	-1.6	-1.2	-2.0	-2.4	-1.1	-1.1	-1.0
MEAN	1.4	2.7	-0.2	-1.3	-1.3	-0.1	0.5	-1.0	-0.8	-0.5	-0.9	0.3	-0.7	0.2	-0.7

MEAN MAXIMUM = 2.7 MEAN MINIMUM = -1.5

318 TO 155 FT DIFFERENTIAL TEMPERATURE (C/100M)
COOPER NUCLEAR STATION METEOROLOGICAL DATA
BROWNVILLE, NEBRASKA

DEC-1981

DAY	HOUR 0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	-0.6	-0.8	-1.0	-0.7	-0.7	-0.8	-0.8	-0.8	-0.8	-1.0	-M-	-M-	-M-	-M-	-M-	-M-	-1.4	-1.5	-1.5	-1.3	-1.1	-0.8	-0.7	-0.6
2	-0.2	0.6	0.3	0.5	0.7	0.1	0.2	0.3	0.6	-0.2	-0.8	-1.4	-1.5	-1.5	-1.4	-1.4	-1.4	-1.2	-0.2	-0.2	0.8	1.4	1.0	0.3
3	3.8	2.0	1.2	0.5	0.2	-0.0	0.2	0.6	-0.3	-0.7	-1.2	-1.6	-1.5	-1.5	-1.3	-1.1	-1.1	-1.0	-1.0	-1.0	-1.1	-1.0	-1.1	-1.2
4	-1.1	-1.2	-1.3	-1.2	-1.2	-1.2	-1.1	-1.3	-1.4	-1.2	-1.9	-2.2	-2.3	-1.5	-1.1	-1.0	-1.0	-0.4	0.8	0.9	2.9	3.1	3.7	3.5
5	0.9	0.5	-0.1	0.5	0.3	0.8	1.5	1.8	2.3	0.9	-M-	-M-	-M-	-M-	-M-	-M-	-M-	0.5	0.9	0.1	-0.1	0.0	-0.1	-0.1
6	0.4	0.4	0.6	-0.1	-0.1	0.2	-0.2	-0.3	-0.4	-0.6	-0.7	-1.0	-1.0	-1.0	-1.0	-0.8	-0.5	0.2	0.4	0.9	0.8	0.7	0.3	0.3
7	0.9	2.2	2.7	1.1	0.1	1.0	1.0	0.3	-0.6	-1.2	-1.4	-1.7	-1.2	-1.3	-1.7	-1.3	-1.3	-1.0	-0.7	-0.6	-1.1	-1.6	-1.5	-1.5
8	-1.3	-0.7	-0.3	-0.1	0.1	-0.3	-1.7	-0.8	-0.9	-1.0	-0.9	-0.8	-0.9	-0.9	-1.0	-0.9	-0.9	-0.6	0.3	2.3	3.2	4.2	5.4	2.9
9	3.7	1.7	1.0	0.7	-0.1	-0.6	-1.1	-1.2	-1.1	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-1.0	-0.8	-0.9	-0.3	-0.3	-0.1	-0.1	0.1
10	-0.3	-0.3	-0.4	-0.5	-0.8	-0.8	-1.0	-0.9	-1.0	-M-	-1.2	-1.1	-1.1	-1.1	-1.1	-1.0	-1.0	-0.8	-0.8	-0.9	-0.9	-0.8	-0.8	-0.6
11	-0.5	-0.6	-0.6	-0.6	-0.7	-0.8	-0.6	-0.5	-0.5	-0.8	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-0.9	-0.4	-0.1	-0.3	-0.1	-0.5	-0.7
12	-0.7	-0.6	-0.6	-0.8	-0.6	-0.5	-0.7	-0.7	-0.7	-0.7	-0.9	-0.9	-0.8	-0.9	-0.8	-0.6	-0.9	-0.8	-0.7	-0.6	-0.3	-0.2	-0.5	-0.4
13	-0.2	0.2	0.3	0.8	0.1	0.5	0.5	0.5	-0.4	-0.5	-0.9	-0.9	-0.9	-0.9	-0.9	-0.8	-0.7	-0.5	-0.6	-0.8	-0.6	-0.7	-0.6	-0.7
14	-1.1	-1.4	-1.3	-1.4	-1.5	-1.5	-1.6	-1.8	-1.9	-1.7	-1.2	-1.3	-1.3	-1.2	-1.5	-1.2	-1.1	-1.7	-0.6	-0.5	-0.6	-0.9	-1.0	-1.0
15	-1.1	-1.1	-1.0	-1.0	-0.9	-0.9	-0.8	-0.7	-0.6	-0.7	-0.7	-0.6	-0.7	-1.5	-2.1	-1.3	-0.8	-0.7	-0.9	-0.7	-0.7	-0.8	-1.0	-0.9
16	-0.9	-0.9	-0.9	-0.8	-0.7	-0.8	-0.9	-0.8	-1.0	-0.8	-0.8	-0.8	-0.8	-0.9	-1.0	-1.1	-1.0	-1.0	-1.1	-1.2	-1.5	-1.5	-1.7	-1.5
17	-1.2	-1.3	-0.9	-1.0	-0.9	-0.9	-0.9	-0.9	-1.1	-1.5	-1.8	-2.0	-2.3	-2.2	-2.1	-2.0	-1.8	-1.3	-0.7	-0.4	0.1	1.0	0.7	1.1
18	0.8	1.4	1.6	3.0	1.3	1.6	2.5	1.7	1.6	0.8	0.7	3.2	2.0	1.1	-0.4	-0.6	-0.8	0.1	1.3	2.0	2.2	2.9	2.6	2.9
19	7.0	7.6	9.1	11.0	12.5	13.7	10.9	12.9	13.4	11.0	8.6	3.0	0.0	-1.3	0.4	-0.0	1.2	1.4	1.6	1.4	2.2	2.5	3.1	2.1
20	2.3	3.9	4.0	1.7	1.3	1.3	-0.0	0.1	-0.0	-0.5	-0.7	-0.7	-0.8	-0.9	-0.9	-0.3	-0.8	-0.7	-0.7	-0.6	-0.6	-0.5	-0.4	-0.5
21	-0.7	-0.7	-0.6	-0.7	-0.7	-0.8	-0.8	-0.6	-0.6	-0.6	-0.7	-0.8	-0.9	-0.8	-1.0	-0.8	-0.7	-0.6	-0.6	-0.3	-0.5	-0.2	0.3	-0.1
22	-0.2	-0.0	0.3	-0.4	0.1	-0.7	-1.1	-1.1	-0.9	-1.1	-1.8	-1.5	-1.5	-1.5	-1.3	-1.2	-1.2	-1.1	-0.9	-0.9	-0.9	-0.9	-0.8	-0.6
23	0.2	0.8	1.0	1.4	1.8	1.4	1.0	0.6	0.8	0.2	-0.5	-0.7	-0.8	-0.8	-0.7	-0.6	-0.4	0.4	2.2	2.5	1.7	2.5	2.4	1.9
24	1.4	1.0	0.7	1.1	0.2	1.1	2.5	3.0	2.7	0.6	-0.1	-0.4	-0.7	-0.7	-0.7	-0.6	-0.3	0.2	1.3	2.0	2.1	2.7	0.5	-M-
25	-M-	1.7	2.1	0.7	0.5	0.6	1.8	2.2	3.6	1.9	1.0	-0.3	-0.5	-0.7	-0.8	-0.7	-0.7	0.4	0.5	-0.0	-0.1	-0.0	0.0	0.0
26	-0.0	0.3	0.3	0.1	0.7	0.9	1.0	0.4	-0.1	-1.3	-1.9	-2.1	-2.0	-1.7	-1.7	-2.0	-1.7	-1.0	-0.5	-0.5	0.3	0.3	0.2	-0.2
27	-0.5	0.3	0.5	0.5	2.6	3.6	4.9	7.1	5.8	3.5	0.2	0.1	-0.3	-0.6	-0.7	-1.0	-0.8	-0.8	-0.7	-0.6	-1.5	-1.2	-1.2	-1.3
28	-1.4	-1.5	-1.5	-1.6	-1.7	-1.4	-1.8	-1.8	-2.0	-2.0	-1.9	-1.7	-1.7	-2.3	-1.9	-1.9	-1.6	-0.8	0.5	1.1	2.3	3.5	5.2	4.9
29	5.4	7.2	7.6	5.9	6.2	6.4	4.0	2.4	1.7	1.0	0.9	0.5	0.4	-0.4	-0.4	-0.3	0.4	1.7	3.4	3.8	1.0	1.7	-0.4	-0.7
30	0.1	0.6	0.7	2.7	7.0	6.9	8.0	7.9	3.3	-0.2	-0.6	-0.6	-0.7	-0.7	-0.7	-0.6	-0.5	-0.5	-0.3	-0.3	0.0	0.2	-0.1	-0.1
31	-0.3	-0.1	-0.0	-1.6	-1.5	-1.4	-1.4	-1.4	-1.3	-1.4	-1.5	-1.5	-1.9	-1.9	-1.9	-1.7	-1.5	-1.1	-1.1	-1.1	-1.0	-1.1	-1.0	-0.9
HOURLY MEAN	0.5	0.7	0.8	0.6	0.8	0.9	0.8	0.8	0.6	0.0	-0.5	-0.7	-1.0	-1.1	-1.1	-1.0	-0.9	-0.5	-0.1	0.1	0.2	0.5	0.4	0.2

MAXIMUM = 13.7 MINIMUM = -2.3 MEAN = 0.1 721 VALID OBSERVATIONS (96.9%)

DAILY STATISTICS

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
MAX	-0.6	1.4	3.8	3.7	2.3	0.9	2.7	5.4	3.7	-0.3	-0.1	-0.2	0.8	-0.5	-0.6	-0.7
MIN	-1.5	-1.5	-1.6	-2.3	-0.1	-1.0	-1.7	-1.7	-1.2	-1.2	-1.0	-0.9	-0.9	-1.9	-2.1	-1.7
MEAN	-1.0	-0.2	-0.4	-0.4	0.6	-0.1	-0.4	0.2	-0.0	-0.8	-0.7	-0.7	-0.4	-1.3	-0.9	-1.0

DAY	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
MAX	1.1	3.2	13.7	4.0	0.3	0.3	2.5	3.0	3.6	1.0	7.1	5.2	7.6	8.0	-0.0
MIN	-2.3	-0.8	-1.3	-0.9	-1.0	-1.8	-0.8	-0.7	-0.8	-2.1	-1.5	-2.3	-0.7	-0.7	-1.9
MEAN	-1.0	1.5	5.6	0.2	-0.6	-0.9	0.8	0.9	0.6	-0.5	0.8	-0.6	2.5	1.3	-1.2

MEAN MAXIMUM = 2.6 MEAN MINIMUM = -1.3

PRECIPITATION (.01 INCH)
COOPER NUCLEAR STATION
BROWNVILLE, NEBRASKA

JUL-1981

DAY	HOUR 0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
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
2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8	0	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	0	0	0	0	0	0	0	0	14	33	0	0	0
9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	0	0	0	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15	1	27	15	25	[illegible]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	[illegible]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17	0	35	9	6	[illegible]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18	0	0	0	[illegible]	[illegible]	0	2	3	5	4	2	17	12	7	0	0	0	0	0	0	1	1	0	0
19	1	0	0	[illegible]	[illegible]	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	[illegible]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	9	1	0	0
21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22	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	0	0	20	45	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1	0	0	0	0	-M-
25	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	30	34	16	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27	4	9	4	0	9	30	23	4	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	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	0
29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-M-	-M-	0	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HOURLY MEAN	0	2	2	3	1	2	1	1	0	0	0	1	0	0	0	0	0	0	0	1	1	0	0	0

MAXIMUM = 45 MINIMUM = 0 TOTAL = 477.00 721 VALID OBSERVATIONS (96.9%)

DAILY STATISTICS

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
MAX	0	0	0	0	0	0	0	33	0	0	0	0	0	0	27	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUM	0	0	0	0	0	0	0	47	0	0	0	0	0	0	70	0

DAY	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
MAX	35	17	1	9	0	0	45	1	0	34	30	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUM	50	54	2	12	0	0	66	3	0	88	85	0	0	0	0

MEAN MAXIMUM = 7 MEAN MINIMUM = 0

PRECIPITATION (.01 INCH)
COOPER NUCLEAR STATION
BROWNVILLE, NEBRASKA

AUG-1981

DAY	HOUR 0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
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
2	35	21	12	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	73	43	22	6	1	22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	4	8	1	5	1	0	0	1	2	3	4	0	0	0	0	0	2	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0	0	0	0	12	10	1	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	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	32	53	19	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	18	42	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	18	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	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	0
29	0	0	0	0	0	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-
30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
HOURLY MEAN	1	1	1	3	3	2	0	0	1	0	0	0	1	0	0	0	1	2	1	0	0	0	0	0

MAXIMUM = 73 MINIMUM = 0 TOTAL = 487.00 725 VALID OBSERVATIONS (97.4%)

DAILY STATISTICS

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
MAX	0	35	0	0	73	8	0	3	0	0	0	0	12	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUM	0	71	0	0	167	31	0	3	0	0	0	0	23	0	0	0

DAY	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
MAX	0	0	0	0	0	0	53	1	42	18	1	0	0	0	1
MIN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUM	0	0	0	0	0	0	104	1	66	19	1	0	0	0	1

MEAN MAXIMUM = 8 MEAN MINIMUM = 0

PRECIPITATION (.01 INCH)
COOPER NUCLEAR STATION
BROWNVILLE, NEBRASKA

SEP-1981

DAY	HOUR 0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
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
2	0	0	0	0	0	0	0	0	0	0	0	0	-M-	-M-	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	-M-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	0	6	29	75	5	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	0	0	0	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	2	1	1	0	0	0	2	0	0	0	0	0	1	11	25	65
25	38	32	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-M-	-M-	0	0
30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HOURLY MEAN	1	1	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2

MAXIMUM = 75 MINIMUM = 0 TOTAL = 315.00 715 VALID OBSERVATIONS (99.3%)

DAILY STATISTICS

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
MAX	0	0	0	0	0	0	75	0	0	0	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUM	0	0	0	0	0	0	117	0	0	0	0	0	0	0	0

DAY	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
MAX	0	0	0	0	0	0	0	0	65	38	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUM	0	0	0	0	0	0	0	0	108	90	0	0	0	0	0

MEAN MAXIMUM = 6 MEAN MINIMUM = 0

PRECIPITATION (.01 INCH)
COOPER NUCLEAR STATION METEOROLOGICAL DATA
BROWNVILLE, NEBRASKA

OCT-1981

DAY	HOUR 0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
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
2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	3	0	2	0	14	41	14	15	14	5	4	0	0	0	0	1	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0	0	0	5	8	0	0	0	0	0	0	0	0	0	-M-
10	-M-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0
12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	0	0	0	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16	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	0	0	0	2	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30	0	0	0	0	0	0	-M-	-M-	-M-	-M-	-M-	-M-	-M-	0	0	0	0	0	1	1	0	5	15	14
31	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13
HOURLY MEAN	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	1

MAXIMUM = 41 MINIMUM = 0 TOTAL = 184.00 735 VALID OBSERVATIONS (98.8%)

DAILY STATISTICS

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
MAX	0	0	41	0	0	0	0	0	8	0	4	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUM	0	0	113	0	0	0	0	0	13	0	4	0	0	0	0	0

DAY	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
MAX	2	0	0	0	0	0	0	0	0	0	0	0	0	15	13
MIN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUM	3	0	0	0	0	0	0	0	0	0	0	0	0	36	15

MEAN MAXIMUM = 3 MEAN MINIMUM = 0

PRECIPITATION (.01 INCH)
COOPER NUCLEAR STATION METEOROLOGICAL DATA
BROWNVILLE, NEBRASKA

NOV-1981

DAY	HOUR 0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	28	9	2	11	6	12	35	17	1	5	10	0	4	3	0	0	0	0	0	0	0	0	1	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	6	4	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	0	0	0	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28	0	0	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	-M-	0
29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0	0	0	0	0	0	-M-	-M-	0	0	0	0	0	0	0	0	0
HOURLY MEAN	1	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

MAXIMUM = 35 MINIMUM = 0 TOTAL = 158.00 697 VALID OBSERVATIONS (96.8%)

DAILY STATISTICS

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
MAX	35	0	0	6	0	0	0	0	0	0	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUM	144	0	0	14	0	0	0	0	0	0	0	0	0	0	0

DAY	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
MAX	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

MEAN MAXIMUM = 1 MEAN MINIMUM = 0

PRECIPITATION (.01 INCH)
COOPER NUCLEAR STATION METEOROLOGICAL DATA
BROWNVILLE, NEBRASKA

DEC-1981

DAY	HOUR 0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
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
2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	0	0	0	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	1	2	1	2	1	1	1	3	4	5	3	1	1	1	0	0	0	0
17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	5	3	3	1
28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HOURLY MEAN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

MAXIMUM = 5 MINIMUM = 0 TOTAL = 43.00 744 VALID OBSERVATIONS (100.0%)

DAILY STATISTICS

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
MAX	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
MIN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	27

DAY	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
MAX	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUM	0	0	0	0	0	0	0	0	0	0	16	0	0	0	0

MEAN MAXIMUM = 0 MEAN MINIMUM = 0

APPENDIX B

JOINT FREQUENCY TABLES

Wind speed, wind direction, and 318-35 ft differential temperature data presented in Section A are categorized as shown on Page B-3. Joint frequency of occurrence of each wind speed and wind direction category for each wind level is computed, and the number of joint occurrences and the percent frequency of occurrence are shown. Joint frequency of occurrence of wind speed versus wind direction is shown across all atmospheric stability categories and for each atmospheric stability category individually. The percent frequency of occurrence is normalized to 100 percent on each table, i.e., the total in the right hand corner of the table is 100 percent. Row totals and column totals are shown in the right column and bottom row, respectively, of each table. The number of calm hours and the percentage of calm hours are shown in the first wind speed category of each table. The number of valid data pairs collected are shown in the lower right hand corner of each table.

Several abbreviations are used on the tables:

WDC = Wind Direction Category
WSC = Wind Speed Category
DTC = Differential Temperature Category

The numerals 1 and 2 refer to the 35-ft and 318-ft wind levels, respectively.

The notation "." indicates missing values. The number of missing data pairs is given in the upper left hand corner of each table (see Page B-6 where 37 wind speed - wind direction data pairs are missing for the period 1 July to 30 September 1981). The number of missing pairs due to only one parameter being missing is given in the left hand column and top row of each table (see Page B-6 where 2 occurrences of the 1-4 mph category did not have a corresponding wind direction and 1 occurrence of a north (N) wind direction did not have a corresponding windspeed value). The number of missing values are not used in the calculations and are only presented in the interest of completeness. Rows in which no observations occur are not shown in the tables.

CLASSIFICATION OF METEOROLOGICAL CATEGORIES USED IN JOINT FREQUENCY ANALYSES

WIND SPEED

Beaufort Wind Scale	Wind Speed (mph)
Calm	$V \leq *$
1	$* < V \leq 4$
2	$4 < V \leq 8$
3	$8 < V \leq 13$
4	$13 < V \leq 19$
5	$19 < V \leq 25$
6	$25 < V \leq 32$
7	$32 < V \leq 39$
8	$39 < V \leq 45$
9	$45 < V$

WIND DIRECTION

Wind Sector	Wind Direction (Degrees)
N	$348.75° < \theta \leq 11.25°$
NNE	$11.25° < \theta \leq 33.75°$
NE	$33.75° < \theta \leq 56.25°$
ENE	$56.25° < \theta \leq 78.75°$
E	$78.75° < \theta \leq 101.25°$
ESE	$101.25° < \theta \leq 123.75°$
SE	$123.75° < \theta \leq 146.25°$
SSE	$146.25° < \theta < 168.75°$
S	$168.75° < \theta < 191.25°$
SSW	$191.25° < \theta \leq 213.75°$
SW	$213.75° < \theta \leq 236.25°$
WSW	$236.25° < \theta \leq 258.75°$
W	$258.75° < \theta \leq 281.25°$
WNW	$281.25° < \theta \leq 303.75°$
NW	$303.75° < \theta \leq 326.25°$
NNW	$326.25° < \theta \leq 348.75°$

PASQUILL STABILITY

Category	Classification	ΔT (C/100 m)
A	Extremely unstable	$\Delta T \leq -1.9$
B	Moderately unstable	$-1.9 < \Delta T \leq -1.7$
C	Slightly unstable	$-1.7 < \Delta T \leq -1.5$
D	Neutral	$-1.5 < \Delta T \leq -0.5$
E	Slightly stable	$-0.5 < \Delta T \leq 1.5$
F	Moderately stable	$1.5 < \Delta T \leq 4.0$
G	Extremely stable	$4.0 < \Delta T$

Note: * means threshold speed of anemometer or wind vane, whichever is higher.

ARRANGEMENT OF JOINT FREQUENCY TABLES

ARRANGEMENT OF JOINT FREQUENCY TABLES (CONT.)

ECOLOGICAL ANALYSTS, INC.

COOPER NUCLEAR GENERATING STATION
JOINT FREQUENCY DISTRIBUTION DATA ANALYSIS
1 JULY 1981 TO 30 SEPTEMBER 1981
UPPER WIND SPEED VS. UPPER LEVEL WIND DIRECTION

TABLE OF WSC2 BY WDC2

WSC2 UPPER WIND SPEED CATEGORY WDC2 UPPER WIND DIRECTION CATEGORY

FREQUENCY PERCENT	.	N	NNE	NE	ENE	E	ESE	SE	SSE	TOTAL
.	37 .	1 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	. .
CALM	0 .	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	1 0.05	0 0.00	2 0.09
1-4	2 .	8 0.37	7 0.32	8 0.37	9 0.42	13 0.60	9 0.42	18 0.83	28 1.30	157 7.28
4-8	1 .	44 2.04	21 0.97	20 0.93	27 1.25	37 1.71	58 2.69	49 2.27	50 2.32	494 22.89
8-13	5 .	84 3.89	40 1.85	43 1.99	39 1.81	28 1.30	38 1.76	86 3.99	87 4.03	808 37.44
13-19	4 .	62 2.87	35 1.62	14 0.65	7 0.32	1 0.05	15 0.70	30 1.39	82 3.80	579 26.83
19-25	0 .	20 0.93	4 0.19	2 0.09	0 0.00	0 0.00	3 0.14	1 0.05	1 0.05	110 5.10
25-32	0 .	3 0.14	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	1 0.05	8 0.37
TOTAL	. .	221 10.24	107 4.96	87 4.03	82 3.80	79 3.66	123 5.70	185 8.57	249 11.54	2158 100.00

(CONTINUED)

ECOLOGICAL ANALYSTS, INC.

COOPER NUCLEAR GENERATING STATION
JOINT FREQUENCY DISTRIBUTION DATA ANALYSIS
1 JULY 1981 TO 30 SEPTEMBER 1981
UPPER WIND SPEED VS. UPPER LEVEL WIND DIRECTION

TABLE OF WSC2 BY WDC2

WSC2 UPPER WIND SPEED CATEGORY WDC2 UPPER WIND DIRECTION CATEGORY

FREQUENCY PERCENT	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
.	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	. .
CALM	0 0.00	0 0.00	0 0.00	0 0.00	1 0.05	0 0.00	0 0.00	0 0.00	2 0.09
1-4	13 0.60	7 0.32	6 0.28	8 0.37	5 0.23	6 0.28	4 0.19	8 0.37	157 7.28
4-8	31 1.44	14 0.65	24 1.11	21 0.97	24 1.11	17 0.79	17 0.79	40 1.85	494 22.89
8-13	88 4.08	76 3.52	52 2.41	36 1.67	10 0.46	8 0.37	27 1.25	66 3.06	808 37.44
13-19	133 6.16	81 3.75	49 2.27	23 1.07	1 0.05	3 0.14	15 0.70	28 1.30	579 26.83
19-25	12 0.56	24 1.11	22 1.02	10 0.46	1 0.05	1 0.05	1 0.05	8 0.37	110 5.10
25-32	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	4 0.19	8 0.37
TOTAL	277 12.84	202 9.36	153 7.09	98 4.54	42 1.95	35 1.62	64 2.97	154 7.14	2158 100.00

ECOLOGICAL ANALYSTS, INC.

COOPER NUCLEAR GENERATING STATION
JOINT FREQUENCY DISTRIBUTION DATA ANALYSIS
1 JULY 1981 TO 30 SEPTEMBER 1981
UPPER WIND SPEED VS. UPPER LEVEL WIND DIRECTION

TABLE OF WSC2 BY WDC2
CONTROLLING FOR DTC=EXTREMELY UNSTAB

WSC2 UPPER WIND SPEED CATEGORY WDC2 UPPER WIND DIRECTION CATEGORY

FREQUENCY PERCENT	.	N	NNE	NE	ENE	E	ESE	SE	SSE	TOTAL
.	3 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	. .
CALM	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 0.00
1-4	0 .	2 0.67	0 0.00	1 0.34	3 1.01	2 0.67	0 0.00	2 0.67	4 1.34	19 6.38
4-8	0 .	22 7.38	5 1.68	5 1.68	4 1.34	7 2.35	10 3.36	4 1.34	10 3.36	83 27.85
8-13	0 .	27 9.06	12 4.03	8 2.68	5 1.68	0 0.00	1 0.34	6 2.01	4 1.34	108 36.24
13-19	0 .	15 5.03	9 3.02	0 0.00	2 0.67	0 0.00	0 0.00	0 0.00	5 1.68	60 20.13
19-25	0 .	12 4.03	0 0.00	1 0.34	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	22 7.38
25-32	0 .	3 1.01	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	6 2.01
TOTAL	. .	81 27.18	26 8.72	15 5.03	14 4.70	9 3.02	11 3.69	12 4.03	23 7.72	298 100.00

(CONTINUED)

ECOLOGICAL ANALYSTS, INC.

COOPER NUCLEAR GENERATING STATION
JOINT FREQUENCY DISTRIBUTION DATA ANALYSIS
1 JULY 1981 TO 30 SEPTEMBER 1981
UPPER WIND SPEED VS. UPPER LEVEL WIND DIRECTION

TABLE OF WSC2 BY WDC2
CONTROLLING FOR DTC=EXTREMELY UNSTAB

WSC2 UPPER WIND SPEED CATEGORY WDC2 UPPER WIND DIRECTION CATEGORY

FREQUENCY PERCENT	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
.	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	. .
CALM	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 0.00
1-4	4 1.34	1 0.34	0 0.00	0 0.00	0 .	0 0.00	0 0.00	0 0.00	19 6.38
4-8	1 0.34	0 0.00	0 0.00	1 0.34	0 .	3 1.01	2 0.67	9 3.02	83 27.85
8-13	10 3.36	4 1.34	3 1.01	2 0.67	0 .	1 0.34	6 2.01	19 6.38	108 36.24
13-19	8 2.68	8 2.68	4 1.34	2 0.67	0 .	0 0.00	2 0.67	5 1.68	60 20.13
19-25	0 0.00	1 0.34	0 0.00	0 0.00	0 .	0 0.00	0 0.00	8 2.68	22 7.38
25-32	0 0.00	0 0.00	0 0.00	0 0.00	0 .	0 0.00	0 0.00	3 1.01	6 2.01
TOTAL	23 7.72	14 4.70	7 2.35	5 1.68	. .	4 1.34	10 3.36	44 14.77	298 100.00

ECOLOGICAL ANALYSTS, INC.

COOPER NUCLEAR GENERATING STATION
JOINT FREQUENCY DISTRIBUTION DATA ANALYSIS
1 JULY 1981 TO 30 SEPTEMBER 1981
UPPER WIND SPEED VS. UPPER LEVEL WIND DIRECTION

TABLE OF WSC2 BY WDC2
CONTROLLING FOR DTC=MODERATELY UNSTA

WSC2 UPPER WIND SPEED CATEGORY WDC2 UPPER WIND DIRECTION CATEGORY

FREQUENCY PERCENT	.	N	NNE	NE	ENE	E	ESE	SE	SSE	TOTAL
.	8 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	. .
CALM	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 0.00
1-4	0 .	1 0.55	1 0.55	2 1.10	1 0.55	1 0.55	2 1.10	2 1.10	4 2.20	17 9.34
4-8	0 .	3 1.65	3 1.65	1 0.55	2 1.10	3 1.65	4 2.20	4 2.20	7 3.85	43 23.63
8-13	0 .	7 3.85	2 1.10	2 1.10	4 2.20	0 0.00	0 0.00	8 4.40	6 3.30	65 35.71
13-19	0 .	4 2.20	5 2.75	1 0.55	0 0.00	0 0.00	0 0.00	1 0.55	0 0.00	43 23.63
19-25	0 .	2 1.10	1 0.55	1 0.55	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	13 7.14
25-32	0 .	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	1 0.55
TOTAL	. .	17 9.34	12 6.59	7 3.85	7 3.85	4 2.20	6 3.30	15 8.24	17 9.34	182 100.00

(CONTINUED)

ECOLOGICAL ANALYSTS, INC.

COOPER NUCLEAR GENERATING STATION
JOINT FREQUENCY DISTRIBUTION DATA ANALYSIS
1 JULY 1981 TO 30 SEPTEMBER 1981
UPPER WIND SPEED VS. UPPER LEVEL WIND DIRECTION

TABLE OF WSC2 BY WDC2
CONTROLLING FOR DTC=MODERATELY UNSTA

WSC2 UPPER WIND SPEED CATEGORY WDC2 UPPER WIND DIRECTION CATEGORY

FREQUENCY! PERCENT	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
.	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	. .
CALM	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 0.00
1-4	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	1 0.55	1 0.55	1 0.55	17 9.34
4-8	1 0.55	1 0 55	1 0.55	4 2.20	2 1.10	6 3.30	1 0.55	0 0.00	43 23.63
8-13	9 4.95	9 4.95	10 5.49	3 1.65	1 0.55	0 0.00	2 1.10	2 1.10	65 35.71
13-19	6 3.30	8 4.40	10 5.49	7 3.85	0 0.00	0 0.00	1 0.55	0 0.00	43 23.63
19-25	0 0.00	1 0.55	6 3.30	1 0.55	1 0.55	0 0.00	0 0.00	0 0.00	13 7.14
25-32	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	1 0.55	1 0.55
TOTAL	16 8.79	19 10.44	27 14.84	15 3.24	4 2.20	7 3.85	5 2.75	4 2.20	182 100.00

ECOLOGICAL ANALYSTS, INC.

COOPER NUCLEAR GENERATING STATION
JOINT FREQUENCY DISTRIBUTION DATA ANALYSIS
1 JULY 1981 TO 30 SEPTEMBER 1981
UPPER WIND SPEED VS. UPPER LEVEL WIND DIRECTION

TABLE OF WSC2 BY WDC2
CONTROLLING FOR DTC=SLIGHTLY UNSTABL

WSC2 UPPER WIND SPEED CATEGORY WDC2 UPPER WIND DIRECTION CATEGORY

FREQUENCY PERCENT	.	N	NNE	NE	ENE	E	ESE	SE	SSE	TOTAL
.	4 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	. .
CALM	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 0.00
1-4	0 .	0 0.00	1 0.59	0 0.00	0 0.00	1 0.59	0 0.00	0 0.00	3 1.78	10 5.92
4-8	0 .	1 0.59	2 1.18	2 1.18	5 2.96	3 1.78	4 2.37	2 1.18	3 1.78	40 23.67
8-13	0 .	1 0.59	0 0.00	2 1.18	1 0.59	0 0.00	4 2.37	9 5.33	10 5.92	65 38.46
13-19	0 .	6 3.55	2 1.18	0 0.00	0 0.00	0 0.00	4 2.37	1 0.59	4 2.37	45 26.63
19-25	0 .	2 1.18	1 0.59	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	9 5.33
25-32	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 0.00
TOTAL	. .	10 5.92	6 3.55	4 2.37	6 3.55	4 2.37	12 7.10	12 7.10	20 11.83	169 100.00

(CONTINUED)

ECOLOGICAL ANALYSTS, INC.

COOPER NUCLEAR GENERATING STATION
JOINT FREQUENCY DISTRIBUTION DATA ANALYSIS
1 JULY 1981 TO 30 SEPTEMBER 1981
UPPER WIND SPEED VS. UPPER LEVEL WIND DIRECTION

TABLE OF WSC2 BY WDC2
CONTROLLING FOR DTC=SLIGHTLY UNSTABL

WSC2 UPPER WIND SPEED CATEGORY WDC2 UPPER WIND DIRECTION CATEGORY

FREQUENCY PERCENT	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
.	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	. .
CALM	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 0.00
1-4	1 0.59	4 2.37	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	10 5.92
4-8	1 0.59	2 1.18	4 2.37	2 1.18	5 2.96	1 0.59	1 0.59	2 1.18	40 23.67
8-13	6 3.55	5 2.96	8 4.73	8 4.73	2 1.18	1 0.59	3 1.78	5 2.96	65 38.46
13-19	9 5.33	6 3.55	7 4.14	2 1.18	0 0.00	0 0.00	1 0.59	3 1.78	45 26.63
19-25	0 0.00	0 0.00	4 2.37	2 1.18	0 0.00	0 0.00	0 0.00	0 0.00	9 5.33
25-32	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 0.00
TOTAL	17 10.06	17 10.06	23 13.61	14 8.28	7 4.14	2 1.18	5 2.96	10 5.92	169 100.00

ECOLOGICAL ANALYSTS, INC.

COOPER NUCLEAR GENERATING STATION
JOINT FREQUENCY DISTRIBUTION DATA ANALYSIS
1 JULY 1981 TO 30 SEPTEMBER 1981
UPPER WIND SPEED VS. UPPER LEVEL WIND DIRECTION

TABLE OF WSC2 BY WDC2
CONTROLLING FOR DTC=NEUTRAL

WSC2 UPPER WIND SPEED CATEGORY WDC2 UPPER WIND DIRECTION CATEGORY

FREQUENCY PERCENT	.	N	NNE	NE	ENE	E	ESE	SE	SSE	TOTAL
.	12 .	1 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	. .
CALM	0 .	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	1 0.16	0 0.00	1 0.16
1-4	0 .	2 0.32	2 0.32	1 0.16	2 0.32	1 0.16	4 0.64	4 0.64	3 0.48	33 5.30
4-8	0 .	4 0.64	6 0.96	8 1.28	6 0.96	9 1.44	16 2.57	12 1.93	12 1.93	124 19.90
8-13	2 .	26 4.17	14 2.25	22 3.53	19 3.05	15 2.41	16 2.57	27 4.33	32 5.14	264 42.38
13-19	4 .	26 4.17	13 2.09	7 1.12	4 0.64	1 0.16	6 0.96	8 1.28	22 3.53	176 28.25
19-25	0 .	4 0.64	1 0.16	0 0.00	0 0.00	0 0.00	0 0.00	1 0.16	0 0.00	24 3.85
25-32	0 .	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	1 0.16	1 0.16
TOTAL	. .	62 9.95	36 5.78	38 6.10	31 4.98	26 4.17	42 6.74	53 8.51	70 11.24	623 100.00

(CONTINUED)

ECOLOGICAL ANALYSTS, INC.

COOPER NUCLEAR GENERATING STATION
JOINT FREQUENCY DISTRIBUTION DATA ANALYSIS
1 JULY 1981 TO 30 SEPTEMBER 1981
UPPER WIND SPEED VS. UPPER LEVEL WIND DIRECTION

TABLE OF WSC2 BY WDC2
CONTROLLING FOR DTC=NEUTRAL

WSC2 UPPER WIND SPEED CATEGORY WDC2 UPPER WIND DIRECTION CATEGORY

FREQUENCY! PERCENT	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
.	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	. .
CALM	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	1 0.16
1-4	3 0.48	1 0.16	3 0.48	2 0.32	0 0.00	1 0.16	1 0.16	3 0.48	33 5.30
4-8	16 2.57	5 0.80	9 1.44	3 0.48	5 0.80	2 0.32	3 0.48	8 1.28	124 19.90
8-13	23 3.69	17 2.73	15 2.41	12 1.93	3 0.48	4 0.64	7 1.12	12 1.93	264 42.38
13-19	46 7.38	20 3.21	6 0.96	2 0.32	0 0.00	2 0.32	2 0.32	11 1.77	176 28.25
19-25	3 0.48	7 1.12	5 0.80	2 0.32	0 0.00	1 0.16	0 0.00	0 0.00	24 3.85
25-32	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	1 0.16
TOTAL	91 14.61	50 8.03	38 6.10	21 3.37	8 1.28	10 1.61	13 2.09	34 5.46	623 100.00

ECOLOGICAL ANALYSTS, INC.

COOPER NUCLEAR GENERATING STATION
JOINT FREQUENCY DISTRIBUTION DATA ANALYSIS
1 JULY 1981 TO 30 SEPTEMBER 1981
UPPER WIND SPEED VS. UPPER LEVEL WIND DIRECTION

TABLE OF WSC2 BY WDC2
CONTROLLING FOR DTC=SLIGHTLY STABLE

WSC2 UPPER WIND SPEED CATEGORY WDC2 UPPER WIND DIRECTION CATEGORY

FREQUENCY PERCENT	.	N	NNE	NE	ENE	E	ESE	SE	SSE	TOTAL
.	8 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	. .
CALM	0 .	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	1 0.17
1-4	0 .	1 0.17	2 0.34	2 0.34	2 0.34	5 0.85	1 0.17	6 1.02	7 1.19	38 6.46
4-8	1 .	5 0.85	2 0.34	3 0.51	6 1.02	8 1.36	19 3.23	21 3.57	12 2.04	114 19.39
8-13	1 .	13 2.21	6 1.02	7 1.19	10 1.70	10 1.70	13 2.21	32 5.44	21 3.57	198 33.67
13-19	0 .	10 1.70	6 1.02	6 1.02	1 0.17	0 0.00	5 0.85	20 3.40	42 7.14	202 34.35
19-25	0 .	0 0.00	1 0.17	0 0.00	0 0.00	0 0.00	3 0.51	0 0.00	1 0.17	35 5.95
25-32	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 0.00
TOTAL	. .	29 4.93	17 2.89	18 3.06	19 3.23	23 3.91	41 6.97	79 13.44	83 14.12	588 100.00

(CONTINUED)

ECOLOGICAL ANALYSTS, INC.

COOPER NUCLEAR GENERATING STATION
JOINT FREQUENCY DISTRIBUTION DATA ANALYSIS
1 JULY 1981 TO 30 SEPTEMBER 1981
UPPER WIND SPEED VS. UPPER LEVEL WIND DIRECTION

TABLE OF WSC2 BY WDC2
CONTROLLING FOR DTC=SLIGHTLY STABLE

WSC2 UPPER WIND SPEED CATEGORY WDC2 UPPER WIND DIRECTION CATEGORY

FREQUENCY PERCENT	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
.	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	. .
CALM	0 0.00	0 0.00	0 0.00	0 0.00	1 0.17	0 0.00	0 0.00	0 0.00	1 0.17
1-4	2 0.34	0 0.00	2 0.34	2 0.34	3 0.51	1 0.17	1 0.17	1 0.17	38 6.46
4-8	4 0.68	4 0.68	7 1.19	4 0.68	3 0.51	0 0.00	3 0.51	13 2.21	114 19.39
8-13	26 4.42	22 3.74	8 1.36	4 0.68	3 0.51	0 0.00	6 1.02	17 2.89	198 33.67
13-19	53 9.01	32 5.44	10 1.70	3 0.51	0 0.00	1 0.17	7 1.19	6 1.02	202 34.35
19-25	8 1.36	15 2.55	4 0.68	2 0.34	0 0.00	0 0.00	1 0.17	0 0.00	35 5.95
25-32	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 0.00
TOTAL	93 15.82	73 12.41	31 5.27	15 2.55	10 1.70	2 0.34	18 3.06	37 6.29	588 100.00

ECOLOGICAL ANALYSTS, INC.

COOPER NUCLEAR GENERATING STATION
JOINT FREQUENCY DISTRIBUTION DATA ANALYSIS
1 JULY 1981 TO 30 SEPTEMBER 1981
UPPER WIND SPEED VS. UPPER LEVEL WIND DIRECTION

TABLE OF WSC2 BY WDC2
CONTROLLING FOR DTC=MODERATELY STABL

WSC2 UPPER WIND SPEED CATEGORY WDC2 UPPER WIND DIRECTION CATEGORY

FREQUENCY PERCENT	.	N	NNE	NE	ENE	E	ESE	SE	SSE	TOTAL
.	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	. .
CALM	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 0.00
1-4	0 .	0 0.00	1 0.55	0 .	1 0.55	0 0.00	0 0.00	2 1.09	3 1.64	16 8.74
4-8	0 .	7 3.83	1 0.55	0 .	3 1.64	6 3.28	5 2.73	3 1.64	5 2.73	55 30.05
8-13	0 .	5 2.73	1 0.55	0 .	0 0.00	2 1.09	2 1.09	4 2.19	8 4.37	63 34.43
13-19	0 .	1 0.55	0 0.00	0 .	0 0.00	0 0.00	0 0.00	0 0.00	6 3.28	44 24.04
19-25	0 .	0 0.00	0 0.00	0 .	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	5 2.73
25-32	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 0.00
TOTAL	. .	13 7.10	3 1.64	. .	4 2.19	8 4.37	7 3.83	9 4.92	22 12.02	183 100.00

(CONTINUED)

ECOLOGICAL ANALYSTS, INC.

COOPER NUCLEAR GENERATING STATION
JOINT FREQUENCY DISTRIBUTION DATA ANALYSIS
1 JULY 1981 TO 30 SEPTEMBER 1981
UPPER WIND SPEED VS. UPPER LEVEL WIND DIRECTION

TABLE OF WSC2 BY WDC2
CONTROLLING FOR DTC=MODERATELY STABL

WSC2 UPPER WIND SPEED CATEGORY WDC2 UPPER WIND DIRECTION CATEGORY

FREQUENCY PERCENT	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
.	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	. .
CALM	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 0.00
1-4	1 0.55	1 0.55	0 0.00	2 1.09	1 0.55	3 1.64	0 0.00	1 0.55	16 8.74
4-8	3 1.64	1 0.55	3 1.64	3 1.64	2 1.09	3 1.64	5 2.73	5 2.73	55 30.05
8-13	7 3.83	10 5.46	8 4.37	7 3.83	1 0.55	0 0.00	0 0.00	8 4.37	63 34.43
13-19	9 4.92	7 3.83	8 4.37	7 3.83	1 0.55	0 0.00	2 1.09	3 1.64	44 24.04
19-25	1 0.55	0 0.00	2 1.09	2 1.09	0 0.00	0 0.00	0 0.00	0 0.00	5 2.73
25-32	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 0.00
TOTAL	21 11.48	19 10.38	21 11.48	21 11.48	5 2.73	6 3.28	7 3.83	17 9.29	183 100.00

ECOLOGICAL ANALYSTS, INC.

COOPER NUCLEAR GENERATING STATION
JOINT FREQUENCY DISTRIBUTION DATA ANALYSIS
1 JULY 1981 TO 30 SEPTEMBER 1981
UPPER WIND SPEED VS. UPPER LEVEL WIND DIRECTION

TABLE OF WSC2 BY WDC2
CONTROLLING FOR DTC=EXTREMELY STABLE

WSC2 UPPER WIND SPEED CATEGORY WDC2 UPPER WIND DIRECTION CATEGORY

FREQUENCY PERCENT	.	N	NNE	NE	ENE	E	ESE	SE	SSE	TOTAL
.	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	. .
CALM	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 0.00
1-4	2 .	1 1.27	0 0.00	2 2.53	0 0.00	3 3.80	2 2.53	1 1.27	4 5.06	18 22.78
4-8	0 .	0 0.00	1 1.27	1 1.27	1 1.27	1 1.27	0 0.00	3 3.80	1 1.27	26 32.91
8-13	2 .	1 1.27	3 3.80	1 1.27	0 0.00	0 0.00	0 0.00	0 0.00	4 5.06	30 37.97
13-19	0 .	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	3 3.80
19-25	0 .	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	2 2.53
25-32	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 0.00
TOTAL	. .	2 2.53	4 5.06	4 5.06	1 1.27	4 5.06	2 2.53	4 5.06	9 11.39	79 100.00

(CONTINUED)

ECOLOGICAL ANALYSTS, INC.

COOPER NUCLEAR GENERATING STATION
JOINT FREQUENCY DISTRIBUTION DATA ANALYSIS
1 JULY 1981 TO 30 SEPTEMBER 1981
UPPER WIND SPEED VS. UPPER LEVEL WIND DIRECTION

TABLE OF WSC2 BY WDC2
CONTROLLING FOR DTC=EXTREMELY STABLE

WSC2 UPPER WIND SPEED CATEGORY WDC2 UPPER WIND DIRECTION CATEGORY

FREQUENCY PERCENT	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
.	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	. .
CALM	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 0.00
1-4	0 0.00	0 0.00	1 1.27	1 1.27	1 1.27	0 0.00	1 1.27	1 1.27	18 22.78
4-8	5 6.33	0 0.00	0 0.00	3 3.80	7 8.86	2 2.53	1 1.27	0 0.00	26 32.91
8-13	5 6.33	9 11.39	0 0.00	0 0.00	0 0.00	2 2.53	3 3.80	2 2.53	30 37.97
13-19	0 0.00	0 0.00	3 3.80	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	3 3.80
19-25	0 0.00	0 0.00	1 1.27	1 1.27	0 0.00	0 0.00	0 0.00	0 0.00	2 2.53
25-32	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 0.00
TOTAL	10 12.66	9 11.39	5 6.33	5 6.33	8 10.13	4 5.06	5 6.33	3 3.80	79 100.00

ECOLOGICAL ANALYSTS, INC.
COOPER NUCLEAR STATION DATA ANALYSIS
JOINT FREQUENCY OF OCCURRENCE
318 FOOT WIND SPEED VS. WIND DIRECTION ANALYSIS
OCTOBER - DECEMBER 1981
WIND DIRECTION BY WIND SPEED

TABLE OF WDC2 BY WSC2

WDC2 WSC2

FREQUENCY PERCENT	.	CALM	1-4	4-8	8-13	13-19	19-25	25-32	32-39	TOTAL
.	80	0	0	0	3	7	2	0	0	.
	.	.	.	.	.	.	.	.	.	.
N	0	0	5	16	44	41	45	15	7	173
	.	0.00	0.24	0.77	2.11	1.97	2.16	0.72	0.34	8.31
NNE	0	1	9	29	23	33	34	8	0	137
	.	0.05	0.43	1.39	1.11	1.59	1.63	0.38	0.00	6.58
NE	0	0	7	17	12	12	7	2	0	57
	.	0.00	0.34	0.82	0.58	0.58	0.34	0.10	0.00	2.74
ENE	0	0	3	19	15	2	3	1	0	43
	.	0.00	0.14	0.91	0.72	0.10	0.14	0.05	0.00	2.07
E	0	0	3	17	18	2	5	0	0	45
	.	0.00	0.14	0.82	0.86	0.10	0.24	0.00	0.00	2.16
ESE	0	0	12	26	32	8	2	5	0	85
	.	0.00	0.58	1.25	1.54	0.38	0.10	0.24	0.00	4.08
SE	0	2	13	41	40	44	20	1	0	161
	.	0.10	0.62	1.97	1.92	2.11	0.96	0.05	0.00	7.74
SSE	0	0	17	37	55	100	42	0	0	251
	.	0.00	0.82	1.78	2.64	4.81	2.02	0.00	0.00	12.06
TOTAL	.	13	155	351	498	576	383	88	17	2081
	.	0.62	7.45	16.87	23.93	27.68	18.40	4.23	0.82	100.00

(CONTINUED)

ECOLOGICAL ANALYSTS, INC.
COOPER NUCLEAR STATION DATA ANALYSIS
JOINT FREQUENCY OF OCCURRENCE
318 FOOT WIND SPEED VS. WIND DIRECTION ANALYSIS
OCTOBER - DECEMBER 1981
WIND DIRECTION BY WIND SPEED

TABLE OF WDC2 BY WSC2

WDC2	WSC2									
FREQUENCY PERCENT	.	CALM	1-4	4-8	8-13	13-19	19-25	25-32	32-39	TOTAL
S	0 .	3 0.14	26 1.25	30 1.44	58 2.79	80 3.84	62 2.98	12 0.58	0 0.00	271 13.02
SSW	0 .	0 0.00	6 0.29	16 0.77	40 1.92	62 2.98	45 2.16	2 0.10	0 0.00	171 8.22
SW	0 .	0 0.00	8 0.38	13 0.62	22 1.06	42 2.02	29 1.39	1 0.05	0 0.00	115 5.53
WSW	0 .	0 0.00	9 0.43	20 0.96	29 1.39	24 1.15	4 0.19	0 0.00	0 0.00	86 4.13
W	0 .	3 0.14	10 0.48	19 0.91	8 0.38	8 0.38	7 0.34	0 0.00	0 0.00	55 2.64
WNW	0 .	2 0.10	8 0.38	17 0.82	29 1.39	16 0.77	4 0.19	1 0.05	0 0.00	77 3.70
NW	0 .	1 0.05	9 0.43	15 0.72	36 1.73	33 1.59	28 1.35	21 1.01	6 0.29	149 7.16
NNW	0 .	1 0.05	10 0.48	19 0.91	37 1.78	69 3.32	46 2.21	19 0.91	4 0.19	205 9.85
TOTAL	. .	13 0.62	155 7.45	351 16.87	498 23.93	576 27.68	383 18.40	88 4.23	17 0.82	2081 100.00

ECOLOGICAL ANALYSTS, INC.
COOPER NUCLEAR STATION DATA ANALYSIS
JOINT FREQUENCY OF OCCURRENCE
318 FOOT WIND SPEED VS. WIND DIRECTION ANALYSIS
OCTOBER - DECEMBER 1981
WIND DIRECTION BY WIND SPEED BY STABILITY

TABLE OF WDC2 BY WSC2
CONTROLLING FOR DTC=EXTREMELY UNSTAB

WDC2 WSC2

FREQUENCY PERCENT	.	CALM	1-4	4-8	8-13	13-19	19-25	25-32	32-39	TOTAL
.	11 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	. .
N	0 .	0 .	1 1.04	4 4.17	9 9.38	7 7.29	7 7.29	1 1.04	0 0.00	29 30.21
NNE	0 .	0 .	0 0.00	5 5.21	5 5.21	4 4.17	0 0.00	0 0.00	0 0.00	14 14.58
NE	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 0.00
ENE	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 0.00
E	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 0.00
ESE	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 0.00
SE	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 0.00
SSE	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 0.00
TOTAL	. .	. .	3 3.13	10 10.42	26 27.08	28 29.17	18 18.75	9 9.38	2 2.08	96 100.00

(CONTINUED)

ECOLOGICAL ANALYSTS, INC.
COOPER NUCLEAR STATION DATA ANALYSIS
JOINT FREQUENCY OF OCCURRENCE
318 FOOT WIND SPEED VS. WIND DIRECTION ANALYSIS
OCTOBER - DECEMBER 1981
WIND DIRECTION BY WIND SPEED BY STABILITY

TABLE OF WDC2 BY WSC2
CONTROLLING FOR DTC=EXTREMELY UNSTAB

WDC2 WSC2

FREQUENCY PERCENT	.	CALM	1-4	4-8	8-13	13-19	19-25	25-32	32-39	TOTAL
S	0	0	1	0	0	0	0	0	0	1
	.	.	1.04	0.00	0.00	0.00	0.00	0.00	0.00	1.04
SSW	0	0	0	0	0	0	1	0	0	1
	.	.	0.00	0.00	0.00	0.00	1.04	0.00	0.00	1.04
SW	0	0	0	0	0	0	0	0	0	0
	.	.	.	.	.	.	.	.	.	0.00
WSW	0	0	0	0	0	0	0	0	0	0
	.	.	.	.	.	.	.	.	.	0.00
W	0	0	0	0	1	0	0	0	0	1
	.	.	0.00	0.00	1.04	0.00	0.00	0.00	0.00	1.04
WNW	0	0	0	0	1	0	0	0	0	1
	.	.	0.00	0.00	1.04	0.00	0.00	0.00	0.00	1.04
NW	0	0	0	1	6	5	5	5	1	23
	.	.	0.00	1.04	6.25	5.21	5.21	5.21	1.04	23.96
NNW	0	0	1	0	4	12	5	3	1	26
	.	.	1.04	0.00	4.17	12.50	5.21	3.13	1.04	27.08
TOTAL	.	.	3	10	26	28	18	9	2	96
	.	.	3.13	10.42	27.08	29.17	18.75	9.38	2.08	100.00

ECOLOGICAL ANALYSTS, INC.
COOPER NUCLEAR STATION DATA ANALYSIS
JOINT FREQUENCY OF OCCURRENCE
318 FOOT WIND SPEED VS. WIND DIRECTION ANALYSIS
OCTOBER - DECEMBER 1981
WIND DIRECTION BY WIND SPEED BY STABILITY

TABLE OF WDC2 BY WSC2
CONTROLLING FOR DTC=MODERATELY UNSTA

WDC2 WSC2

FREQUENCY PERCENT	.	CALM	1-4	4-8	8-13	13-19	19-25	25-32	32-39	TOTAL
.	3 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	. .
N	0 .	0 .	1 1.05	2 2.11	3 3.16	5 5.26	10 10.53	4 4.21	0 0.00	25 26.32
NNE	0 .	0 .	0 0.00	5 5.26	1 1.05	5 5.26	2 2.11	1 1.05	0 0.00	14 14.74
NE	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 0.00
ENE	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 0.00
E	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 0.00
ESE	0 .	0 .	0 0.00	1 1.05	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	1 1.05
SE	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 0.00
SSE	0 .	0 .	0 0.00	0 0.00	2 2.11	0 0.00	0 0.00	0 0.00	0 0.00	2 2.11
TOTAL	. .	. .	2 2.11	14 14.74	20 21.05	19 20.00	29 30.53	8 8.42	3 3.16	95 100.00

(CONTINUED)

ECOLOGICAL ANALYSTS, INC.
COOPER NUCLEAR STATION DATA ANALYSIS
JOINT FREQUENCY OF OCCURRENCE
318 FOOT WIND SPEED VS. WIND DIRECTION ANALYSIS
OCTOBER - DECEMBER 1981
WIND DIRECTION BY WIND SPEED BY STABILITY

TABLE OF WDC2 BY WSC2
CONTROLLING FOR DTC=MODERATELY UNSTA

WDC2 WSC2

FREQUENCY PERCENT	.	CALM	1-4	4-8	8-13	13-19	19-25	25-32	32-39	TOTAL
S	0 .	0 .	0 0.00	0 0.00	0 0.00	4 4.21	4 4.21	0 0.00	0 0.00	8 8.42
SSW	0 .	0 .	0 0.00	0 0.00	1 1.05	0 0.00	2 2.11	0 0.00	0 0.00	3 3.16
SW	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 0.00
WSW	0 .	0 .	1 1.05	0 0.00	0 0.00	2 2.11	1 1.05	0 0.00	0 0.00	4 4.21
W	0 .	0 .	0 0.00	0 0.00	0 0.00	0 0.00	1 1.05	0 0.00	0 0.00	1 1.05
WNW	0 .	0 .	0 0.00	2 2.11	5 5.26	0 0.00	0 0.00	1 1.05	0 0.00	8 8.42
NW	0 .	0 .	0 0.00	1 1.05	6 6.32	0 0.00	3 3.16	0 0.00	2 2.11	12 12.63
NNW	0 .	0 .	0 0.00	3 3.16	2 2.11	3 3.16	6 6.32	2 2.11	1 1.05	17 17.89
TOTAL	. .	. .	2 2.11	14 14.74	20 21.05	19 20.00	29 30.53	8 8.42	3 3.16	95 100.00

ECOLOGICAL ANALYSTS, INC.
COOPER NUCLEAR STATION DATA ANALYSIS
JOINT FREQUENCY OF OCCURRENCE
318 FOOT WIND SPEED VS. WIND DIRECTION ANALYSIS
OCTOBER - DECEMBER 1981
WIND DIRECTION BY WIND SPEED BY STABILITY

TABLE OF WDC2 BY WSC2
CONTROLLING FOR DTC=SLIGHTLY UNSTABL

WDC2 WSC2

FREQUENCY PERCENT	.	CALM	1-4	4-8	8-13	13-19	19-25	25-32	32-39	TOTAL
.	7 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	. .
N	0 .	0 .	1 0.59	2 1.18	3 1.76	3 1.76	8 4.71	7 4.12	5 2.94	29 17.06
NNE	0 .	0 .	2 1.18	1 0.59	2 1.18	4 2.35	5 2.94	3 1.76	0 0.00	17 10.00
NE	0 .	0 .	1 0.59	2 1.18	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	3 1.76
ENE	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 0.00
E	0 .	0 .	1 0.59	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	1 0.59
ESE	0 .	0 .	2 1.18	3 1.76	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	5 2.94
SE	0 .	0 .	5 2.94	2 1.18	2 1.18	3 1.76	0 0.00	0 0.00	0 0.00	12 7.06
SSE	0 .	0 .	1 0.59	1 0.59	8 4.71	2 1.18	0 0.00	0 0.00	0 0.00	12 7.06
TOTAL	. .	. .	14 8.24	21 12.35	36 21.18	40 23.53	33 19.41	20 11.76	6 3.53	170 100.00

(CONTINUED)

ECOLOGICAL ANALYSTS, INC.
COOPER NUCLEAR STATION DATA ANALYSIS
JOINT FREQUENCY OF OCCURRENCE
318 FOOT WIND SPEED VS. WIND DIRECTION ANALYSIS
OCTOBER - DECEMBER 1981
WIND DIRECTION BY WIND SPEED BY STABILITY

TABLE OF WDC2 BY WSC2
CONTROLLING FOR DTC=SLIGHTLY UNSTABL

WDC2 WSC2

FREQUENCY PERCENT	.	CALM	1-4	4-8	8-13	13-19	19-25	25-32	32-39	TOTAL
S	0 .	0 .	0 0.00	2 1.18	8 4.71	4 2.35	2 1.18	0 0.00	0 0.00	16 9.41
SSW	0 .	0 .	0 0.00	2 1.18	5 2.94	7 4.12	2 1.18	0 0.00	0 0.00	16 9.41
SW	0 .	0 .	1 0.59	0 0.00	1 0.59	2 1.18	2 1.18	0 0.00	0 0.00	6 3.53
WSW	0 .	0 .	0 0.00	0 0.00	0 0.00	2 1.18	0 0.00	0 0.00	0 0.00	2 1.18
W	0 .	0 .	0 0.00	0 0.00	1 0.59	1 0.59	0 0.00	0 0.00	0 0.00	2 1.18
WNW	0 .	0 .	0 0.00	2 1.18	4 2.35	1 0.59	1 0.59	0 0.00	0 0.00	8 4.71
NW	0 .	0 .	0 0.00	4 2.35	1 0.59	3 1.76	2 1.18	3 1.76	0 0.00	13 7.65
NNW	0 .	0 .	0 0.00	0 0.00	1 0.59	8 4.71	11 6.47	7 4.12	1 0.59	28 16.47
TOTAL	. .	. .	14 8.24	21 12.35	36 21.18	40 23.53	33 19.41	20 11.76	6 3.53	170 100.00

ECOLOGICAL ANALYSTS, INC.
COOPER NUCLEAR STATION DATA ANALYSIS
JOINT FREQUENCY OF OCCURRENCE
318 FOOT WIND SPEED VS. WIND DIRECTION ANALYSIS
OCTOBER - DECEMBER 1981
WIND DIRECTION BY WIND SPEED BY STABILITY

TABLE OF WDC2 BY WSC2
CONTROLLING FOR DTC=NEUTRAL

WDC2 WSC2

FREQUENCY PERCENT	.	CALM	1-4	4-8	8-13	13-19	19-25	25-32	32-39	TOTAL
.	26 .	0 .	0 .	0 .	3 .	6 .	0 .	0 .	0 .	. .
N	0 .	0 0.00	0 0.00	5 0.53	23 2.45	24 2.56	20 2.13	3 0.32	2 0.21	77 8.20
NNE	0 .	0 0.00	4 0.43	8 0.85	11 1.17	19 2.02	27 2.88	4 0.43	0 0.00	73 7.77
NE	0 .	0 0.00	5 0.53	8 0.85	8 0.85	5 0.53	7 0.75	2 0.21	0 0.00	35 3.73
ENE	0 .	0 0.00	1 0.11	13 1.38	7 0.75	1 0.11	3 0.32	1 0.11	0 0.00	26 2.77
E	0 .	0 0.00	1 0.11	10 1.06	14 1.49	2 0.21	5 0.53	0 0.00	0 0.00	32 3.41
ESE	0 .	0 0.00	8 0.85	16 1.70	22 2.34	8 0.85	2 0.21	5 0.53	0 0.00	61 6.50
SE	0 .	1 0.11	6 0.64	26 2.77	21 2.24	18 1.92	18 1.92	1 0.11	0 0.00	91 9.69
SSE	0 .	0 0.00	7 0.75	25 2.66	24 2.56	55 5.86	25 2.66	0 0.00	0 0.00	136 14.48
TOTAL	. .	5 0.53	70 7.45	164 17.47	208 22.15	236 25.13	200 21.30	50 5.32	6 0.64	939 100.00

(CONTINUED)

ECOLOGICAL ANALYSTS, INC.
COOPER NUCLEAR STATION DATA ANALYSIS
JOINT FREQUENCY OF OCCURRENCE
318 FOOT WIND SPEED VS. WIND DIRECTION ANALYSIS
OCTOBER - DECEMBER 1981
WIND DIRECTION BY WIND SPEED BY STABILITY

TABLE OF WDC2 BY WSC2
CONTROLLING FOR DTC=NEUTRAL

WDC2 WSC2

FREQUENCY PERCENT	.	CALM	1-4	4-8	8-13	13-19	19-25	25-32	32-39	TOTAL
S	0	2	13	15	14	14	30	11	0	99
	.	0.21	1.38	1.60	1.49	1.49	3.19	1.17	0.00	10.54
SSW	0	0	3	7	15	18	20	2	0	65
	.	0.00	0.32	0.75	1.60	1.92	2.13	0.21	0.00	6.92
SW	0	0	3	3	11	15	6	1	0	39
	.	0.00	0.32	0.32	1.17	1.60	0.64	0.11	0.00	4.15
WSW	0	0	1	7	9	3	0	0	0	20
	.	0.00	0.11	0.75	0.96	0.32	0.00	0.00	0.00	2.13
W	0	2	7	5	1	0	0	0	0	15
	.	0.21	0.75	0.53	0.11	0.00	0.00	0.00	0.00	1.60
WNW	0	0	5	8	5	6	3	0	0	27
	.	0.00	0.53	0.85	0.53	0.64	0.32	0.00	0.00	2.88
NW	0	0	5	4	11	13	13	13	3	62
	.	0.00	0.53	0.43	1.17	1.38	1.38	1.38	0.32	6.60
NNW	0	0	1	4	12	35	21	7	1	81
	.	0.00	0.11	0.43	1.28	3.73	2.24	0.75	0.11	8.63
TOTAL	.	5	70	164	208	236	200	50	6	939
	.	0.53	7.45	17.47	22.15	25.13	21.30	5.32	0.64	100.00

ECOLOGICAL ANALYSTS, INC.
COOPER NUCLEAR STATION DATA ANALYSIS
JOINT FREQUENCY OF OCCURRENCE
318 FOOT WIND SPEED VS. WIND DIRECTION ANALYSIS
OCTOBER - DECEMBER 1981
WIND DIRECTION BY WIND SPEED BY STABILITY

TABLE OF WDC2 BY WSC2
CONTROLLING FOR DTC=SLIGHTLY STABLE

WDC2 WSC2

FREQUENCY PERCENT	.	CALM	1-4	4-8	8-13	13-19	19-25	25-32	32-39	TOTAL
.	13 .	0 .	0 .	0 .	0 .	1 .	2 .	0 .	0 .	. .
N	0 .	0 0.00	1 0.21	5 0.41	2 1.03	0 0.41	0 0.00	0 0.00	0 .	10 2.06
NNE	0 .	0 0.00	3 0.62	4 0.82	3 0.62	1 0.21	0 0.00	0 0.00	0 .	11 2.26
NE	0 .	0 0.00	1 0.21	6 1.23	2 0.41	7 1.44	0 0.00	0 0.00	0 .	16 3.29
ENE	0 .	0 0.00	2 0.41	4 0.82	2 0.41	1 0.21	0 0.00	0 0.00	0 .	9 1.85
E	0 .	0 0.00	1 0.21	3 0.62	0 0.00	0 0.00	0 0.00	0 0.00	0 .	4 0.82
ESE	0 .	0 0.00	2 0.41	3 0.62	9 1.85	0 0.00	0 0.00	0 0.00	0 .	14 2.88
SE	0 .	0 0.00	1 0.21	8 1.65	13 2.67	18 3.70	2 0.41	0 0.00	0 .	42 8.64
SSE	0 .	0 0.00	5 1.03	8 1.65	9 1.85	30 6.17	13 2.67	0 0.00	0 .	65 13.37
TOTAL	. .	1 0.21	41 8.44	81 16.67	123 25.31	164 33.74	75 15.43	1 0.21	. .	486 100.00

(CONTINUED)

ECOLOGICAL ANALYSTS, INC.
COOPER NUCLEAR STATION DATA ANALYSIS
JOINT FREQUENCY OF OCCURRENCE
318 FOOT WIND SPEED VS. WIND DIRECTION ANALYSIS
OCTOBER - DECEMBER 1981
WIND DIRECTION BY WIND SPEED BY STABILITY

TABLE OF WDC2 BY WSC2
CONTROLLING FOR DTC=SLIGHTLY STABLE

WDC2	WSC2									
FREQUENCY PERCENT	.	CALM	1-4	4-8	8-13	13-19	19-25	25-32	32-39	TOTAL
S	0 .	0 0.00	6 1.23	9 1.85	24 4.94	36 7.41	24 4.94	1 0.21	0 .	100 20.58
SSW	0 .	0 0.00	2 0.41	4 0.82	17 3.50	27 5.56	15 3.09	0 0.00	0 .	65 13.37
SW	0 .	0 0.00	2 0.41	3 0.62	4 0.82	6 1.23	12 2.47	0 0.00	0 .	27 5.56
WSW	0 .	0 0.00	3 0.62	4 0.82	8 1.65	9 1.85	0 0.00	0 0.00	0 .	24 4.94
W	0 .	0 0.00	2 0.41	12 2.47	2 0.41	4 0.82	3 0.62	0 0.00	0 .	23 4.73
WNW	0 .	1 0.21	3 0.62	4 0.82	10 2.06	7 1.44	0 0.00	0 0.00	0 .	25 5.14
NW	0 .	0 0.00	3 0.62	3 0.62	8 1.65	7 1.44	3 0.62	0 0.00	0 .	24 4.94
NNW	0 .	0 0.00	4 0.82	4 0.82	7 1.44	9 1.85	3 0.62	0 0.00	0 .	27 5.56
TOTAL	.	1 0.21	41 8.44	81 16.67	123 25.31	164 33.74	75 15.43	1 0.21	. .	486 100.00

ECOLOGICAL ANALYSTS, INC.
COOPER NUCLEAR STATION DATA ANALYSIS
JOINT FREQUENCY OF OCCURRENCE
318 FOOT WIND SPEED VS. WIND DIRECTION ANALYSIS
OCTOBER - DECEMBER 1981
WIND DIRECTION BY WIND SPEED BY STABILITY

TABLE OF WDC2 BY WSC2
CONTROLLING FOR DTC=MODERATELY STABL

WDC2 WSC2

FREQUENCY PERCENT	.	CALM	1-4	4-8	8-13	13-19	19-25	25-32	32-39	TOTAL
.	8	0	0	0	0	0	0	0	0	.
	.	.	.	.	.	.	.	.	.	.
N	0	0	0	0	1	0	0	0	0	1
	.	0.00	0.00	0.00	0.49	0.00	0.00	.	.	0.49
NNE	0	1	0	2	1	0	0	0	0	4
	.	0.49	0.00	0.97	0.49	0.00	0.00	.	.	1.94
NE	0	0	0	0	0	0	0	0	0	0
	.	.	.	.	.	.	.	.	.	0.00
ENE	0	0	0	0	3	0	0	0	0	3
	.	0.00	0.00	0.00	1.46	0.00	0.00	.	.	1.46
E	0	0	0	3	3	0	0	0	0	6
	.	0.00	0.00	1.46	1.46	0.00	0.00	.	.	2.91
ESE	0	0	0	3	1	0	0	0	0	4
	.	0.00	0.00	1.46	0.49	0.00	0.00	.	.	1.95
SE	0	1	0	4	4	3	0	0	0	12
	.	0.49	0.00	1.94	1.94	1.46	0.00	.	.	5.83
SSE	0	0	2	2	5	13	3	0	0	25
	.	0.00	0.97	0.97	2.43	6.31	1.46	.	.	12.14
TOTAL	.	6	11	35	49	81	24	.	.	206
	.	2.91	5.34	16.99	23.79	39.32	11.65	.	.	100.00

(CONTINUED)

ECOLOGICAL ANALYSTS, INC.
COOPER NUCLEAR STATION DATA ANALYSIS
JOINT FREQUENCY OF OCCURRENCE
318 FOOT WIND SPEED VS. WIND DIRECTION ANALYSIS
OCTOBER - DECEMBER 1981
WIND DIRECTION BY WIND SPEED BY STABILITY

TABLE OF WDC2 BY WSC2
CONTROLLING FOR DTC=MODERATELY STABL

WDC2 WSC2

FREQUENCY PERCENT	.	CALM	1-4	4-8	8-13	13-19	19-25	25-32	32-39	TOTAL
S	0 .	1 0.49	1 0.49	1 0.49	10 4.85	22 10.68	2 0.97	0 .	0 .	37 17.96
SSW	0 .	0 0.00	0 0.00	2 0.97	2 0.97	10 4.85	5 2.43	0 .	0 .	19 9.22
SW	0 .	0 0.00	2 0.97	3 1.46	4 1.94	16 7.77	7 3.40	0 .	0 .	32 15.53
WSW	0 .	0 0.00	2 0.97	6 2.91	4 1.94	5 2.43	2 0.97	0 .	0 .	19 9.22
W	0 .	1 0.49	1 0.49	2 0.97	2 0.97	3 1.46	3 1.46	0 .	0 .	12 5.83
WNW	0 .	0 0.00	0 0.00	1 0.49	4 1.94	2 0.97	0 0.00	0 .	0 .	7 3.40
NW	0 .	1 0.49	1 0.49	1 0.49	1 0.49	5 2.43	2 0.97	0 .	0 .	11 5.34
NNW	0 .	1 0.49	2 0.97	5 2.43	4 1.94	2 0.97	0 0.00	0 .	0 .	14 6.80
TOTAL	. .	6 2.91	11 5.34	35 16.99	49 23.79	81 39.32	24 11.65	. .	. .	206 100.00

ECOLOGICAL ANALYSTS, INC.
COOPER NUCLEAR STATION DATA ANALYSIS
JOINT FREQUENCY OF OCCURRENCE
318 FOOT WIND SPEED VS. WIND DIRECTION ANALYSIS
OCTOBER - DECEMBER 1981
WIND DIRECTION BY WIND SPEED BY STABILITY

TABLE OF WDC2 BY WSC2
CONTROLLING FOR DTC=EXTREMELY STABLE

WDC2 WSC2

FREQUENCY PERCENT	.	CALM	1-4	4-8	8-13	13-19	19-25	25-32	32-39	TOTAL
.	12 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	. .
N	0 .	0 0.00	1 1.12	1 1.12	0 0.00	0 0.00	0 0.00	0 .	0 .	2 2.25
NNE	0 .	0 0.00	0 0.00	4 4.49	0 0.00	0 0.00	0 0.00	0 .	0 .	4 4.49
NE	0 .	0 0.00	0 0.00	1 1.12	2 2.25	0 0.00	0 0.00	0 .	0 .	3 3.37
ENE	0 .	0 0.00	0 0.00	2 2.25	3 3.37	0 0.00	0 0.00	0 .	0 .	5 5.62
E	0 .	0 0.00	0 0.00	1 1.12	1 1.12	0 0.00	0 0.00	0 .	0 .	2 2.25
ESE	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 0.00
SE	0 .	0 0.00	1 1.12	1 1.12	0 0.00	2 2.25	0 0.00	0 .	0 .	4 4.49
SSE	0 .	0 0.00	2 2.25	1 1.12	7 7.87	0 0.00	1 1.12	0 .	0 .	11 12.36
TOTAL	. .	1 1.12	14 15.73	26 29.21	36 40.45	8 8.99	4 4.49	. .	. .	89 100.00

(CONTINUED)

ECOLOGICAL ANALYSTS, INC.
COOPER NUCLEAR STATION DATA ANALYSIS
JOINT FREQUENCY OF OCCURRENCE
318 FOOT WIND SPEED VS. WIND DIRECTION ANALYSIS
OCTOBER - DECEMBER 1981
WIND DIRECTION BY WIND SPEED BY STABILITY

TABLE OF WDC2 BY WSC2
CONTROLLING FOR DTC=EXTREMELY STABLE

WDC2 WSC2

FREQUENCY PERCENT	.	CALM	1-4	4-8	8-13	13-19	19-25	25-32	32-39	TOTAL
S	0	0	5	3	2	0	0	0	0	10
	.	0.00	5.62	3.37	2.25	0.00	0.00	.	.	11.24
SSW	0	0	1	1	0	0	0	0	0	2
	.	0.00	1.12	1.12	0.00	0.00	0.00	.	.	2.25
SW	0	0	0	4	2	3	2	0	0	11
	.	0.00	0.00	4.49	2.25	3.37	2.25	.	.	12.36
WSW	0	0	2	3	8	3	1	0	0	17
	.	0.00	2.25	3.37	8.99	3.37	1.12	.	.	19.10
W	0	0	0	0	1	0	0	0	0	1
	.	0.00	0.00	0.00	1.12	0.00	0.00	.	.	1.12
WNW	0	1	0	0	0	0	0	0	0	1
	.	1.12	0.00	0.00	0.00	0.00	0.00	.	.	1.12
NW	0	0	0	1	3	0	0	0	0	4
	.	0.00	0.00	1.12	3.37	0.00	0.00	.	.	4.49
NNW	0	0	2	3	7	0	0	0	0	12
	.	0.00	2.25	3.37	7.87	0.00	0.00	.	.	13.48
TOTAL	.	1	14	26	36	8	4	.	.	89
	.	1.12	15.73	29.21	40.45	8.99	4.49	.	.	100.00

ECOLOGICAL ANALYSTS, INC.
COOPER NUCLEAR STATION DATA ANALYSIS
JOINT FREQUENCY OF OCCURRENCE
318 FOOT WIND SPEED VS. WIND DIRECTION ANALYSIS
JULY - DECEMBER 1981
WIND DIRECTION BY WIND SPEED

TABLE OF WDC2 BY WSC2

WDC2 WSC2

FREQUENCY! PERCENT !	.	CALM	1-4	4-8	8-13	13-19	19-25	25-32	32-39	TOTAL
.	115	0	2	1	8	11	2	0	0	.
	.	.	.	.	.	.	.	.	.	.
N	1	0	12	58	124	103	65	18	7	337
	.	0.00	0.29	1.38	2.95	2.45	1.55	0.43	0.17	8.21
NNE	0	1	15	49	61	63	38	8	0	241
	.	0.02	0.38	1.17	1.45	1.52	0.90	0.19	0.00	5.73
NE	0	0	15	37	54	25	9	2	0	143
	.	0.00	0.36	0.88	1.28	0.62	0.21	0.05	0.00	3.40
ENE	0	0	12	46	54	9	3	1	0	125
	.	0.00	0.29	1.09	1.28	0.21	0.07	0.02	0.00	2.97
E	0	0	16	54	45	3	5	0	0	123
	.	0.00	0.38	1.28	1.07	0.07	0.12	0.00	0.00	2.93
ESE	0	0	21	34	68	23	5	5	0	206
	.	0.00	0.50	2.00	1.62	0.55	0.12	0.12	0.00	4.90
SE	0	3	30	90	126	74	21	1	0	345
	.	0.07	0.71	2.14	3.00	1.76	0.50	0.02	0.00	8.21
SSE	0	0	45	37	140	179	43	1	0	495
	.	0.00	1.07	2.07	3.33	4.25	1.02	0.02	0.00	11.79
TOTAL	.	15	306	336	1291	1149	493	96	17	4203
	.	0.36	7.28	19.89	30.72	27.34	11.73	2.28	0.40	100.00

(CONTINUED)

ECOLOGICAL ANALYSTS, INC.
COOPER NUCLEAR STATION DATA ANALYSIS
JOINT FREQUENCY OF OCCURRENCE
318 FOOT WIND SPEED VS. WIND DIRECTION ANALYSIS
JULY - DECEMBER 1981
WIND DIRECTION BY WIND SPEED

TABLE OF WDC2 BY WSC2

WDC2 WSC2

FREQUENCY! PERCENT !	.	CALM	1-4	4-8	8-13	13-19	19-25	25-32	32-39	TOTAL
S	0	3	37	51	144	211	74	12	0	542
	.	0.07	0.88	1.45	3.43	5.02	1.76	0.29	0.00	12.90
SSW	0	0	13	29	116	143	69	2	0	372
	.	0.00	0.31	0.69	2.76	3.40	1.64	0.05	0.00	8.85
SW	0	0	14	37	74	90	51	1	0	267
	.	0.00	0.33	0.88	1.76	2.14	1.21	0.02	0.00	6.35
WSW	0	0	16	40	65	47	14	0	0	182
	.	0.00	0.38	0.95	1.55	1.12	0.33	0.00	0.00	4.33
W	0	4	15	43	13	9	8	0	0	97
	.	0.10	0.36	1.02	0.43	0.21	0.19	0.00	0.00	2.31
WNW	0	2	14	34	37	19	5	1	0	112
	.	0.05	0.33	0.81	0.88	0.45	0.12	0.02	0.00	2.66
NW	0	1	13	31	63	43	29	21	5	212
	.	0.02	0.31	0.74	1.50	1.14	0.69	0.50	0.14	5.04
NNW	0	1	17	56	102	97	54	23	4	354
	.	0.02	0.40	1.33	2.43	2.31	1.28	0.55	0.10	8.42
TOTAL	.	15	306	836	1291	1149	493	96	17	4203
	.	0.36	7.28	19.89	30.72	27.34	11.73	2.28	0.40	100.00

ECOLOGICAL ANALYSTS, INC.
COOPER NUCLEAR STATION DATA ANALYSIS
JOINT FREQUENCY OF OCCURRENCE
318 FOOT WIND SPEED VS. WIND DIRECTION ANALYSIS
JULY - DECEMBER 1981
WIND DIRECTION BY WIND SPEED BY STABILITY

TABLE OF WDC2 BY WSC2
CONTROLLING FOR DTC=EXTREMELY UNSTAB

WDC2 WSC2

FREQUENCY! PERCENT !	.	CALM	1-4	4-8	8-13	13-19	19-25	25-32	32-39	TOTAL
.	14	0	0	0	0	0	0	0	0	.
	.	.	.	.	.	.	.	.	.	.
N	0	0	3	26	36	22	19	4	0	110
	.	.	0.76	6.60	9.14	5.58	4.82	1.02	0.00	27.92
NNE	0	0	0	10	17	13	0	0	0	40
	.	.	0.00	2.54	4.31	3.30	0.00	0.00	0.00	10.15
NE	0	0	1	5	8	0	1	0	0	15
	.	.	0.25	1.27	2.03	0.00	0.25	0.00	0.00	3.81
ENE	0	0	3	4	5	2	0	0	0	14
	.	.	0.76	1.02	1.27	0.51	0.00	0.00	0.00	3.55
E	0	0	2	7	0	0	0	0	0	9
	.	.	0.51	1.73	0.00	0.00	0.00	0.00	0.00	2.28
ESE	0	0	0	10	1	0	0	0	0	11
	.	.	0.00	2.54	0.25	0.00	0.00	0.00	0.00	2.79
SE	0	0	2	4	6	0	0	0	0	12
	.	.	0.51	1.02	1.52	0.00	0.00	0.00	0.00	3.05
SSE	0	0	4	10	4	5	0	0	0	23
	.	.	1.02	2.54	1.02	1.27	0.00	0.00	0.00	5.84
TOTAL	.	.	22	93	134	88	40	15	2	394
	.	.	5.58	23.60	34.01	22.34	10.15	3.81	0.51	100.00

(CONTINUED)

ECOLOGICAL ANALYSTS, INC.
COOPER NUCLEAR STATION DATA ANALYSIS
JOINT FREQUENCY OF OCCURRENCE
318 FOOT WIND SPEED VS. WIND DIRECTION ANALYSIS
JULY - DECEMBER 1981
WIND DIRECTION BY WIND SPEED BY STABILITY

TABLE OF WDC2 BY WSC2
CONTROLLING FOR DTC=EXTREMELY UNSTAB

WDC2 WSC2

FREQUENCY! PERCENT !	.	CALM	1-4	4-8	8-13	13-19	19-25	25-32	32-39	TOTAL
S	0	0	5	1	10	3	0	0	0	24
	.	.	1.27	0.25	2.54	2.03	0.00	0.00	0.00	6.09
SSW	0	0	1	0	4	3	2	0	0	15
	.	.	0.25	0.00	1.02	2.03	0.51	0.00	0.00	3.81
SW	0	0	0	0	3	4	0	0	0	7
	.	.	0.00	0.00	0.76	1.02	0.00	0.00	0.00	1.78
WSW	0	0	0	1	2	2	0	0	0	5
	.	.	0.00	0.25	0.51	0.51	0.00	0.00	0.00	1.27
W	0	0	0	0	1	0	0	0	0	1
	.	.	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.25
WNW	0	0	0	3	2	0	0	0	0	5
	.	.	0.00	0.76	0.51	0.00	0.00	0.00	0.00	1.27
NW	0	0	0	3	12	7	5	5	1	33
	.	.	0.00	0.76	3.05	1.78	1.27	1.27	0.25	8.38
NNW	0	0	1	9	23	17	13	6	1	70
	.	.	0.25	2.28	5.84	4.31	3.30	1.52	0.25	17.77
TOTAL	.	.	22	93	134	88	40	15	2	394
	.	.	5.58	23.60	34.01	22.34	10.15	3.81	0.51	100.00

ECOLOGICAL ANALYSTS, INC.
COOPER NUCLEAR STATION DATA ANALYSIS
JOINT FREQUENCY OF OCCURRENCE
318 FOOT WIND SPEED VS. WIND DIRECTION ANALYSIS
JULY - DECEMBER 1981
WIND DIRECTION BY WIND SPEED BY STABILITY

TABLE OF WDC2 BY WSC2
CONTROLLING FOR DTC=MODERATELY UNSTA

WDC2 WSC2

FREQUENCY! PERCENT !	.	CALM	1-4	4-8	8-13	13-19	19-25	25-32	32-39	TOTAL
.	11	0	0	0	0	0	0	0	0	.
	.	.	.	.	.	.	.	.	.	.
N	0	0	2	5	10	9	12	4	0	42
	.	.	0.72	1.81	3.61	3.25	4.33	1.44	0.00	15.16
NNE	0	0	1	3	3	10	3	1	0	26
	.	.	0.36	2.89	1.08	3.61	1.08	0.36	0.00	9.39
NE	0	0	2	1	2	1	1	0	0	7
	.	.	0.72	0.36	0.72	0.36	0.36	0.00	0.00	2.53
ENE	0	0	1	2	4	0	0	0	0	7
	.	.	0.36	0.72	1.44	0.00	0.00	0.00	0.00	2.53
E	0	0	1	3	0	0	0	0	0	4
	.	.	0.36	1.08	0.00	0.00	0.00	0.00	0.00	1.44
ESE	0	0	2	5	0	0	0	0	0	7
	.	.	0.72	1.81	0.00	0.00	0.00	0.00	0.00	2.53
SE	0	0	2	4	8	1	0	0	0	15
	.	.	0.72	1.44	2.89	0.36	0.00	0.00	0.00	5.42
SSE	0	0	4	7	3	0	0	0	0	14
	.	.	1.44	2.53	1.09	0.00	0.00	0.00	0.00	5.05
TOTAL	.	.	13	57	85	62	42	9	3	277
	.	.	4.69	20.58	30.69	22.38	15.16	3.25	1.08	100.00

(CONTINUED)

ECOLOGICAL ANALYSTS, INC.
COOPER NUCLEAR STATION DATA ANALYSIS
JOINT FREQUENCY OF OCCURRENCE
318 FOOT WIND SPEED VS. WIND DIRECTION ANALYSIS
JULY - DECEMBER 1981
WIND DIRECTION BY WIND SPEED BY STABILITY

TABLE OF WDC2 BY WSC2
CONTROLLING FOR DTC=MODERATELY UNSTA

WDC2 WSC2

FREQUENCY! PERCENT !	.	CALM	1-4	4-8	8-13	13-19	19-25	25-32	32-39	TOTAL
S	0	0	0	1	9	10	4	0	0	24
	.	.	0.00	0.36	3.25	3.61	1.44	0.00	0.00	8.66
SSW	0	0	0	1	10	8	3	0	0	22
	.	.	0.00	0.36	3.61	2.89	1.08	0.00	0.00	7.94
SW	0	0	0	1	10	10	6	0	0	27
	.	.	0.00	0.36	3.61	3.61	2.17	0.00	0.00	9.75
WSW	0	0	1	4	3	9	2	0	0	19
	.	.	0.36	1.44	1.08	3.25	0.72	0.00	0.00	6.86
W	0	0	0	2	1	0	2	0	0	5
	.	.	0.00	0.72	0.36	0.00	0.72	0.00	0.00	1.81
WNW	0	0	1	8	5	0	0	1	0	15
	.	.	0.36	2.89	1.81	0.00	0.00	0.36	0.00	5.42
NW	0	0	1	2	8	1	3	0	2	17
	.	.	0.36	0.72	2.89	0.36	1.08	0.00	0.72	6.14
NNW	0	0	1	3	4	3	6	3	1	21
	.	.	0.36	1.08	1.44	1.08	2.17	1.08	0.36	7.58
TOTAL	.	.	19	57	85	62	42	9	3	277
	.	.	6.86	20.58	30.69	22.38	15.16	3.25	1.08	100.00

ECOLOGICAL ANALYSTS, INC.
COOPER NUCLEAR STATION DATA ANALYSIS
JOINT FREQUENCY OF OCCURRENCE
318 FOOT WIND SPEED VS. WIND DIRECTION ANALYSIS
JULY - DECEMBER 1981
WIND DIRECTION BY WIND SPEED BY STABILITY

TABLE OF WDC2 BY WSC2
CONTROLLING FOR DTC=SLIGHTLY UNSTABL

WDC2 WSC2

FREQUENCY! PERCENT !	.	CALM	1-4	4-8	8-13	13-19	19-25	25-32	32-39	TOTAL
.	11 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	. .
N	0 .	0 .	1 0.29	3 0.88	4 1.18	9 2.65	[illegible] 2.95	7 [illegible]06	5 1.47	39 11.50
NNE	0 .	0 .	3 0.88	3 0.88	2 0.59	6 1.77	6 1.77	3 0.88	0 0.00	23 6.78
NE	0 .	0 .	1 0.29	4 1.18	2 0.59	0 0.00	0 0.00	0 0.00	0 0.00	7 2.06
ENE	0 .	0 .	0 0.00	5 1.47	1 0.29	0 0.00	0 0.00	0 0.00	0 0.00	6 1.77
E	0 .	0 .	2 0.59	3 0.88	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	5 1.47
ESE	0 .	0 .	2 0.59	7 2.06	4 1.18	4 1.18	0 0.00	0 0.00	0 0.00	17 5.01
SE	0 .	0 .	5 1.47	4 1.18	11 3.24	4 1.18	0 0.00	0 0.00	0 0.00	24 7.08
SSE	0 .	0 .	4 1.18	4 1.18	18 5.31	6 1.77	0 0.00	0 0.00	0 0.00	32 9.44
TOTAL	. .	. .	24 7.08	61 17.99	101 29.79	85 25.07	42 12.39	20 5.90	6 1.77	339 100.00

(CONTINUED)

ECOLOGICAL ANALYSTS, INC.
COOPER NUCLEAR STATION DATA ANALYSIS
JOINT FREQUENCY OF OCCURRENCE
318 FOOT WIND SPEED VS. WIND DIRECTION ANALYSIS
JULY - DECEMBER 1981
WIND DIRECTION BY WIND SPEED BY STABILITY

TABLE OF WDC2 BY WSC2
CONTROLLING FOR DTC=SLIGHTLY UNSTABL

WDC2 WSC2

FREQUENCY! PERCENT !	.	CALM	1-4	4-8	8-13	13-19	19-25	25-32	32-39	TOTAL
S	0	0	1	3	14	13	2	0	0	33
	.	.	0.29	0.88	4.13	3.83	0.59	0.00	0.00	9.73
SSW	0	0	4	4	10	13	2	0	0	33
	.	.	1.18	1.18	2.95	3.83	0.59	0.00	0.00	9.73
SW	0	0	1	4	9	9	6	0	0	29
	.	.	0.29	1.18	2.65	2.65	1.77	0.00	0.00	8.55
WSW	0	0	0	2	8	4	2	0	0	16
	.	.	0.00	0.59	2.36	1.18	0.59	0.00	0.00	4.72
W	0	0	0	5	3	1	0	0	0	9
	.	.	0.00	1.47	0.88	0.29	0.00	0.00	0.00	2.65
WNW	0	0	0	3	5	1	1	0	0	10
	.	.	0.00	0.88	1.47	0.29	0.29	0.00	0.00	2.95
NW	0	0	0	5	4	4	2	3	0	18
	.	.	0.00	1.47	1.18	1.18	0.59	0.88	0.00	5.31
NNW	0	0	0	2	6	11	11	7	1	38
	.	.	0.00	0.59	1.77	3.24	3.24	2.06	0.29	11.21
TOTAL	.	.	24	61	101	85	42	20	6	339
	.	.	7.08	17.99	29.79	25.07	12.39	5.90	1.77	100.00

ECOLOGICAL ANALYSTS, INC.
COOPER NUCLEAR STATION DATA ANALYSIS
JOINT FREQUENCY OF OCCURRENCE
318 FOOT WIND SPEED VS. WIND DIRECTION ANALYSIS
JULY - DECEMBER 1981
WIND DIRECTION BY WIND SPEED BY STABILITY

TABLE OF WDC2 BY WSC2
CONTROLLING FOR DTC=NEUTRAL

WDC2 WSC2

FREQUENCY! PERCENT !	.	CALM	1-4	4-8	8-13	13-19	19-25	25-32	32-39	TOTAL
.	38	0	0	0	5	10	0	0	0	
	.	.	.	.	.	.	.	.	.	.
N	1	0	2	9	49	50	24	3	2	139
	.	0.00	0.13	0.58	3.14	3.20	1.54	0.19	0.13	8.90
NNE	0	0	6	14	25	32	28	4	0	109
	.	0.00	0.38	0.90	1.60	2.05	1.79	0.26	0.00	6.98
NE	0	0	6	16	30	12	7	2	0	73
	.	0.00	0.38	1.02	1.92	0.77	0.45	0.13	0.00	4.67
ENE	0	0	3	19	26	5	3	1	0	57
	.	0.00	0.19	1.22	1.66	0.32	0.19	0.06	0.00	3.65
E	0	0	2	19	29	3	5	0	0	58
	.	0.00	0.13	1.22	1.86	0.19	0.32	0.00	0.00	3.71
ESE	0	0	12	32	38	14	2	5	0	103
	.	0.00	0.77	2.05	2.43	0.90	0.13	0.32	0.00	6.59
SE	0	2	10	38	48	26	19	1	0	144
	.	0.13	0.64	2.43	3.07	1.66	1.22	0.06	0.00	9.22
SSE	0	0	10	37	56	77	25	1	0	206
	.	0.00	0.64	2.37	3.59	4.93	1.60	0.06	0.00	13.19
TOTAL	.	6	103	283	472	412	224	51	6	1562
	.	0.38	6.59	18.44	30.22	26.38	14.34	3.27	0.38	100.00

(CONTINUED)

ECOLOGICAL ANALYSTS, INC.
COOPER NUCLEAR STATION DATA ANALYSIS
JOINT FREQUENCY OF OCCURRENCE
318 FOOT WIND SPEED VS. WIND DIRECTION ANALYSIS
JULY - DECEMBER 1981
WIND DIRECTION BY WIND SPEED BY STABILITY

TABLE OF WDC2 BY WSC2
CONTROLLING FOR DTC=NEUTRAL

WDC2 WSC2

FREQUENCY! PERCENT !	.	CALM	1-4	4-8	8-13	13-19	19-25	25-32	32-39	TOTAL
S	0	2	16	31	37	60	33	11	0	190
	.	0.13	1.02	1.98	2.37	3.84	2.11	0.70	0.00	12.16
SSW	0	0	4	12	32	38	27	2	0	115
	.	0.00	0.26	0.77	2.05	2.43	1.73	0.13	0.00	7.36
SW	0	0	6	12	26	21	11	1	0	77
	.	0.00	0.38	0.77	1.66	1.34	0.70	0.06	0.00	4.93
WSW	0	0	3	10	21	5	2	0	0	41
	.	0.00	0.19	0.64	1.34	0.32	0.13	0.00	0.00	2.62
W	0	2	7	10	4	0	0	0	0	23
	.	0.13	0.45	0.64	0.26	0.00	0.00	0.00	0.00	1.47
WNW	0	0	6	10	9	3	4	0	0	37
	.	0.00	0.38	0.64	0.58	0.51	0.26	0.00	0.00	2.37
NW	0	0	6	7	19	15	13	13	3	75
	.	0.00	0.38	0.45	1.15	0.96	0.83	0.83	0.19	4.80
NNW	0	0	4	12	24	46	21	7	1	115
	.	0.00	0.26	0.77	1.54	2.94	1.34	0.45	0.06	7.36
TOTAL	.	6	103	288	472	412	224	51	6	1562
	.	0.38	6.59	18.44	30.22	26.38	14.34	3.27	0.38	100.00

ECOLOGICAL ANALYSTS, INC.
COOPER NUCLEAR STATION DATA ANALYSIS
JOINT FREQUENCY OF OCCURRENCE
318 FOOT WIND SPEED VS. WIND DIRECTION ANALYSIS
JULY - DECEMBER 1981
WIND DIRECTION BY WIND SPEED BY STABILITY

TABLE OF WDC2 BY WSC2
CONTROLLING FOR DTC=SLIGHTLY STABLE

WDC2 WSC2

FREQUENCY! PERCENT !	.	CALM	1-4	4-8	8-13	13-19	19-25	25-32	32-39	TOTAL
.	21	0	0	1	1	1	2	0	0	.
	.	.	.	.	.	.	.	.	.	.
N	0	0	2	7	18	12	0	0	0	39
	.	0.00	0.19	0.65	1.68	1.12	0.00	0.00	.	3.63
NNE	0	0	5	6	9	7	1	0	0	28
	.	0.00	0.47	0.56	0.84	0.65	0.09	0.00	.	2.61
NE	0	0	3	9	9	13	0	0	0	34
	.	0.00	0.28	0.84	0.84	1.21	0.00	0.00	.	3.17
ENE	0	0	4	10	12	2	0	0	0	28
	.	0.00	0.37	0.93	1.12	0.19	0.00	0.00	.	2.61
E	0	0	6	11	10	0	0	0	0	27
	.	0.00	0.56	1.02	0.93	0.00	0.00	0.00	.	2.51
ESE	0	0	3	22	22	5	3	0	0	55
	.	0.00	0.28	2.05	2.05	0.47	0.28	0.00	.	5.12
SE	0	0	7	29	45	38	2	0	0	121
	.	0.00	0.65	2.70	4.19	3.54	0.19	0.00	.	11.27
SSE	0	0	12	20	30	72	14	0	0	148
	.	0.00	1.12	1.86	2.79	6.70	1.30	0.00	.	13.79
TOTAL	.	2	79	195	321	366	110	1	.	1074
	.	0.19	7.36	18.16	29.89	34.08	10.24	0.09	.	100.00

(CONTINUED)

ECOLOGICAL ANALYSTS, INC.
COOPER NUCLEAR STATION DATA ANALYSIS
JOINT FREQUENCY OF OCCURRENCE
319 FOOT WIND SPEED VS. WIND DIRECTION ANALYSIS
JULY - DECEMBER 1981
WIND DIRECTION BY WIND SPEED BY STABILITY

TABLE OF WDC2 BY WSC2
CONTROLLING FOR DTC=SLIGHTLY STABLE

WDC2 WSC2

FREQUENCY! PERCENT !	.	CALM	1-4	4-8	8-13	13-19	19-25	25-32	32-39	TOTAL
S	0	0	8	13	50	89	32	1	0	193
	.	0.00	0.74	1.21	4.66	8.29	2.98	0.09	.	17.97
SSW	0	0	2	8	39	59	30	0	0	138
	.	0.00	0.19	0.74	3.63	5.49	2.79	0.00	.	12.85
SW	0	0	4	10	12	15	16	0	0	58
	.	0.00	0.37	0.93	1.12	1.40	1.49	0.00	.	5.40
WSW	0	0	5	8	12	12	2	0	0	39
	.	0.00	0.47	0.74	1.12	1.12	0.19	0.00	.	3.63
W	0	1	5	15	5	4	3	0	0	33
	.	0.09	0.47	1.40	0.47	0.37	0.28	0.00	.	3.07
WNW	0	1	4	4	10	3	0	0	0	27
	.	0.09	0.37	0.37	0.93	0.28	0.00	0.00	.	2.51
NW	0	0	4	6	14	14	4	0	0	42
	.	0.00	0.37	0.56	1.30	1.30	0.37	0.00	.	3.91
NNW	0	0	5	17	24	15	3	0	0	64
	.	0.00	0.47	1.58	2.23	1.40	0.28	0.00	.	5.96
TOTAL	.	2	79	195	321	365	110	1	.	1074
	.	0.19	7.36	18.16	29.89	34.00	10.24	0.09	.	100.00

ECOLOGICAL ANALYSTS, INC.
COOPER NUCLEAR STATION DATA ANALYSIS
JOINT FREQUENCY OF OCCURRENCE
318 FOOT WIND SPEED VS. WIND DIRECTION ANALYSIS
JULY - DECEMBER 1981
WIND DIRECTION BY WIND SPEED BY STABILITY

TABLE OF WDC2 BY WSC2
CONTROLLING FOR DTC=MODERATELY STABL

WDC2 WSC2

FREQUENCY! PERCENT !	.	CALM	1-4	4-8	8-13	13-19	19-25	25-32	32-39	TOTAL
.	0	0	0	0	0	0	0	0	0	.
	.	.	.	.	.	.	.	.	.	.
N	0	0	0	7	6	1	0	0	0	14
	.	0.00	0.00	1.80	1.54	0.26	0.00	.	.	3.60
NNE	0	1	1	3	2	0	0	0	0	7
	.	0.26	0.26	0.77	0.51	0.00	0.00	.	.	1.80
NE	0	0	0	0	0	0	0	0	0	0
	.	.	.	.	.	.	.	.	.	0.00
ENE	0	0	1	3	3	0	0	0	0	7
	.	0.00	0.26	0.77	0.77	0.00	0.00	.	.	1.80
E	0	0	0	9	5	0	0	0	0	14
	.	0.00	0.00	2.31	1.29	0.00	0.00	.	.	3.60
ESE	0	0	0	8	3	0	0	0	0	11
	.	0.00	0.00	2.06	0.77	0.00	0.00	.	.	2.83
SE	0	1	2	7	8	3	0	0	0	21
	.	0.26	0.51	1.80	2.06	0.77	0.00	.	.	5.40
SSE	0	0	5	7	13	19	3	0	0	47
	.	0.00	1.29	1.80	3.34	4.88	0.77	.	.	12.08
TOTAL	.	6	27	90	112	125	29	.	.	389
	.	1.54	6.94	23.14	28.79	32.13	7.46	.	.	100.00

(CONTINUED)

ECOLOGICAL ANALYSTS, INC.
COOPER NUCLEAR STATION DATA ANALYSIS
JOINT FREQUENCY OF OCCURRENCE
318 FOOT WIND SPEED VS. WIND DIRECTION ANALYSIS
JULY - DECEMBER 1981
WIND DIRECTION BY WIND SPEED BY STABILITY

TABLE OF WDC2 BY WSC2
CONTROLLING FOR DTC=MODERATELY STABL

WDC2 WSC2

FREQUENCY! PERCENT !	.	CALM	1-4	4-8	8-13	13-19	19-25	25-32	32-39	TOTAL
S	0	1	2	4	17	31	3	0	0	58
	.	0.26	0.51	1.03	4.37	7.97	0.77	.	.	14.91
SSW	0	0	1	3	12	17	5	0	0	38
	.	0.00	0.26	0.77	3.08	4.37	1.29	.	.	9.77
SW	0	0	2	6	12	24	9	0	0	53
	.	0.00	0.51	1.54	3.08	6.17	2.31	.	.	13.62
WSW	0	0	4	9	11	12	4	0	0	40
	.	0.00	1.03	2.31	2.83	3.08	1.03	.	.	10.28
W	0	1	2	4	3	4	3	0	0	17
	.	0.26	0.51	1.03	0.77	1.03	0.77	.	.	4.37
WNW	0	0	3	4	4	2	0	0	0	13
	.	0.00	0.77	1.03	1.03	0.51	0.00	.	.	3.34
NW	0	1	1	6	1	7	2	0	0	18
	.	0.26	0.26	1.54	0.26	1.80	0.51	.	.	4.63
NNW	0	1	3	10	12	5	0	0	0	31
	.	0.26	0.77	2.57	3.08	1.29	0.00	.	.	7.97
TOTAL	.	6	27	90	112	125	29	.	.	389
	.	1.54	6.94	23.14	28.79	32.13	7.46	.	.	100.00

ECOLOGICAL ANALYSTS, INC.
COOPER NUCLEAR STATION DATA ANALYSIS
JOINT FREQUENCY OF OCCURRENCE
318 FOOT WIND SPEED VS. WIND DIRECTION ANALYSIS
JULY - DECEMBER 1981
WIND DIRECTION BY WIND SPEED BY STABILITY

TABLE OF WDC2 BY WSC2
CONTROLLING FOR DTC=EXTREMELY STABLE

WDC2 WSC2

FREQUENCY! PERCENT !	.	CALM	1-4	4-8	8-13	13-19	19-25	25-32	32-39	TOTAL
.	12	0	2	0	2	0	0	0	0	.
	.	.	.	.	.	.	.	.	.	.
N	0	0	2	1	1	0	0	0	0	4
	.	0.00	1.19	0.60	0.60	0.00	0.00	.	.	2.38
NNE	0	0	0	5	3	0	0	0	0	8
	.	0.00	0.00	2.98	1.79	0.00	0.00	.	.	4.76
NE	0	0	2	2	3	0	0	0	0	7
	.	0.00	1.19	1.19	1.79	0.00	0.00	.	.	4.17
ENE	0	0	0	3	3	0	0	0	0	6
	.	0.00	0.00	1.79	1.79	0.00	0.00	.	.	3.57
E	0	0	3	2	1	0	0	0	0	6
	.	0.00	1.79	1.19	0.60	0.00	0.00	.	.	3.57
ESE	0	0	2	0	0	0	0	0	0	2
	.	0.00	1.19	0.00	0.00	0.00	0.00	.	.	1.19
SE	0	0	2	4	0	2	0	0	0	8
	.	0.00	1.19	2.38	0.00	1.19	0.00	.	.	4.76
SSE	0	0	6	2	11	0	1	0	0	20
	.	0.00	3.57	1.19	6.55	0.00	0.60	.	.	11.90
TOTAL	.	1	32	52	66	11	6	.	.	168
	.	0.60	19.05	30.95	39.29	6.55	3.57	.	.	100.00

(CONTINUED)

ECOLOGICAL ANALYSTS, INC.
COOPER NUCLEAR STATION DATA ANALYSIS
JOINT FREQUENCY OF OCCURRENCE
318 FOOT WIND SPEED VS. WIND DIRECTION ANALYSIS
JULY - DECEMBER 1981
WIND DIRECTION BY WIND SPEED BY STABILITY

TABLE OF WDC2 BY WSC2
CONTROLLING FOR DTC=EXTREMELY STABLE

WDC2 WSC2

FREQUENCY! PERCENT !	.	CALM	1-4	4-8	8-13	13-19	19-25	25-32	32-39	TOTAL
S	0	0	5	8	7	0	0	0	0	20
	.	0.00	2.98	4.76	4.17	0.00	0.00	.	.	11.90
SSW	0	0	1	1	9	0	0	0	0	11
	.	0.00	0.60	0.60	5.36	0.00	0.00	.	.	6.55
SW	0	0	1	4	2	6	3	0	0	16
	.	0.00	0.60	2.38	1.19	3.57	1.79	.	.	9.52
WSW	0	0	3	6	9	3	2	0	0	22
	.	0.00	1.79	3.57	4.76	1.79	1.19	.	.	13.10
W	0	0	1	7	1	0	0	0	0	9
	.	0.00	0.60	4.17	0.60	0.00	0.00	.	.	5.36
WNW	0	1	0	2	2	0	0	0	0	5
	.	0.60	0.00	1.19	1.19	0.00	0.00	.	.	2.98
NW	0	0	1	2	6	0	0	0	0	9
	.	0.00	0.60	1.19	3.57	0.00	0.00	.	.	5.36
NNW	0	0	3	3	9	0	0	0	0	15
	.	0.00	1.79	1.79	5.36	0.00	0.00	.	.	8.93
TOTAL	.	1	32	52	56	11	6	.	.	158
	.	0.60	19.05	30.95	33.29	6.55	3.57	.	.	100.00

ECOLOGICAL ANALYSTS, INC.
COOPER NUCLEAR STATION DATA ANALYSIS
JOINT FREQUENCY OF OCCURRENCE
318 FOOT WIND SPEED VS. WIND DIRECTION ANALYSIS
JANUARY - DECEMBER 1981
WIND DIRECTION BY WIND SPEED

TABLE OF WDC2 BY WSC2

WDC2 WSC2

FREQUENCY PERCENT	.	CALM	1-4	4-8	8-13	13-19	19-25	25-32	32-39	TOTAL
.	203 .	0 .	7 .	2 .	12 .	14 .	2 .	0 .	0 .	. .
N	1 .	4 0.05	22 0.26	105 1.25	214 2.56	263 3.14	106 1.27	42 0.50	14 0.17	770 9.20
NNE	0 .	1 0.01	28 0.33	70 0.84	128 1.53	149 1.78	72 0.86	24 0.29	0 0.00	472 5.64
NE	0 .	1 0.01	19 0.23	60 0.72	139 1.66	62 0.74	22 0.26	10 0.12	0 0.00	313 3.74
ENE	0 .	0 0.00	18 0.21	85 1.02	119 1.42	45 0.54	20 0.24	5 0.06	0 0.00	292 3.49
E	0 .	0 0.00	28 0.33	80 0.96	101 1.21	30 0.36	17 0.20	0 0.00	0 0.00	256 3.06
ESE	0 .	0 0.00	40 0.48	125 1.49	112 1.34	70 0.84	27 0.32	5 0.06	0 0.00	379 4.53
SE	0 .	3 0.04	47 0.56	121 1.44	223 2.66	152 1.82	48 0.57	5 0.06	0 0.00	599 7.15
SSE	0 .	0 0.00	59 0.70	113 1.35	231 2.76	257 3.07	67 0.80	6 0.07	0 0.00	733 8.75
TOTAL	. .	32 0.38	515 6.15	1417 16.92	2482 29.64	2342 27.97	1172 14.00	357 4.26	57 0.68	8374 100.00

(CONTINUED)

ECOLOGICAL ANALYSTS, INC.
COOPER NUCLEAR STATION DATA ANALYSIS
JOINT FREQUENCY OF OCCURRENCE
318 FOOT WIND SPEED VS. WIND DIRECTION ANALYSIS
JANUARY - DECEMBER 1981
WIND DIRECTION BY WIND SPEED

TABLE OF WDC2 BY WSC2

WDC2 WSC2

FREQUENCY PERCENT	.	CALM	1-4	4-8	8-13	13-19	19-25	25-32	32-39	TOTAL
S	13	3	43	93	262	374	156	42	1	974
	.	0.04	0.51	1.11	3.13	4.47	1.86	0.50	0.01	11.63
SSW	25	0	27	69	203	253	181	71	20	824
	.	0.00	0.32	0.82	2.42	3.02	2.16	0.85	0.24	9.84
SW	5	2	25	77	160	149	89	30	8	540
	.	0.02	0.30	0.92	1.91	1.78	1.06	0.36	0.10	6.45
WSW	0	0	29	93	114	91	33	9	0	369
	.	0.00	0.35	1.11	1.36	1.09	0.39	0.11	0.00	4.41
W	1	8	33	83	79	46	22	6	0	277
	.	0.10	0.39	0.99	0.94	0.55	0.26	0.07	0.00	3.31
WNW	0	4	35	76	90	75	35	3	0	318
	.	0.05	0.42	0.91	1.07	0.90	0.42	0.04	0.00	3.80
NW	0	4	25	69	113	135	122	25	6	499
	.	0.05	0.30	0.82	1.35	1.61	1.46	0.30	0.07	5.96
NNW	0	2	37	98	194	191	155	74	8	759
	.	0.02	0.44	1.17	2.32	2.28	1.85	0.88	0.10	9.06
TOTAL	.	32	515	1417	2482	2342	1172	357	57	8374
	.	0.38	6.15	16.92	29.64	27.97	14.00	4.26	0.68	100.00

ECOLOGICAL ANALYSTS, INC.
COOPER NUCLEAR STATION DATA ANALYSIS
JOINT FREQUENCY OF OCCURRENCE
318 FOOT WIND SPEED VS. WIND DIRECTION ANALYSIS
JANUARY - DECEMBER 1981
WIND DIRECTION BY WIND SPEED BY STABILITY

TABLE OF WDC2 BY WSC2
CONTROLLING FOR DTC=EXTREMELY UNSTAB

WDC2 WSC2

FREQUENCY PERCENT	.	CALM	1-4	4-8	8-13	13-19	19-25	25-32	32-39	TOTAL
.	40 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	. .
N	0 .	0 .	5 0.48	46 4.46	63 6.11	69 6.69	35 3.39	11 1.07	5 0.48	234 22.70
NNE	0 .	0 .	5 0.48	14 1.36	29 2.81	34 3.30	7 0.68	0 0.00	0 0.00	89 8.63
NE	0 .	0 .	3 0.29	7 0.68	23 2.23	4 0.39	1 0.10	0 0.00	0 0.00	38 3.69
ENE	0 .	0 .	4 0.39	8 0.78	19 1.84	3 0.29	0 0.00	0 0.00	0 0.00	34 3.30
E	0 .	0 .	3 0.29	13 1.26	10 0.97	2 0.19	0 0.00	0 0.00	0 0.00	28 2.72
ESE	0 .	0 .	3 0.29	17 1.65	1 0.10	0 0.00	0 0.00	0 0.00	0 0.00	21 2.04
SE	0 .	0 .	3 0.29	6 0.58	7 0.68	2 0.19	0 0.00	0 0.00	0 0.00	18 1.75
SSE	0 .	0 .	6 0.58	11 1.07	8 0.78	8 0.78	2 0.19	2 0.19	0 0.00	37 3.59
TOTAL	. .	. .	52 5.04	181 17.56	283 27.45	263 25.51	146 14.16	88 8.54	18 1.75	1031 100.00

(CONTINUED)

ECOLOGICAL ANALYSTS, INC.
COOPER NUCLEAR STATION DATA ANALYSIS
JOINT FREQUENCY OF OCCURRENCE
318 FOOT WIND SPEED VS. WIND DIRECTION ANALYSIS
JANUARY - DECEMBER 1981
WIND DIRECTION BY WIND SPEED BY STABILITY

TABLE OF WDC2 BY WSC2
CONTROLLING FOR DTC=EXTREMELY UNSTAB

WDC2	WSC2									
FREQUENCY PERCENT	.	CALM	1-4	4-8	8-13	13-19	19-25	25-32	32-39	TOTAL
S	0 .	0 .	5 0.48	4 0.39	19 1.84	21 2.04	7 0.68	10 0.97	0 0.00	66 6.40
SSW	4 .	0 .	4 0.39	4 0.39	9 0.87	15 1.45	12 1.16	15 1.45	8 0.78	67 6.50
SW	0 .	0 .	1 0.10	2 0.19	8 0.78	5 0.48	1 0.10	5 0.48	2 0.19	24 2.33
WSW	0 .	0 .	1 0.10	5 0.48	4 0.39	4 0.39	1 0.10	6 0.58	0 0.00	21 2.04
W	0 .	0 .	0 0.00	2 0.19	6 0.58	4 0.39	2 0.19	3 0.29	0 0.00	17 1.65
WNW	0 .	0 .	3 0.29	10 0.97	7 0.68	14 1.36	5 0.48	0 0.00	0 0.00	39 3.78
NW	0 .	0 .	2 0.19	11 1.07	24 2.33	29 2.81	37 3.59	6 0.58	1 0.10	110 10.67
NNW	0 .	0 .	4 0.39	21 2.04	46 4.46	49 4.75	36 3.49	30 2.91	2 0.19	188 18.23
TOTAL	. .	. .	52 5.04	181 17.56	283 27.45	263 25.51	146 14.16	88 8.54	18 1.75	1031 100.00

ECOLOGICAL ANALYSTS, INC.
COOPER NUCLEAR STATION DATA ANALYSIS
JOINT FREQUENCY OF OCCURRENCE
318 FOOT WIND SPEED VS. WIND DIRECTION ANALYSIS
JANUARY - DECEMBER 1981
WIND DIRECTION BY WIND SPEED BY STABILITY

TABLE OF WDC2 BY WSC2
CONTROLLING FOR DTC=MODERATELY UNSTA

WDC2 WSC2

FREQUENCY PERCENT	.	CALM	1-4	4-8	8-13	13-19	19-25	25-32	32-39	TOTAL
.	17	0	0	0	0	0	0	0	0	.
	.	.	.	.	.	.	.	.	.	.
N	0	0	2	10	18	25	16	6	2	79
	.	0.00	0.36	1.78	3.21	4.46	2.85	1.07	0.36	14.08
NNE	0	0	1	8	4	16	7	5	0	41
	.	0.00	0.18	1.43	0.71	2.85	1.25	0.89	0.00	7.31
NE	0	0	2	2	7	2	1	0	0	14
	.	0.00	0.36	0.36	1.25	0.36	0.18	0.00	0.00	2.50
ENE	0	0	2	6	9	1	0	0	0	18
	.	0.00	0.36	1.07	1.60	0.18	0.00	0.00	0.00	3.21
E	0	0	2	4	2	3	0	0	0	11
	.	0.00	0.36	0.71	0.36	0.53	0.00	0.00	0.00	1.96
ESE	0	0	5	7	0	2	0	0	0	14
	.	0.00	0.89	1.25	0.00	0.36	0.00	0.00	0.00	2.50
SE	0	0	3	9	14	6	1	0	0	33
	.	0.00	0.53	1.60	2.50	1.07	0.18	0.00	0.00	5.88
SSE	0	0	6	8	11	3	0	0	0	28
	.	0.00	1.07	1.43	1.96	0.53	0.00	0.00	0.00	4.99
TOTAL	.	2	36	98	167	138	78	32	10	561
	.	0.36	6.42	17.47	29.77	24.60	13.90	5.70	1.78	100.00

(CONTINUED)

ECOLOGICAL ANALYSTS, INC.
COOPER NUCLEAR STATION DATA ANALYSIS
JOINT FREQUENCY OF OCCURRENCE
318 FOOT WIND SPEED VS. WIND DIRECTION ANALYSIS
JANUARY - DECEMBER 1981
WIND DIRECTION BY WIND SPEED BY STABILITY

TABLE OF WDC2 BY WSC2
CONTROLLING FOR DTC=MODERATELY UNSTA

WDC2 WSC2

FREQUENCY PERCENT	.	CALM	1-4	4-8	8-13	13-19	19-25	25-32	32-39	TOTAL
S	1	0	0	4	21	18	9	3	1	56
	.	0.00	0.00	0.71	3.74	3.21	1.60	0.53	0.18	9.98
SSW	3	0	0	3	18	15	6	8	3	53
	.	0.00	0.00	0.53	3.21	2.67	1.07	1.43	0.53	9.45
SW	1	0	3	2	16	18	12	2	1	54
	.	0.00	0.53	0.36	2.85	3.21	2.14	0.36	0.18	9.63
WSW	0	0	2	8	6	10	5	1	0	32
	.	0.00	0.36	1.43	1.07	1.78	0.89	0.18	0.00	5.70
W	0	0	0	6	11	2	3	0	0	22
	.	0.00	0.00	1.07	1.96	0.36	0.53	0.00	0.00	3.92
WNW	0	0	4	11	10	3	2	1	0	31
	.	0.00	0.71	1.96	1.78	0.53	0.36	0.18	0.00	5.53
NW	0	1	1	4	10	7	5	0	2	30
	.	0.18	0.18	0.71	1.78	1.25	0.89	0.00	0.36	5.35
NNW	0	1	3	6	10	7	11	6	1	45
	.	0.18	0.53	1.07	1.78	1.25	1.96	1.07	0.18	8.02
TOTAL	.	2	36	98	167	138	78	32	10	561
	.	0.36	6.42	17.47	29.77	24.60	13.90	5.70	1.78	100.00

ECOLOGICAL ANALYSTS, INC.
COOPER NUCLEAR STATION DATA ANALYSIS
JOINT FREQUENCY OF OCCURRENCE
318 FOOT WIND SPEED VS. WIND DIRECTION ANALYSIS
JANUARY - DECEMBER 1981
WIND DIRECTION BY WIND SPEED BY STABILITY

TABLE OF WDC2 BY WSC2
CONTROLLING FOR DTC=SLIGHTLY UNSTABL

WDC2 WSC2

FREQUENCY PERCENT	.	CALM	1-4	4-8	8-13	13-19	19-25	25-32	32-39	TOTAL
.	17 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	. .
N	0 .	0 .	3 0.43	4 0.57	14 2.00	33 4.71	19 2.71	17 2.43	5 0.71	95 13.57
NNE	0 .	0 .	4 0.57	4 0.57	8 1.14	17 2.43	12 1.71	6 0.86	0 0.00	51 7.29
NE	0 .	0 .	1 0.14	4 0.57	7 1.00	1 0.14	0 0.00	0 0.00	0 0.00	13 1.86
ENE	0 .	0 .	2 0.29	6 0.86	4 0.57	0 0.00	1 0.14	0 0.00	0 0.00	13 1.86
E	0 .	0 .	3 0.43	6 0.86	6 0.86	3 0.43	1 0.14	0 0.00	0 0.00	19 2.71
ESE	0 .	0 .	5 0.71	16 2.29	11 1.57	9 1.29	0 0.00	0 0.00	0 0.00	41 5.86
SE	0 .	0 .	9 1.29	9 1.29	20 2.86	10 1.43	2 0.29	0 0.00	0 0.00	50 7.14
SSE	0 .	0 .	7 1.00	7 1.00	25 3.57	10 1.43	2 0.29	0 0.00	0 0.00	51 7.29
TOTAL	. .	. .	49 7.00	112 16.00	205 29.29	176 25.14	91 13.00	56 8.00	11 1.57	700 100.00

(CONTINUED)

ECOLOGICAL ANALYSTS, INC.
COOPER NUCLEAR STATION DATA ANALYSIS
JOINT FREQUENCY OF OCCURRENCE
318 FOOT WIND SPEED VS. WIND DIRECTION ANALYSIS
JANUARY - DECEMBER 1981
WIND DIRECTION BY WIND SPEED BY STABILITY

TABLE OF WDC2 BY WSC2
CONTROLLING FOR DTC=SLIGHTLY UNSTABL

WDC2 WSC2

FREQUENCY PERCENT	.	CALM	1-4	4-8	8-13	13-19	19-25	25-32	32-39	TOTAL
S	2	0	3	7	21	22	5	3	0	61
	.	.	0.43	1.00	3.00	3.14	0.71	0.43	0.00	8.71
SSW	2	0	5	9	19	18	9	7	2	69
	.	.	0.71	1.29	2.71	2.57	1.29	1.00	0.29	9.86
SW	1	0	2	10	25	16	10	4	1	68
	.	.	0.29	1.43	3.57	2.29	1.43	0.57	0.14	9.71
WSW	0	0	0	5	13	6	2	0	0	26
	.	.	0.00	0.71	1.86	0.86	0.29	0.00	0.00	3.71
W	0	0	3	7	8	5	0	3	0	26
	.	.	0.43	1.00	1.14	0.71	0.00	0.43	0.00	3.71
WNW	0	0	1	6	8	4	1	0	0	20
	.	.	0.14	0.86	1.14	0.57	0.14	0.00	0.00	2.86
NW	0	0	0	7	6	8	6	4	0	31
	.	.	0.00	1.00	0.86	1.14	0.86	0.57	0.00	4.43
NNW	0	0	1	5	10	14	21	12	3	66
	.	.	0.14	0.71	1.43	2.00	3.00	1.71	0.43	9.43
TOTAL	.	.	49	112	205	176	91	56	11	700
	.	.	7.00	16.00	29.29	25.14	13.00	8.00	1.57	100.00

ECOLOGICAL ANALYSTS, INC.
COOPER NUCLEAR STATION DATA ANALYSIS
JOINT FREQUENCY OF OCCURRENCE
318 FOOT WIND SPEED VS. WIND DIRECTION ANALYSIS
JANUARY - DECEMBER 1981
WIND DIRECTION BY WIND SPEED BY STABILITY

TABLE OF WDC2 BY WSC2
CONTROLLING FOR DTC=NEUTRAL

WDC2 WSC2

FREQUENCY PERCENT	.	CALM	1-4	4-8	8-13	13-19	19-25	25-32	32-39	TOTAL
.	63 .	0 .	2 .	1 .	5 .	10 .	0 .	0 .	0 .	. .
N	1 .	0 0.00	3 0.10	12 0.41	69 2.34	99 3.36	35 1.19	8 0.27	2 0.07	228 7.74
NNE	0 .	0 0.00	8 0.27	21 0.71	47 1.60	57 1.94	45 1.53	13 0.44	0 0.00	191 6.49
NE	0 .	0 0.00	7 0.24	23 0.78	65 2.21	38 1.29	16 0.54	8 0.27	0 0.00	157 5.33
ENE	0 .	0 0.00	4 0.14	34 1.15	54 1.83	38 1.29	19 0.65	4 0.14	0 0.00	153 5.20
E	0 .	0 0.00	6 0.20	27 0.92	52 1.77	20 0.68	16 0.54	0 0.00	0 0.00	121 4.11
ESE	0 .	0 0.00	15 0.51	42 1.43	52 1.77	44 1.49	20 0.68	5 0.17	0 0.00	178 6.05
SE	0 .	2 0.07	14 0.48	53 1.80	96 3.26	60 2.04	36 1.22	3 0.10	0 0.00	264 8.97
SSE	0 .	0 0.00	13 0.44	46 1.56	94 3.19	108 3.67	35 1.19	2 0.07	0 0.00	298 10.12
TOTAL	. .	8 0.27	151 5.13	428 14.54	818 27.79	838 28.46	524 17.80	162 5.50	15 0.51	2944 100.00

(CONTINUED)

ECOLOGICAL ANALYSTS, INC.
COOPER NUCLEAR STATION DATA ANALYSIS
JOINT FREQUENCY OF OCCURRENCE
318 FOOT WIND SPEED VS. WIND DIRECTION ANALYSIS
JANUARY - DECEMBER 1981
WIND DIRECTION BY WIND SPEED BY STABILITY

TABLE OF WDC2 BY WSC2
CONTROLLING FOR DTC=NEUTRAL

WDC2	WSC2									
FREQUENCY PERCENT	.	CALM	1-4	4-8	8-13	13-19	19-25	25-32	32-39	TOTAL
S	8	2	17	37	58	121	73	24	0	332
	.	0.07	0.58	1.26	1.97	4.11	2.48	0.82	0.00	11.28
SSW	9	0	8	26	48	65	70	36	5	258
	.	0.00	0.27	0.88	1.63	2.21	2.38	1.22	0.17	8.76
SW	1	1	7	20	40	34	20	15	3	140
	.	0.03	0.24	0.68	1.36	1.15	0.68	0.51	0.10	4.76
WSW	0	0	7	20	28	12	5	2	0	74
	.	0.00	0.24	0.68	0.95	0.41	0.17	0.07	0.00	2.51
W	1	3	15	18	15	3	4	0	0	58
	.	0.10	0.51	0.61	0.51	0.10	0.14	0.00	0.00	1.97
WNW	0	0	9	17	20	18	8	2	0	74
	.	0.00	0.31	0.58	0.68	0.61	0.27	0.07	0.00	2.51
NW	0	0	9	16	33	44	49	14	3	168
	.	0.00	0.31	0.54	1.12	1.49	1.66	0.48	0.10	5.71
NNW	0	0	9	16	47	77	73	26	2	250
	.	0.00	0.31	0.54	1.60	2.62	2.48	0.88	0.07	8.49
TOTAL	.	8	151	428	818	838	524	162	15	2944
	.	0.27	5.13	14.54	27.79	28.46	17.80	5.50	0.51	100.00

ECOLOGICAL ANALYSTS, INC.
COOPER NUCLEAR STATION DATA ANALYSIS
JOINT FREQUENCY OF OCCURRENCE
318 FOOT WIND SPEED VS. WIND DIRECTION ANALYSIS
JANUARY - DECEMBER 1981
WIND DIRECTION BY WIND SPEED BY STABILITY

TABLE OF WDC2 BY WSC2
CONTROLLING FOR DTC=SLIGHTLY STABLE

WDC2 WSC2

FREQUENCY PERCENT	.	CALM	1-4	4-8	8-13	13-19	19-25	25-32	32-39	TOTAL
.	32	0	0	1	1	1	2	0	0	.
	.	.	.	.	.	.	.	.	.	.
N	0	0	2	13	33	33	1	0	0	82
	.	0.00	0.10	0.64	1.63	1.63	0.05	0.00	0.00	4.06
NNE	0	0	6	9	23	22	1	0	0	61
	.	0.00	0.30	0.45	1.14	1.09	0.05	0.00	0.00	3.02
NE	0	0	3	15	30	17	4	2	0	71
	.	0.00	0.15	0.74	1.48	0.84	0.20	0.10	0.00	3.51
ENE	0	0	5	16	25	3	0	1	0	50
	.	0.00	0.25	0.79	1.24	0.15	0.00	0.05	0.00	2.47
E	0	0	8	16	23	2	0	0	0	49
	.	0.00	0.40	0.79	1.14	0.10	0.00	0.00	0.00	2.42
ESE	0	0	5	29	42	15	7	0	0	98
	.	0.00	0.25	1.43	2.08	0.74	0.35	0.00	0.00	4.85
SE	0	0	9	32	70	61	6	2	0	180
	.	0.00	0.45	1.58	3.46	3.02	0.30	0.10	0.00	8.91
SSE	0	0	14	24	52	97	20	1	0	208
	.	0.00	0.69	1.19	2.57	4.80	0.99	0.05	0.00	10.29
TOTAL	.	2	111	311	631	680	266	18	2	2021
	.	0.10	5.49	15.39	31.22	33.65	13.16	0.89	0.10	100.00

(CONTINUED)

ECOLOGICAL ANALYSTS, INC.
COOPER NUCLEAR STATION DATA ANALYSIS
JOINT FREQUENCY OF OCCURRENCE
318 FOOT WIND SPEED VS. WIND DIRECTION ANALYSIS
JANUARY - DECEMBER 1981
WIND DIRECTION BY WIND SPEED BY STABILITY

TABLE OF WDC2 BY WSC2
CONTROLLING FOR DTC=SLIGHTLY STABLE

WDC2 WSC2

FREQUENCY PERCENT	.	CALM	1-4	4-8	8-13	13-19	19-25	25-32	32-39	TOTAL
S	2	0	10	26	93	148	58	2	0	337
	.	0.00	0.49	1.29	4.60	7.32	2.87	0.10	0.00	16.67
SSW	7	0	4	19	74	104	74	5	2	282
	.	0.00	0.20	0.94	3.66	5.15	3.66	0.25	0.10	13.95
SW	2	0	6	18	40	38	28	4	0	134
	.	0.00	0.30	0.89	1.98	1.88	1.39	0.20	0.00	6.63
WSW	0	0	9	23	21	29	13	0	0	95
	.	0.00	0.45	1.14	1.04	1.43	0.64	0.00	0.00	4.70
W	0	1	8	22	17	18	9	0	0	75
	.	0.05	0.40	1.09	0.84	0.89	0.45	0.00	0.00	3.71
WNW	0	1	10	13	20	23	14	0	0	81
	.	0.05	0.49	0.64	0.99	1.14	0.69	0.00	0.00	4.01
NW	0	0	5	13	24	34	17	1	0	94
	.	0.00	0.25	0.64	1.19	1.68	0.84	0.05	0.00	4.65
NNW	0	0	7	23	44	36	14	0	0	124
	.	0.00	0.35	1.14	2.18	1.78	0.69	0.00	0.00	6.14
TOTAL	.	2	111	311	631	680	266	18	2	2021
	.	0.10	5.49	15.39	31.22	33.65	13.16	0.89	0.10	100.00

ECOLOGICAL ANALYSTS, INC.
COOPER NUCLEAR STATION DATA ANALYSIS
JOINT FREQUENCY OF OCCURRENCE
318 FOOT WIND SPEED VS. WIND DIRECTION ANALYSIS
JANUARY - DECEMBER 1981
WIND DIRECTION BY WIND SPEED BY STABILITY

TABLE OF WDC2 BY WSC2
CONTROLLING FOR DTC=MODERATELY STABL

WDC2 WSC2

FREQUENCY PERCENT	.	CALM	1-4	4-8	8-13	13-19	19-25	25-32	32-39	TOTAL
.	19	0	2	0	1	0	0	0	0	.
	.	.	.	.	.	.	.	.	.	.
N	0	1	0	14	14	2	0	0	0	31
	.	0.13	0.00	1.82	1.82	0.26	0.00	0.00	0.00	4.02
NNE	0	1	3	7	7	2	0	0	0	20
	.	0.13	0.39	0.91	0.91	0.26	0.00	0.00	0.00	2.59
NE	0	1	0	1	3	0	0	0	0	5
	.	0.13	0.00	0.13	0.39	0.00	0.00	0.00	0.00	0.65
ENE	0	0	1	9	5	0	0	0	0	15
	.	0.00	0.13	1.17	0.65	0.00	0.00	0.00	0.00	1.95
E	0	0	2	11	7	0	0	0	0	20
	.	0.00	0.26	1.43	0.91	0.00	0.00	0.00	0.00	2.59
ESE	0	0	2	11	6	0	0	0	0	19
	.	0.00	0.26	1.43	0.78	0.00	0.00	0.00	0.00	2.46
SE	0	1	5	7	15	11	3	0	0	42
	.	0.13	0.65	0.91	1.95	1.43	0.39	0.00	0.00	5.45
SSE	0	0	6	12	26	31	7	1	0	83
	.	0.00	0.78	1.56	3.37	4.02	0.91	0.13	0.00	10.77
TOTAL	.	8	58	169	258	216	60	1	1	771
	.	1.04	7.52	21.92	33.46	28.02	7.78	0.13	0.13	100.00

(CONTINUED)

ECOLOGICAL ANALYSTS, INC.
COOPER NUCLEAR STATION DATA ANALYSIS
JOINT FREQUENCY OF OCCURRENCE
318 FOOT WIND SPEED VS. WIND DIRECTION ANALYSIS
JANUARY - DECEMBER 1981
WIND DIRECTION BY WIND SPEED BY STABILITY

TABLE OF WDC2 BY WSC2
CONTROLLING FOR DTC=MODERATELY STABL

WDC2	WSC2									
FREQUENCY PERCENT	.	CALM	1-4	4-8	8-13	13-19	19-25	25-32	32-39	TOTAL
S	0	1	3	6	41	44	4	0	0	99
	.	0.13	0.39	0.78	5.32	5.71	0.52	0.00	0.00	12.84
SSW	0	0	4	4	25	33	10	0	0	76
	.	0.00	0.52	0.52	3.24	4.28	1.30	0.00	0.00	9.86
SW	0	0	4	17	27	32	14	0	1	95
	.	0.00	0.52	2.20	3.50	4.15	1.82	0.00	0.13	12.32
WSW	0	0	7	21	24	18	5	0	0	75
	.	0.00	0.91	2.72	3.11	2.33	0.65	0.00	0.00	9.73
W	0	1	3	13	14	12	4	0	0	47
	.	0.13	0.39	1.69	1.82	1.56	0.52	0.00	0.00	6.10
WNW	0	0	7	12	17	10	5	0	0	51
	.	0.00	0.91	1.56	2.20	1.30	0.65	0.00	0.00	6.61
NW	0	1	6	9	5	13	8	0	0	42
	.	0.13	0.78	1.17	0.65	1.69	1.04	0.00	0.00	5.45
NNW	0	1	5	15	22	8	0	0	0	51
	.	0.13	0.65	1.95	2.85	1.04	0.00	0.00	0.00	6.61
TOTAL	.	8	58	169	258	216	60	1	1	771
	.	1.04	7.52	21.92	33.46	28.02	7.78	0.13	0.13	100.00

ECOLOGICAL ANALYSTS, INC.
COOPER NUCLEAR STATION DATA ANALYSIS
JOINT FREQUENCY OF OCCURRENCE
318 FOOT WIND SPEED VS. WIND DIRECTION ANALYSIS
JANUARY - DECEMBER 1981
WIND DIRECTION BY WIND SPEED BY STABILITY

TABLE OF WDC2 BY WSC2
CONTROLLING FOR DTC=EXTREMELY STABLE

WDC2 WSC2

FREQUENCY PERCENT	.	CALM	1-4	4-8	8-13	13-19	19-25	25-32	32-39	TOTAL
.	15 .	0 .	3 .	0 .	5 .	3 .	0 .	0 .	0 .	. .
N	0 .	3 0.87	7 2.02	6 1.73	3 0.87	2 0.58	0 0.00	0 .	0 .	21 6.07
NNE	0 .	0 0.00	1 0.29	7 2.02	10 2.89	1 0.29	0 0.00	0 .	0 .	19 5.49
NE	0 .	0 0.00	3 0.87	8 2.31	4 1.16	0 0.00	0 0.00	0 .	0 .	15 4.34
ENE	0 .	0 0.00	0 0.00	6 1.73	3 0.87	0 0.00	0 0.00	0 .	0 .	9 2.60
E	0 .	0 0.00	4 1.16	3 0.87	1 0.29	0 0.00	0 0.00	0 .	0 .	8 2.31
ESE	0 .	0 0.00	5 1.45	3 0.87	0 0.00	0 0.00	0 0.00	0 .	0 .	8 2.31
SE	0 .	0 0.00	4 1.16	5 1.45	1 0.29	2 0.58	0 0.00	0 .	0 .	12 3.47
SSE	0 .	0 0.00	7 2.02	5 1.45	15 4.34	0 0.00	1 0.29	0 .	0 .	28 8.09
TOTAL	. .	12 3.47	58 16.76	118 34.10	120 34.68	31 8.96	7 2.02	. .	. .	346 100.00

(CONTINUED)

ECOLOGICAL ANALYSTS, INC.
COOPER NUCLEAR STATION DATA ANALYSIS
JOINT FREQUENCY OF OCCURRENCE
318 FOOT WIND SPEED VS. WIND DIRECTION ANALYSIS
JANUARY - DECEMBER 1981
WIND DIRECTION BY WIND SPEED BY STABILITY

TABLE OF WDC2 BY WSC2
CONTROLLING FOR DTC=EXTREMELY STABLE

WDC2	WSC2									
FREQUENCY PERCENT	.	CALM	1-4	4-8	8-13	13-19	19-25	25-32	32-39	TOTAL
S	0 .	0 0.00	5 1.45	9 2.60	9 2.60	0 0.00	0 0.00	0 .	0 .	23 6.65
SSW	0 .	0 0.00	2 0.58	4 1.16	10 2.89	3 0.87	0 0.00	0 .	0 .	19 5.49
SW	0 .	1 0.29	2 0.58	8 2.31	4 1.16	6 1.73	4 1.16	0 .	0 .	25 7.23
WSW	0 .	0 0.00	3 0.87	11 3.18	18 5.20	12 3.47	2 0.58	0 .	0 .	46 13.29
W	0 .	3 0.87	4 1.16	15 4.34	8 2.31	2 0.58	0 0.00	0 .	0 .	32 9.25
WNW	0 .	3 0.87	1 0.29	7 2.02	8 2.31	3 0.87	0 0.00	0 .	0 .	22 6.36
NW	0 .	2 0.58	2 0.58	9 2.60	11 3.18	0 0.00	0 0.00	0 .	0 .	24 6.94
NNW	0 .	0 0.00	8 2.31	12 3.47	15 4.34	0 0.00	0 0.00	0 .	0 .	35 10.12
TOTAL	. .	12 3.47	58 16.76	118 34.10	120 34.68	31 8.96	7 2.02	. .	. .	346 100.00

ECOLOGICAL ANALYSTS, INC.

COOPER NUCLEAR GENERATING STATION
JOINT FREQUENCY DISTRIBUTION DATA ANALYSIS
1 JULY 1981 TO 30 SEPTEMBER 1981
LOWER WIND SPEED VERSUS LOWER LEVEL WIND DIRECTION

TABLE OF WSC1 BY WDC1

WSC1 LOWER WIND SPEED CATEGORY WDC1 LOWER WIND DIRECTION CATEGORY

FREQUENCY PERCENT	.	N	NNE	NE	ENE	E	ESE	SE	SSE	TOTAL
.	19 .	2 .	0 .	0 .	1 .	0 .	0 .	1 .	2 .	. .
CALM	0 .	3 0.14	1 0.05	2 0.09	0 0.00	1 0.05	1 0.05	0 0.00	2 0.09	11 0.51
1-4	3 .	61 2.84	53 2.47	41 1.91	34 1.58	37 1.72	26 1.21	45 2.09	74 3.44	470 21.86
4-8	17 .	106 4.93	82 3.81	64 2.98	52 2.42	47 2.19	51 2.37	104 4.84	111 5.16	931 43.30
8-13	5 .	50 2.33	29 1.35	12 0.56	4 0.19	2 0.09	14 0.65	56 2.60	78 3.63	597 27.77
13-19	0 .	12 0.56	5 0.23	0 0.00	0 0.00	0 0.00	2 0.09	1 0.05	12 0.56	134 6.23
19-25	0 .	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	1 0.05	7 0.33
TOTAL	. .	232 10.79	170 7.91	119 5.53	90 4.19	87 4.05	94 4.37	206 9.58	278 12.93	2150 100.00

(CONTINUED)

ECOLOGICAL ANALYSTS, INC.

COOPER NUCLEAR GENERATING STATION
JOINT FREQUENCY DISTRIBUTION DATA ANALYSIS
1 JULY 1981 TO 30 SEPTEMBER 1981
LOWER WIND SPEED VERSUS LOWER LEVEL WIND DIRECTION

TABLE OF WSC1 BY WDC1

WSC1 LOWER WIND SPEED CATEGORY WDC1 LOWER WIND DIRECTION CATEGORY

FREQUENCY PERCENT	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
.	2 .	4 .	0 .	0 .	0 .	0 .	1 .	1 .	. .
CALM	0 0.00	0 0.00	0 0.00	1 0.05	0 0.00	0 0.00	0 0.00	0 0.00	11 0.51
1-4	40 1.86	11 0.51	7 0.33	3 0.14	8 0.37	5 0.23	4 0.19	21 0.98	470 21.86
4-8	95 4.42	59 2.74	32 1.49	12 0.56	18 0.84	16 0.74	21 0.98	61 2.84	931 43.30
8-13	137 6.37	63 2.93	62 2.88	17 0.79	7 0.33	8 0.37	18 0.84	40 1.86	597 27.77
13-19	24 1.12	37 1.72	13 0.60	3 0.14	1 0.05	2 0.09	2 0.09	20 0.93	134 6.23
19-25	0 0.00	2 0.09	0 0.00	1 0.05	0 0.00	0 0.00	1 0.05	2 0.09	7 0.33
TOTAL	296 13.77	172 8.00	114 5.30	37 1.72	34 1.58	31 1.44	46 2.14	144 6.70	2150 100.00

ECOLOGICAL ANALYSTS, INC.

COOPER NUCLEAR GENERATING STATION
JOINT FREQUENCY DISTRIBUTION DATA ANALYSIS
1 JULY 1981 TO 30 SEPTEMBER 1981
LOWER WIND SPEED VERSUS LOWER LEVEL WIND DIRECTION

TABLE OF WSC1 BY WDC1
CONTROLLING FOR DTC=EXTREMELY UNSTAB

WSC1 LOWER WIND SPEED CATEGORY WDC1 LOWER WIND DIRECTION CATEGORY

FREQUENCY PERCENT	.	N	NNE	NE	ENE	E	ESE	SE	SSE	TOTAL
.	1 .	0 .	0 .	0 .	0 .	0 .	0 .	1 .	0 .	. .
CALM	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 0.00
1-4	0 .	1 0.34	1 0.34	0 0.00	0 0.00	0 0.00	0 0.00	2 0.67	2 0.67	8 2.69
4-8	0 .	23 7.74	32 10.77	13 4.38	8 2.69	10 3.37	7 2.36	13 4.38	6 2.02	130 43.77
8-13	0 .	24 8.08	15 5.05	3 1.01	2 0.67	0 0.00	0 0.00	6 2.02	4 1.35	111 37.37
13-19	0 .	11 3.70	2 0.67	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	2 0.67	45 15.15
19-25	0 .	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	3 1.01
TOTAL	. .	59 19.87	50 16.84	16 5.39	10 3.37	10 3.37	7 2.36	21 7.07	14 4.71	297 100.00

(CONTINUED)

ECOLOGICAL ANALYSTS, INC.

COOPER NUCLEAR GENERATING STATION
JOINT FREQUENCY DISTRIBUTION DATA ANALYSIS
1 JULY 1981 TO 30 SEPTEMBER 1981
LOWER WIND SPEED VERSUS LOWER LEVEL WIND DIRECTION

TABLE OF WSC1 BY WDC1
CONTROLLING FOR DTC=EXTREMELY UNSTAB

WSC1 LOWER WIND SPEED CATEGORY WDC1 LOWER WIND DIRECTION CATEGORY

FREQUENCY PERCENT	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
.	0 .	0 .	0 .	0 .	0 .	0 .	1 .	1 .	. .
CALM	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 0.00
1-4	2 0.67	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	8 2.69
4-8	0 0.00	0 0.00	0 0.00	0 0.00	1 0.34	3 1.01	3 1.01	11 3.70	130 43.77
8-13	14 4.71	5 1.68	7 2.36	2 0.67	0 0.00	1 0.34	6 2.02	22 7.41	111 37.37
13-19	8 2.69	6 2.02	1 0.34	0 0.00	0 0.00	0 0.00	2 0.67	13 4.38	45 15.15
19-25	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	1 0.34	2 0.67	3 1.01
TOTAL	24 8.08	11 3.70	8 2.69	2 0.67	1 0.34	4 1.35	12 4.04	48 16.16	297 100.00

ECOLOGICAL ANALYSTS, INC.

COOPER NUCLEAR GENERATING STATION
JOINT FREQUENCY DISTRIBUTION DATA ANALYSIS
1 JULY 1981 TO 30 SEPTEMBER 1981
LOWER WIND SPEED VERSUS LOWER LEVEL WIND DIRECTION

TABLE OF WSC1 BY WDC1
CONTROLLING FOR DTC=MODERATELY UNSTA

WSC1 LOWER WIND SPEED CATEGORY WDC1 LOWER WIND DIRECTION CATEGORY

FREQUENCY PERCENT	.	N	NNE	NE	ENE	E	ESE	SE	SSE	TOTAL
.	1 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	. .
CALM	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 0.00
1-4	0 .	0 0.00	1 0.53	1 0.53	1 0.53	1 0.53	1 0.53	1 0.53	0 0.00	7 3.74
4-8	0 .	10 5.35	8 4.28	5 2.67	9 4.81	7 3.74	0 0.00	6 3.21	8 4.28	67 35.83
8-13	2 .	8 4.28	4 2.14	1 0.53	1 0.53	0 0.00	1 0.53	9 4.81	6 3.21	86 45.99
13-19	0 .	0 0.00	2 1.07	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	25 13.37
19-25	0 .	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	2 1.07
TOTAL	. .	18 9.63	15 8.02	7 3.74	11 5.88	8 4.28	2 1.07	16 8.56	14 7.49	187 100.00

(CONTINUED)

ECOLOGICAL ANALYSTS, INC.

COOPER NUCLEAR GENERATING STATION
JOINT FREQUENCY DISTRIBUTION DATA ANALYSIS
1 JULY 1981 TO 30 SEPTEMBER 1981
LOWER WIND SPEED VERSUS LOWER LEVEL WIND DIRECTION

TABLE OF WSC1 BY WDC1
CONTROLLING FOR DTC=MODERATELY UNSTA

WSC1 LOWER WIND SPEED CATEGORY WDC1 LOWER WIND DIRECTION CATEGORY

FREQUENCY PERCENT	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
.	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	. .
CALM	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 0.00
1-4	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	1 0.53	7 3.74
4-8	1 0.53	1 0.53	2 1.07	0 0.00	2 1.07	6 3.21	0 0.00	2 1.07	67 35.83
8-13	17 9.09	11 5.88	15 8.02	5 2.67	2 1.07	0 0.00	2 1.07	4 2.14	86 45.99
13-19	5 2.67	8 4.28	5 2.67	2 1.07	1 0.53	0 0.00	0 0.00	2 1.07	25 13.37
19-25	0 0.00	2 1.07	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	2 1.07
TOTAL	23 12.30	22 11.76	22 11.76	7 3.74	5 2.67	6 3.21	2 1.07	9 4.81	187 100.00

ECOLOGICAL ANALYSTS, INC.

COOPER NUCLEAR GENERATING STATION
JOINT FREQUENCY DISTRIBUTION DATA ANALYSIS
1 JULY 1981 TO 30 SEPTEMBER 1981
LOWER WIND SPEED VERSUS LOWER LEVEL WIND DIRECTION

TABLE OF WSC1 BY WDC1
CONTROLLING FOR DTC=SLIGHTLY UNSTABL

WSC1 LOWER WIND SPEED CATEGORY WDC1 LOWER WIND DIRECTION CATEGORY

FREQUENCY PERCENT	.	N	NNE	NE	ENE	E	ESE	SE	SSE	TOTAL
.	3 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	. .
CALM	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 0.00
1-4	0 .	0 0.00	0 0.00	1 0.59	2 1.18	1 0.59	0 0.00	2 1.18	1 0.59	7 4.12
4-8	0 .	6 3.53	5 2.94	2 1.18	6 3.53	4 2.35	1 0.59	5 2.94	4 2.35	56 32.94
8-13	0 .	8 4.71	0 0.00	1 0.59	0 0.00	0 0.00	6 3.53	10 5.88	10 5.88	82 48.24
13-19	0 .	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	2 1.18	0 0.00	3 1.76	25 14.71
19-25	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 0.00
TOTAL	. .	14 8.24	5 2.94	4 2.35	8 4.71	5 2.94	9 5.29	17 10.00	18 10.59	170 100.00

(CONTINUED)

ECOLOGICAL ANALYSTS, INC.

COOPER NUCLEAR GENERATING STATION
JOINT FREQUENCY DISTRIBUTION DATA ANALYSIS
1 JULY 1981 TO 30 SEPTEMBER 1981
LOWER WIND SPEED VERSUS LOWER LEVEL WIND DIRECTION

TABLE OF WSC1 BY WDC1
CONTROLLING FOR DTC=SLIGHTLY UNSTABL

WSC1 LOWER WIND SPEED CATEGORY WDC1 LOWER WIND DIRECTION CATEGORY

FREQUENCY PERCENT	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
.	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	. .
CALM	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 0.00
1-4	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	7 4.12
4-8	4 2.35	3 1.76	3 1.76	3 1.76	3 1.76	0 0.00	2 1.18	5 2.94	56 32.94
8-13	11 6.47	5 2.94	15 8.82	5 2.94	2 1.18	1 0.59	4 2.35	4 2.35	82 48.24
13-19	5 2.94	8 4.71	5 2.94	0 0.00	0 0.00	0 0.00	0 0.00	2 1.18	25 14.71
19-25	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 0.00
TOTAL	20 11.76	16 9.41	23 13.53	8 4.71	5 2.94	1 0.59	6 3.53	11 6.47	170 100.00

ECOLOGICAL ANALYSTS, INC.

COOPER NUCLEAR GENERATING STATION
JOINT FREQUENCY DISTRIBUTION DATA ANALYSIS
1 JULY 1981 TO 30 SEPTEMBER 1981
LOWER WIND SPEED VERSUS LOWER LEVEL WIND DIRECTION

TABLE OF WSC1 BY WDC1
CONTROLLING FOR DTC=NEUTRAL

WSC1 LOWER WIND SPEED CATEGORY WDC1 LOWER WIND DIRECTION CATEGORY

FREQUENCY PERCENT	.	N	NNE	NE	ENE	E	ESE	SE	SSE	TOTAL
.	0 .	1 .	0 .	0 .	1 .	0 .	0 .	0 .	0 .	. .
CALM	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 0.00
1-4	0 .	8 1.28	9 1.44	5 0.80	8 1.28	9 1.44	4 0.64	2 0.32	4 0.64	60 9.58
4-8	11 .	42 6.71	23 3.67	34 5.43	21 3.35	17 2.72	23 3.67	31 4.95	34 5.43	328 52.40
8-13	3 .	10 1.60	9 1.44	6 0.96	0 0.00	1 0.16	4 0.64	26 4.15	37 5.91	201 32.11
13-19	0 .	1 0.16	1 0.16	0 0.00	0 0.00	0 0.00	0 0.00	1 0.16	7 1.12	36 5.75
19-25	0 .	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	1 0.16	1 0.16
TOTAL	. .	61 9.74	42 6.71	45 7.19	29 4.63	27 4.31	31 4.95	60 9.58	83 13.26	626 100.00

(CONTINUED)

ECOLOGICAL ANALYSTS, INC.

COOPER NUCLEAR GENERATING STATION
JOINT FREQUENCY DISTRIBUTION DATA ANALYSIS
1 JULY 1981 TO 30 SEPTEMBER 1981
LOWER WIND SPEED VERSUS LOWER LEVEL WIND DIRECTION

TABLE OF WSC1 BY WDC1
CONTROLLING FOR DTC=NEUTRAL

WSC1 LOWER WIND SPEED CATEGORY WDC1 LOWER WIND DIRECTION CATEGORY

FREQUENCY PERCENT	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
.	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	. .
CALM	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 0.00
1-4	2 0.32	2 0.32	2 0.32	0 0.00	0 0.00	2 0.32	1 0.16	2 0.32	60 9.58
4-8	25 3.99	14 2.24	15 2.40	5 0.80	8 1.28	3 0.48	9 1.44	24 3.83	328 52.40
8-13	55 8.79	18 2.88	15 2.40	3 0.48	1 0.16	3 0.48	3 0.48	10 1.60	201 32.11
13-19	4 0.64	14 2.24	2 0.32	1 0.16	0 0.00	2 0.32	0 0.00	3 0.48	36 5.75
19-25	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	1 0.16
TOTAL	86 13.74	48 7.67	34 5.43	9 1.44	9 1.44	10 1.60	13 2.08	39 6.23	626 100.00

ECOLOGICAL ANALYSTS, INC.

COOPER NUCLEAR GENERATING STATION
JOINT FREQUENCY DISTRIBUTION DATA ANALYSIS
1 JULY 1981 TO 30 SEPTEMBER 1981
LOWER WIND SPEED VERSUS LOWER LEVEL WIND DIRECTION

TABLE OF WSC1 BY WDC1
CONTROLLING FOR DTC=SLIGHTLY STABLE

WSC1 LOWER WIND SPEED CATEGORY WDC1 LOWER WIND DIRECTION CATEGORY

FREQUENCY PERCENT	.	N	NNE	NE	ENE	E	ESE	SE	SSE	TOTAL
.	8 .	1 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	. .
CALM	0 .	1 0.17	0 0.00	0 0.00	0 0.00	1 0.17	0 0.00	0 0.00	1 0.17	3 0.51
1-4	0 .	33 5.66	25 4.29	20 3.43	12 2.06	14 2.40	10 1.72	16 2.74	22 3.77	189 32.42
4-8	5 .	21 3.60	12 2.06	9 1.54	8 1.37	8 1.37	18 3.09	48 8.23	53 9.09	287 49.23
8-13	0 .	0 0.00	1 0.17	1 0.17	1 0.17	1 0.17	3 0.51	4 0.69	15 2.57	100 17.15
13-19	0 .	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	3 0.51
19-25	0 .	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	1 0.17
TOTAL	. .	55 9.43	38 6.52	30 5.15	21 3.60	24 4.12	31 5.32	68 11.66	91 15.61	583 100.00

(CONTINUED)

ECOLOGICAL ANALYSTS, INC.

COOPER NUCLEAR GENERATING STATION
JOINT FREQUENCY DISTRIBUTION DATA ANALYSIS
1 JULY 1981 TO 30 SEPTEMBER 1981
LOWER WIND SPEED VERSUS LOWER LEVEL WIND DIRECTION

TABLE OF WSC1 BY WDC1
CONTROLLING FOR DTC=SLIGHTLY STABLE

WSC1 LOWER WIND SPEED CATEGORY WDC1 LOWER WIND DIRECTION CATEGORY

FREQUENCY! PERCENT	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
.	0 .	1 .	0 .	0 .	0 .	0 .	0 .	0 .	. .
CALM	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	3 0.51
1-4	12 2.06	4 0.69	3 0.51	1 0.17	5 0.86	1 0.17	2 0.34	9 1.54	189 32.42
4-8	50 8.58	22 3.77	8 1.37	2 0.34	4 0.69	3 0.51	6 1.03	15 2.57	287 49.23
8-13	40 6.86	24 4.12	3 0.51	1 0.17	1 0.17	2 0.34	3 0.51	0 0.00	100 17.15
13-19	2 0.34	1 0.17	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	3 0.51
19-25	0 0.00	0 0.00	0 0.00	1 0.17	0 0.00	0 0.00	0 0.00	0 0.00	1 0.17
TOTAL	104 17.84	51 8.75	14 2.40	5 0.86	10 1.72	6 1.03	11 1.89	24 4.12	583 100.00

ECOLOGICAL ANALYSTS, INC.

COOPER NUCLEAR GENERATING STATION
JOINT FREQUENCY DISTRIBUTION DATA ANALYSIS
1 JULY 1981 TO 30 SEPTEMBER 1981
LOWER WIND SPEED VERSUS LOWER LEVEL WIND DIRECTION

TABLE OF WSC1 BY WDC1
CONTROLLING FOR DTC=MODERATELY STABL

WSC1 LOWER WIND SPEED CATEGORY WDC1 LOWER WIND DIRECTION CATEGORY

FREQUENCY PERCENT	.	N	NNE	NE	ENE	E	ESE	SE	SSE	TOTAL
.	1 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	2 .	. .
CALM	0 .	2 1.14	1 0.57	0 0.00	0 0.00	0 0.00	1 0.57	0 0.00	0 0.00	4 2.29
1-4	3 .	10 5.71	15 8.57	11 6.29	6 3.43	5 2.86	6 3.43	8 4.57	20 11.43	114 65.14
4-8	0 .	3 1.71	1 0.57	0 0.00	0 0.00	0 0.00	0 0.00	1 0.57	6 3.43	48 27.43
8-13	0 .	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	9 5.14
13-19	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 0.00
19-25	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 0.00
TOTAL	. .	15 8.57	17 9.71	11 6.29	6 3.43	5 2.86	7 4.00	9 5.14	26 14.86	175 100.00

(CONTINUED)

ECOLOGICAL ANALYSTS, INC.

COOPER NUCLEAR GENERATING STATION
JOINT FREQUENCY DISTRIBUTION DATA ANALYSIS
1 JULY 1981 TO 30 SEPTEMBER 1981
LOWER WIND SPEED VERSUS LOWER LEVEL WIND DIRECTION

TABLE OF WSC1 BY WDC1
CONTROLLING FOR DTC=MODERATELY STABL

WSC1 LOWER WIND SPEED CATEGORY WDC1 LOWER WIND DIRECTION CATEGORY

FREQUENCY PERCENT	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
.	2 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	. .
CALM	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 .	0 0.00	4 2.29
1-4	16 9.14	3 1.71	1 0.57	2 1.14	3 1.71	1 0.57	0 .	7 4.00	114 65.14
4-8	14 8.00	17 9.71	4 2.29	0 0.00	0 0.00	1 0.57	0 .	1 0.57	48 27.43
8-13	0 0.00	0 0.00	6 3.43	1 0.57	1 0.57	1 0.57	0 .	0 0.00	9 5.14
13-19	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 0.00
19-25	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 0.00
TOTAL	30 17.14	20 11.43	11 6.29	3 1.71	4 2.29	3 1.71	. .	8 4.57	175 100.00

ECOLOGICAL ANALYSTS, INC.

COOPER NUCLEAR GENERATING STATION
JOINT FREQUENCY DISTRIBUTION DATA ANALYSIS
1 JULY 1981 TO 30 SEPTEMBER 1981
LOWER WIND SPEED VERSUS LOWER LEVEL WIND DIRECTION

TABLE OF WSC1 BY WDC1
CONTROLLING FOR DTC=EXTREMELY STABLE

WSC1 LOWER WIND SPEED CATEGORY WDC1 LOWER WIND DIRECTION CATEGORY

FREQUENCY PERCENT	.	N	NNE	NE	ENE	E	ESE	SE	SSE	TOTAL
.	3 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	. .
CALM	0 .	0 0.00	0 0.00	2 2.56	0 0.00	0 0.00	0 0.00	0 0.00	1 1.28	4 5.13
1-4	0 .	3 3.85	1 1.28	2 2.56	4 5.13	7 8.97	4 5.13	14 17.95	24 30.77	71 91.03
4-8	0 .	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	2 2.56
8-13	0 .	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	1 1.28
13-19	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 0.00
19-25	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 0.00
TOTAL	. .	3 3.85	1 1.28	4 5.13	4 5.13	7 8.97	4 5.13	14 17.95	25 32.05	78 100.00

(CONTINUED)

ECOLOGICAL ANALYSTS, INC.

COOPER NUCLEAR GENERATING STATION
JOINT FREQUENCY DISTRIBUTION DATA ANALYSIS
1 JULY 1981 TO 30 SEPTEMBER 1981
LOWER WIND SPEED VERSUS LOWER LEVEL WIND DIRECTION

TABLE OF WSC1 BY WDC1
CONTROLLING FOR DTC=EXTREMELY STABLE

WSC1 LOWER WIND SPEED CATEGORY WDC1 LOWER WIND DIRECTION CATEGORY

FREQUENCY PERCENT	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
.	0 .	2 .	0 .	0 .	0 .	0 .	0 .	0 .	. .
CALM	0 0.00	0 0.00	0 0.00	1 1.28	0 .	0 0.00	0 0.00	0 .	4 5.13
1-4	7 8.97	2 2.56	1 1.28	0 0.00	0 .	1 1.28	1 1.28	0 .	71 91.03
4-8	0 0.00	2 2.56	0 0.00	0 0.00	0 .	0 0.00	0 0.00	0 .	2 2.56
8-13	0 0.00	0 0.00	1 1.28	0 0.00	0 .	0 0.00	0 0.00	0 .	1 1.28
13-19	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 0.00
19-25	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 0.00
TOTAL	7 8.97	4 5.13	2 2.56	1 1.28	. .	1 1.28	1 1.28	. .	78 100.00

ECOLOGICAL ANALYSTS, INC.
COOPER NUCLEAR STATION DATA ANALYSIS
JOINT FREQUENCY OF OCCURRENCE
35 FOOT WINDSPEED VERSUS WIND DIRECTION
OCTOBER - DECEMBER 1981
WIND DIRECTION BY WIND SPEED

TABLE OF WDC1 BY WSC1

WDC1 / FREQUENCY / PERCENT	WSC1 .	CALM	1-4	4-8	8-13	13-19	19-25	25-32	TOTAL
.	28 .	5 .	13 .	21 .	25 .	7 .	0 .	0 .	. .
N	23 .	0 0.00	19 1.04	44 2.40	71 3.87	26 1.42	0 0.00	0 0.00	160 8.72
NNE	24 .	1 0.05	35 1.91	48 2.62	36 1.96	15 0.82	0 0.00	0 0.00	135 7.36
NE	10 .	2 0.11	24 1.31	29 1.58	5 0.27	4 0.22	0 0.00	0 0.00	64 3.49
ENE	13 .	2 0.11	12 0.65	15 0.82	4 0.22	1 0.05	0 0.00	0 0.00	34 1.85
E	10 .	1 0.05	16 0.87	18 0.98	8 0.44	0 0.00	0 0.00	0 0.00	43 2.34
ESE	10 .	1 0.05	19 1.04	32 1.74	21 1.14	8 0.44	0 0.00	0 0.00	81 4.41
SE	22 .	2 0.11	44 2.40	73 3.98	94 5.12	9 0.49	0 0.00	0 0.00	222 12.10
SSE	27 .	0 0.00	55 3.00	68 3.71	37 2.02	18 0.98	0 0.00	0 0.00	178 9.70
TOTAL	. .	15 0.82	342 18.64	533 29.05	599 32.64	287 15.64	52 2.83	7 0.38	1835 100.00

(CONTINUED)

ECOLOGICAL ANALYSTS, INC.
COOPER NUCLEAR STATION DATA ANALYSIS
JOINT FREQUENCY OF OCCURRENCE
35 FOOT WINDSPEED VERSUS WIND DIRECTION
OCTOBER - DECEMBER 1981
WIND DIRECTION BY WIND SPEED

TABLE OF WDC1 BY WSC1

WDC1 WSC1

FREQUENCY PERCENT	.	CALM	1-4	4-8	8-13	13-19	19-25	25-32	TOTAL
S	28	1	36	46	74	41	0	0	198
	.	0.05	1.96	2.51	4.03	2.23	0.00	0.00	10.79
SSW	18	1	25	37	49	34	2	0	148
	.	0.05	1.36	2.02	2.67	1.85	0.11	0.00	8.07
SW	8	1	13	20	30	20	0	0	84
	.	0.05	0.71	1.09	1.63	1.09	0.00	0.00	4.58
WSW	3	0	13	14	33	1	0	0	61
	.	0.00	0.71	0.76	1.80	0.05	0.00	0.00	3.32
W	9	1	10	21	15	4	1	0	52
	.	0.05	0.54	1.14	0.82	0.22	0.05	0.00	2.83
WNW	9	0	5	20	34	16	8	1	84
	.	0.00	0.27	1.09	1.85	0.87	0.44	0.05	4.58
NW	9	2	4	24	39	36	17	5	127
	.	0.11	0.22	1.31	2.13	1.96	0.93	0.27	6.92
NNW	16	0	12	24	49	54	24	1	164
	.	0.00	0.65	1.31	2.67	2.94	1.31	0.05	8.94
TOTAL	.	15	342	533	599	287	52	7	1835
	.	0.82	18.64	29.05	32.64	15.64	2.83	0.38	100.00

ECOLOGICAL ANALYSTS, INC.
COOPER NUCLEAR STATION DATA ANALYSIS
JOINT FREQUENCY OF OCCURRENCE
35 FOOT WINDSPEED VERSUS WIND DIRECTION
OCTOBER - DECEMBER 1981
STABILITY BY WIND DIRECTION BY WIND SPEED

TABLE OF WDC1 BY WSC1
CONTROLLING FOR DTC=EXTREMELY UNSTAB

WDC1 WSC1

FREQUENCY PERCENT	.	CALM	1-4	4-8	8-13	13-19	19-25	25-32	TOTAL
.	5 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	. .
N	2 .	0 .	0 0.00	1 1.11	11 12.22	3 3.33	0 0.00	0 0.00	15 16.67
NNE	4 .	0 .	2 2.22	4 4.44	4 4.44	1 1.11	0 0.00	0 0.00	11 12.22
NE	0 .	0 .	1 1.11	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	1 1.11
ENE	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 0.00
E	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 0.00
ESE	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 0.00
SE	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 0.00
SSE	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 0.00
TOTAL	. .	. .	4 4.44	5 5.56	41 45.56	25 27.78	13 14.44	2 2.22	90 100.00

(CONTINUED)

ECOLOGICAL ANALYSTS, INC.
COOPER NUCLEAR STATION DATA ANALYSIS
JOINT FREQUENCY OF OCCURRENCE
35 FOOT WINDSPEED VERSUS WIND DIRECTION
OCTOBER - DECEMBER 1981
STABILITY BY WIND DIRECTION BY WIND SPEED

TABLE OF WDC1 BY WSC1
CONTROLLING FOR DTC=EXTREMELY UNSTAB

WDC1 WSC1

FREQUENCY PERCENT	.	CALM	1-4	4-8	8-13	13-19	19-25	25-32	TOTAL
S	0 .	0 .	1 1.11	0 0.00	0 0.00	1 1.11	0 0.00	0 0.00	2 2.22
SSW	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 0.00
SW	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 0.00
WSW	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 0.00
W	0 .	0 .	0 0.00	0 0.00	1 1.11	0 0.00	0 0.00	0 0.00	1 1.11
WNW	0 .	0 .	0 0.00	0 0.00	5 5.56	1 1.11	3 3.33	0 0.00	9 10.00
NW	1 .	0 .	0 0.00	0 0.00	8 8.89	7 7.78	7 7.78	2 2.22	24 26.67
NNW	5 .	0 .	0 0.00	0 0.00	12 13.33	12 13.33	3 3.33	0 0.00	27 30.00
TOTAL	. .	. .	4 4.44	5 5.56	41 45.56	25 27.78	13 14.44	2 2.22	90 100.00

ECOLOGICAL ANALYSTS, INC.
COOPER NUCLEAR STATION DATA ANALYSIS
JOINT FREQUENCY OF OCCURRENCE
35 FOOT WINDSPEED VERSUS WIND DIRECTION
OCTOBER - DECEMBER 1981
STABILITY BY WIND DIRECTION BY WIND SPEED

TABLE OF WDC1 BY WSC1
CONTROLLING FOR DTC=MODERATELY UNSTA

WDC1 WSC1

FREQUENCY PERCENT	.	CALM	1-4	4-8	8-13	13-19	19-25	25-32	TOTAL
.	4 .	0 .	0 .	1 .	0 .	0 .	0 .	0 .	. .
N	2 .	0 .	0 0.00	4 4.82	7 8.43	5 6.02	0 0.00	0 0.00	16 19.28
NNE	3 .	0 .	0 0.00	4 4.82	4 4.82	1 1.20	0 0.00	0 0.00	9 10.84
NE	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 0.00
ENE	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 0.00
E	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 0.00
ESE	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 0.00
SE	1 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 0.00
SSE	1 .	0 .	0 0.00	0 0.00	0 0.00	4 4.82	0 0.00	0 0.00	4 4.82
TOTAL	. .	. .	1 1.20	12 14.46	24 28.92	38 45.78	5 6.02	3 3.61	83 100.00

(CONTINUED)

ECOLOGICAL ANALYSTS, INC.
COOPER NUCLEAR STATION DATA ANALYSIS
JOINT FREQUENCY OF OCCURRENCE
35 FOOT WINDSPEED VERSUS WIND DIRECTION
OCTOBER - DECEMBER 1981
STABILITY BY WIND DIRECTION BY WIND SPEED

TABLE OF WDC1 BY WSC1
CONTROLLING FOR DTC=MODERATELY UNSTA

WDC1 WSC1

FREQUENCY PERCENT	.	CALM	1-4	4-8	8-13	13-19	19-25	25-32	TOTAL
S	0 .	0 .	0 0.00	0 0.00	1 1.20	6 7.23	0 0.00	0 0.00	7 8.43
SSW	0 .	0 .	1 1.20	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	1 1.20
SW	0 .	0 .	0 0.00	0 0.00	0 0.00	3 3.61	0 0.00	0 0.00	3 3.61
WSW	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 0.00
W	3 .	0 .	0 0.00	0 0.00	1 1.20	1 1.20	1 1.20	0 0.00	3 3.61
WNW	0 .	0 .	0 0.00	0 0.00	2 2.41	1 1.20	0 0.00	1 1.20	4 4.82
NW	0 .	0 .	0 0.00	2 2.41	5 6.02	3 3.61	0 0.00	2 2.41	12 14.46
NNW	0 .	0 .	0 0.00	2 2.41	4 4.82	14 16.87	4 4.82	0 0.00	24 28.92
TOTAL	. .	. .	1 1.20	12 14.46	24 28.92	38 45.78	5 6.02	3 3.61	83 100.00

ECOLOGICAL ANALYSTS, INC.
COOPER NUCLEAR STATION DATA ANALYSIS
JOINT FREQUENCY OF OCCURRENCE
35 FOOT WINDSPEED VERSUS WIND DIRECTION
OCTOBER - DECEMBER 1981
STABILITY BY WIND DIRECTION BY WIND SPEED

TABLE OF WDC1 BY WSC1
CONTROLLING FOR DTC=SLIGHTLY UNSTABL

WDC1 WSC1

FREQUENCY PERCENT	.	CALM	1-4	4-8	8-13	13-19	19-25	25-32	TOTAL
.	1 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	. .
N	6 .	0 .	1 0.64	3 1.91	7 4.46	11 7.01	0 0.00	0 0.00	22 14.01
NNE	2 .	0 .	1 0.64	2 1.27	3 1.91	3 1.91	0 0.00	0 0.00	9 5.73
NE	1 .	0 .	0 0.00	2 1.27	0 0.00	0 0.00	0 0.00	0 0.00	2 1.27
ENE	0 .	0 .	0 0.00	1 0.64	0 0.00	0 0.00	0 0.00	0 0.00	1 0.64
E	0 .	0 .	1 0.64	2 1.27	0 0.00	0 0.00	0 0.00	0 0.00	3 1.91
ESE	0 .	0 .	2 1.27	4 2.55	2 1.27	0 0.00	0 0.00	0 0.00	8 5.10
SE	2 .	0 .	2 1.27	0 0.00	8 5.10	0 0.00	0 0.00	0 0.00	10 6.37
SSE	0 .	0 .	0 0.00	1 0.64	7 4.46	2 1.27	0 0.00	0 0.00	10 6.37
TOTAL	. .	. .	10 6.37	24 15.29	59 37.58	47 29.94	16 10.19	1 0.64	157 100.00

(CONTINUED)

ECOLOGICAL ANALYSTS, INC.
COOPER NUCLEAR STATION DATA ANALYSIS
JOINT FREQUENCY OF OCCURRENCE
35 FOOT WINDSPEED VERSUS WIND DIRECTION
OCTOBER - DECEMBER 1981
STABILITY BY WIND DIRECTION BY WIND SPEED

TABLE OF WDC1 BY WSC1
CONTROLLING FOR DTC=SLIGHTLY UNSTABL

WDC1	WSC1							
FREQUENCY PERCENT	.	CALM	1-4	4-8	8-13	13-19	19-25	25-32	TOTAL
S	3 .	0 .	1 0.64	2 1.27	11 7.01	0 0.00	0 0.00	0 0.00	14 8.92
SSW	1 .	0 .	0 0.00	2 1.27	5 3.18	6 3.82	0 0.00	0 0.00	13 8.28
SW	1 .	0 .	0 0.00	0 0.00	0 0.00	3 1.91	0 0.00	0 0.00	3 1.91
WSW	0 .	0 .	1 0.64	0 0.00	1 0.64	1 0.64	0 0.00	0 0.00	3 1.91
W	2 .	0 .	0 0.00	0 0.00	1 0.64	2 1.27	0 0.00	0 0.00	3 1.91
WNW	1 .	0 .	0 0.00	3 1.91	4 2.55	3 1.91	1 0.64	0 0.00	11 7.01
NW	0 .	0 .	0 0.00	0 0.00	5 3.18	4 2.55	2 1.27	0 0.00	11 7.01
NNW	0 .	0 .	1 0.64	2 1.27	5 3.18	12 7.64	13 8.28	1 0.64	34 21.66
TOTAL	. .	. .	10 6.37	24 15.29	59 37.58	47 29.94	16 10.19	1 0.64	157 100.00

ECOLOGICAL ANALYSTS, INC.
COOPER NUCLEAR STATION DATA ANALYSIS
JOINT FREQUENCY OF OCCURRENCE
35 FOOT WINDSPEED VERSUS WIND DIRECTION
OCTOBER - DECEMBER 1981
STABILITY BY WIND DIRECTION BY WIND SPEED

TABLE OF WDC1 BY WSC1
CONTROLLING FOR DTC=NEUTRAL

WDC1 WSC1

FREQUENCY PERCENT	.	CALM	1-4	4-8	8-13	13-19	19-25	25-32	TOTAL
.	13 .	0 .	0 .	7 .	22 .	7 .	0 .	0 .	. .
N	8 .	0 .	6 0.70	30 3.50	43 5.02	7 0.82	0 0.00	0 0.00	86 10.04
NNE	6 .	0 .	9 1.05	26 3.03	24 2.80	10 1.17	0 0.00	0 0.00	69 8.05
NE	3 .	0 .	8 0.93	25 2.92	5 0.58	4 0.47	0 0.00	0 0.00	42 4.90
ENE	4 .	0 .	4 0.47	14 1.63	4 0.47	1 0.12	0 0.00	0 0.00	23 2.68
E	1 .	0 .	8 0.93	15 1.75	8 0.93	0 0.00	0 0.00	0 0.00	31 3.62
ESE	1 .	0 .	6 0.70	25 2.92	17 1.98	8 0.93	0 0.00	0 0.00	56 6.53
SE	3 .	0 .	13 1.52	37 4.32	63 7.35	8 0.93	0 0.00	0 0.00	121 14.12
SSE	8 .	0 .	11 1.28	27 3.15	16 1.87	12 1.40	0 0.00	0 0.00	66 7.70
TOTAL	. .	. .	88 10.27	274 31.97	313 36.52	163 19.02	18 2.10	1 0.12	857 100.00

(CONTINUED)

ECOLOGICAL ANALYSTS, INC.
COOPER NUCLEAR STATION DATA ANALYSIS
JOINT FREQUENCY OF OCCURRENCE
35 FOOT WINDSPEED VERSUS WIND DIRECTION
OCTOBER - DECEMBER 1981
STABILITY BY WIND DIRECTION BY WIND SPEED

TABLE OF WDC1 BY WSC1
CONTROLLING FOR DTC=NEUTRAL

WDC1 WSC1

FREQUENCY PERCENT	.	CALM	1-4	4-8	8-13	13-19	19-25	25-32	TOTAL
S	10 .	0 .	3 0.35	13 1.52	27 3.15	28 3.27	0 0.00	0 0.00	71 8.28
SSW	6 .	0 .	6 0.70	10 1.17	14 1.63	28 3.27	2 0.23	0 0.00	60 7.00
SW	3 .	0 .	1 0.12	12 1.40	15 1.75	8 0.93	0 0.00	0 0.00	36 4.20
WSW	0 .	0 .	4 0.47	2 0.23	16 1.87	0 0.00	0 0.00	0 0.00	22 2.57
W	2 .	0 .	2 0.23	10 1.17	2 0.23	1 0.12	0 0.00	0 0.00	15 1.75
WNW	3 .	0 .	2 0.23	8 0.93	14 1.63	10 1.17	4 0.47	0 0.00	38 4.43
NW	2 .	0 .	1 0.12	7 0.82	18 2.10	22 2.57	8 0.93	1 0.12	57 6.65
NNW	8 .	0 .	4 0.47	13 1.52	27 3.15	16 1.87	4 0.47	0 0.00	64 7.47
TOTAL	. .	. .	88 10.27	274 31.97	313 36.52	163 19.02	18 2.10	1 0.12	857 100.00

ECOLOGICAL ANALYSTS, INC.
COOPER NUCLEAR STATION DATA ANALYSIS
JOINT FREQUENCY OF OCCURRENCE
35 FOOT WINDSPEED VERSUS WIND DIRECTION
OCTOBER - DECEMBER 1981
STABILITY BY WIND DIRECTION BY WIND SPEED

TABLE OF WDC1 BY WSC1
CONTROLLING FOR DTC=SLIGHTLY STABLE

WDC1 WSC1

FREQUENCY PERCENT	.	CALM	1-4	4-8	8-13	13-19	19-25	25-32	TOTAL
.	2 .	2 .	8 .	13 .	3 .	0 .	0 .	0 .	. .
N	4 .	0 .	6 1.43	5 1.19	3 0.72	0 0.00	0 .	0 .	14 3.34
NNE	4 .	0 .	13 3.10	12 2.86	1 0.24	0 0.00	0 .	0 .	26 6.21
NE	2 .	0 .	10 2.39	2 0.48	0 0.00	0 0.00	0 .	0 .	12 2.86
ENE	2 .	0 .	7 1.67	0 0.00	0 0.00	0 0.00	0 .	0 .	7 1.67
E	0 .	0 .	3 0.72	1 0.24	0 0.00	0 0.00	0 .	0 .	4 0.95
ESE	2 .	0 .	5 1.19	3 0.72	2 0.48	0 0.00	0 .	0 .	10 2.39
SE	6 .	0 .	16 3.82	23 5.49	21 5.01	1 0.24	0 .	0 .	61 14.56
SSE	8 .	0 .	15 3.58	25 5.97	12 2.86	0 0.00	0 .	0 .	52 12.41
TOTAL	. .	. .	120 28.64	154 36.75	133 31.74	12 2.86	. .	. .	419 100.00

(CONTINUED)

ECOLOGICAL ANALYSTS, INC.
COOPER NUCLEAR STATION DATA ANALYSIS
JOINT FREQUENCY OF OCCURRENCE
35 FOOT WINDSPEED VERSUS WIND DIRECTION
OCTOBER - DECEMBER 1981
STABILITY BY WIND DIRECTION BY WIND SPEED

TABLE OF WDC1 BY WSC1
CONTROLLING FOR DTC=SLIGHTLY STABLE

WDC1	WSC1							
FREQUENCY PERCENT	.	CALM	1-4	4-8	8-13	13-19	19-25	25-32	TOTAL
S	9	0	15	20	35	6	0	0	76
	.	.	3.58	4.77	8.35	1.43	.	.	18.14
SSW	3	0	6	15	26	0	0	0	47
	.	.	1.43	3.58	6.21	0.00	.	.	11.22
SW	0	0	9	6	9	4	0	0	28
	.	.	2.15	1.43	2.15	0.95	.	.	6.68
WSW	2	0	3	10	8	0	0	0	21
	.	.	0.72	2.39	1.91	0.00	.	.	5.01
W	1	0	4	8	4	0	0	0	16
	.	.	0.95	1.91	0.95	0.00	.	.	3.82
WNW	4	0	2	8	8	1	0	0	19
	.	.	0.48	1.91	1.91	0.24	.	.	4.53
NW	5	0	1	11	3	0	0	0	15
	.	.	0.24	2.63	0.72	0.00	.	.	3.58
NNW	3	0	5	5	1	0	0	0	11
	.	.	1.19	1.19	0.24	0.00	.	.	2.63
TOTAL	.	.	120	154	133	12	.	.	419
	.	.	28.64	36.75	31.74	2.86	.	.	100.00

ECOLOGICAL ANALYSTS, INC.
COOPER NUCLEAR STATION DATA ANALYSIS
JOINT FREQUENCY OF OCCURRENCE
35 FOOT WINDSPEED VERSUS WIND DIRECTION
OCTOBER - DECEMBER 1981
STABILITY BY WIND DIRECTION BY WIND SPEED

TABLE OF WDC1 BY WSC1
CONTROLLING FOR DTC=MODERATELY STABL

WDC1 WSC1

FREQUENCY PERCENT	.	CALM	1-4	4-8	8-13	13-19	19-25	25-32	TOTAL
.	3 .	3 .	5 .	0 .	0 .	0 .	0 .	0 .	. .
N	1 .	0 0.00	2 1.23	1 0.61	0 0.00	0 0.00	0 .	0 .	3 1.84
NNE	3 .	0 0.00	5 3.07	0 0.00	0 0.00	0 0.00	0 .	0 .	5 3.07
NE	3 .	1 0.61	3 1.84	0 0.00	0 0.00	0 0.00	0 .	0 .	4 2.45
ENE	3 .	1 0.61	0 0.00	0 0.00	0 0.00	0 0.00	0 .	0 .	1 0.61
E	3 .	1 0.61	2 1.23	0 0.00	0 0.00	0 0.00	0 .	0 .	3 1.84
ESE	2 .	0 0.00	4 2.45	0 0.00	0 0.00	0 0.00	0 .	0 .	4 2.45
SE	4 .	0 0.00	8 4.91	11 6.75	2 1.23	0 0.00	0 .	0 .	21 12.88
SSE	4 .	0 0.00	19 11.66	13 7.98	2 1.23	0 0.00	0 .	0 .	34 20.86
TOTAL	. .	3 1.84	75 46.01	55 33.74	28 17.18	2 1.23	. .	. .	163 100.00

(CONTINUED)

ECOLOGICAL ANALYSTS, INC.
COOPER NUCLEAR STATION DATA ANALYSIS
JOINT FREQUENCY OF OCCURRENCE
35 FOOT WINDSPEED VERSUS WIND DIRECTION
OCTOBER - DECEMBER 1981
STABILITY BY WIND DIRECTION BY WIND SPEED

TABLE OF WDC1 BY WSC1
CONTROLLING FOR DTC=MODERATELY STABL

WDC1	WSC1								
FREQUENCY PERCENT	.	CALM	1-4	4-8	8-13	13-19	19-25	25-32	TOTAL
S	4 .	0 0.00	12 7.36	7 4.29	0 0.00	0 0.00	0 .	0 .	19 11.66
SSW	5 .	0 0.00	7 4.29	10 6.13	4 2.45	0 0.00	0 .	0 .	21 12.88
SW	4 .	0 0.00	2 1.23	1 0.61	6 3.68	2 1.23	0 .	0 .	11 6.75
WSW	1 .	0 0.00	4 2.45	2 1.23	7 4.29	0 0.00	0 .	0 .	13 7.98
W	1 .	0 0.00	2 1.23	3 1.84	6 3.68	0 0.00	0 .	0 .	11 6.75
WNW	1 .	0 0.00	1 0.61	1 0.61	1 0.61	0 0.00	0 .	0 .	3 1.84
NW	1 .	0 0.00	2 1.23	4 2.45	0 0.00	0 0.00	0 .	0 .	6 3.68
NNW	0 .	0 0.00	2 1.23	2 1.23	0 0.00	0 0.00	0 .	0 .	4 2.45
TOTAL	. .	3 1.84	75 46.01	55 33.74	28 17.18	2 1.23	. .	. .	163 100.00

ECOLOGICAL ANALYSTS, INC.
COOPER NUCLEAR STATION DATA ANALYSIS
JOINT FREQUENCY OF OCCURRENCE
35 FOOT WINDSPEED VERSUS WIND DIRECTION
OCTOBER - DECEMBER 1981
STABILITY BY WIND DIRECTION BY WIND SPEED

TABLE OF WDC1 BY WSC1
CONTROLLING FOR DTC=EXTREMELY STABLE

WDC1 WSC1

FREQUENCY PERCENT	.	CALM	1-4	4-8	8-13	13-19	19-25	25-32	TOTAL
.	0 .	0 .	0 .	0 .	0 .	0 .	0 .	0 .	. .
N	0 .	0 0.00	4 6.06	0 0.00	0 0.00	0 .	0 .	0 .	4 6.06
NNE	2 .	1 1.52	5 7.58	0 0.00	0 0.00	0 .	0 .	0 .	6 9.09
NE	1 .	1 1.52	2 3.03	0 0.00	0 0.00	0 .	0 .	0 .	3 4.55
ENE	4 .	1 1.52	1 1.52	0 0.00	0 0.00	0 .	0 .	0 .	2 3.03
E	6 .	0 0.00	2 3.03	0 0.00	0 0.00	0 .	0 .	0 .	2 3.03
ESE	5 .	1 1.52	2 3.03	0 0.00	0 0.00	0 .	0 .	0 .	3 4.55
SE	6 .	2 3.03	5 7.58	2 3.03	0 0.00	0 .	0 .	0 .	9 13.64
SSE	6 .	0 0.00	10 15.15	2 3.03	0 0.00	0 .	0 .	0 .	12 18.18
TOTAL	. .	12 18.18	44 66.67	9 13.64	1 1.52	. .	. .	. .	66 100.00

(CONTINUED)

ECOLOGICAL ANALYSTS, INC.
COOPER NUCLEAR STATION DATA ANALYSIS
JOINT FREQUENCY OF OCCURRENCE
35 FOOT WINDSPEED VERSUS WIND DIRECTION
OCTOBER - DECEMBER 1981
STABILITY BY WIND DIRECTION BY WIND SPEED

TABLE OF WDC1 BY WSC1
CONTROLLING FOR DTC=EXTREMELY STABLE

WDC1 WSC1

FREQUENCY PERCENT	.	CALM	1-4	4-8	8-13	13-19	19-25	25-32	TOTAL
S	2	1	4	4	0	0	0	0	9
	.	1.52	6.06	6.06	0.00	.	.	.	13.64
SSW	3	1	5	0	0	0	0	0	6
	.	1.52	7.58	0.00	0.00	.	.	.	9.09
SW	0	1	1	1	0	0	0	0	3
	.	1.52	1.52	1.52	0.00	.	.	.	4.55
WSW	0	0	1	0	1	0	0	0	2
	.	0.00	1.52	0.00	1.52	.	.	.	3.03
W	0	1	2	0	0	0	0	0	3
	.	1.52	3.03	0.00	0.00	.	.	.	4.55
WNW	0	0	0	0	0	0	0	0	0
	.	.	.	.	.	.	.	.	0.00
NW	0	2	0	0	0	0	0	0	2
	.	3.03	0.00	0.00	0.00	.	.	.	3.03
NNW	0	0	0	0	0	0	0	0	0
	.	.	.	.	.	.	.	.	0.00
TOTAL	.	12	44	9	1	.	.	.	66
	.	18.18	66.67	13.64	1.52	.	.	.	100.00

ECOLOGICAL ANALYSTS, INC.
COOPER NUCLEAR STATION DATA ANALYSIS
JOINT FREQUENCY OF OCCURRENCE
35 FOOT WINDSPEED VERSUS WIND DIRECTION
JULY - DECEMBER 1981
WIND DIRECTION BY WIND SPEED

TABLE OF WDC1 BY WSC1

WDC1 WSC1

FREQUENCY! PERCENT !	.	CALM	1-4	4-8	8-13	13-19	19-25	25-32	TOTAL
.	45	5	15	36	30	7	0	0	.
	.	.	.	.	.	.	.	.	.
N	25	3	75	150	121	38	0	0	387
	.	0.08	1.90	3.79	3.06	0.96	0.00	0.00	9.79
NNE	24	2	87	129	65	20	0	0	303
	.	0.05	2.20	3.26	1.64	0.51	0.00	0.00	7.67
NE	10	4	64	92	17	4	0	0	181
	.	0.10	1.62	2.33	0.43	0.10	0.00	0.00	4.58
ENE	14	2	45	67	4	1	0	0	123
	.	0.05	1.14	1.69	0.20	0.03	0.00	0.00	3.11
E	10	2	53	64	10	0	0	0	129
	.	0.05	1.34	1.62	0.25	0.00	0.00	0.00	3.26
ESE	10	2	44	81	35	10	0	0	172
	.	0.05	1.11	2.05	0.89	0.25	0.00	0.00	4.35
SE	23	2	89	177	149	10	0	0	427
	.	0.05	2.25	4.48	3.77	0.25	0.00	0.00	10.80
SSE	29	2	128	179	109	30	1	0	449
	.	0.05	3.24	4.53	2.76	0.76	0.03	0.00	11.36
TOTAL	.	26	799	1452	1139	421	59	7	3953
	.	0.66	20.21	36.73	30.08	10.65	1.49	0.18	100.00

(CONTINUED)

ECOLOGICAL ANALYSTS, INC.
COOPER NUCLEAR STATION DATA ANALYSIS
JOINT FREQUENCY OF OCCURRENCE
35 FOOT WINDSPEED VERSUS WIND DIRECTION
JULY - DECEMBER 1981
WIND DIRECTION BY WIND SPEED

TABLE OF WDC1 BY WSC1

WDC1 WSC1

FREQUENCY! PERCENT !	.	CALM	1-4	4-8	8-13	13-19	19-25	25-32	TOTAL
S	30	1	75	140	211	65	0	0	492
	.	0.03	1.90	3.54	5.34	1.64	0.00	0.00	12.45
SSW	21	1	36	95	112	71	4	0	320
	.	0.03	0.91	2.43	2.83	1.80	0.10	0.00	8.10
SW	8	1	20	52	92	33	0	0	198
	.	0.03	0.51	1.32	2.33	0.83	0.00	0.00	5.01
WSW	3	1	16	24	50	4	1	0	96
	.	0.03	0.40	0.61	1.26	0.10	0.03	0.00	2.43
W	9	1	13	39	22	5	1	0	85
	.	0.03	0.46	0.99	0.56	0.13	0.03	0.00	2.13
WNW	9	0	10	35	42	13	8	1	116
	.	0.00	0.25	0.91	1.06	0.46	0.20	0.03	2.91
NW	10	2	8	44	57	33	18	5	172
	.	0.05	0.20	1.11	1.44	0.95	0.46	0.13	4.35
NNW	17	0	31	82	39	74	25	1	303
	.	0.00	0.78	2.07	2.25	1.87	0.66	0.03	7.67
TOTAL	.	26	799	1452	1189	421	59	7	3953
	.	0.66	20.21	36.73	30.08	10.65	1.49	0.18	100.00

ECOLOGICAL ANALYSTS, INC.
COOPER NUCLEAR STATION DATA ANALYSIS
JOINT FREQUENCY OF OCCURRENCE
35 FOOT WINDSPEED VERSUS WIND DIRECTION
JULY - DECEMBER 1981
STABILITY BY WIND DIRECTION BY WIND SPEED

TABLE OF WDC1 BY WSC1
CONTROLLING FOR DTC=EXTREMELY UNSTAB

WDC1 WSC1

FREQUENCY! PERCENT !	.	CALM	1-4	4-8	8-13	13-19	19-25	25-32	TOTAL
.	6	0	0	0	0	0	0	0	.
	.	.	.	.	.	.	.	.	.
N	2	0	1	24	35	14	0	0	74
	.	.	0.26	6.20	9.04	3.62	0.00	0.00	19.12
NNE	4	0	3	36	19	3	0	0	61
	.	.	0.78	9.30	4.91	0.78	0.00	0.00	15.75
NE	0	0	1	13	3	0	0	0	17
	.	.	0.26	3.36	0.78	0.00	0.00	0.00	4.39
ENE	0	0	0	3	2	0	0	0	10
	.	.	0.00	2.07	0.52	0.00	0.00	0.00	2.58
E	0	0	0	10	0	0	0	0	10
	.	.	0.00	2.58	0.00	0.00	0.00	0.00	2.58
ESE	0	0	0	7	0	0	0	0	7
	.	.	0.00	1.81	0.00	0.00	0.00	0.00	1.81
SE	1	0	2	13	6	0	0	0	21
	.	.	0.52	3.36	1.55	0.00	0.00	0.00	5.43
SSE	0	0	2	5	4	2	0	0	14
	.	.	0.52	1.55	1.03	0.52	0.00	0.00	3.62
TOTAL	.	.	12	135	152	70	16	2	387
	.	.	3.10	34.88	39.28	18.09	4.13	0.52	100.00

(CONTINUED)

ECOLOGICAL ANALYSTS, INC.
COOPER NUCLEAR STATION DATA ANALYSIS
JOINT FREQUENCY OF OCCURRENCE
35 FOOT WINDSPEED VERSUS WIND DIRECTION
JULY - DECEMBER 1981
STABILITY BY WIND DIRECTION BY WIND SPEED

TABLE OF WDC1 BY WSC1
CONTROLLING FOR DTC=EXTREMELY UNSTAB

WDC1 WSC1

FREQUENCY! PERCENT !	.	CALM	1-4	4-8	8-13	13-19	19-25	25-32	TOTAL
S	0 .	0 .	3 0.78	0 0.00	14 3.62	9 2.33	0 0.00	0 0.00	26 6.72
SSW	0 .	0 .	0 0.00	0 0.00	5 1.29	6 1.55	0 0.00	0 0.00	11 2.84
SW	0 .	0 .	0 0.00	0 0.00	7 1.81	1 0.26	0 0.00	0 0.00	8 2.07
WSW	0 .	0 .	0 0.00	0 0.00	2 0.52	0 0.00	0 0.00	0 0.00	2 0.52
W	0 .	0 .	0 0.00	1 0.26	1 0.26	0 0.00	0 0.00	0 0.00	2 0.52
WNW	0 .	0 .	0 0.00	3 0.78	6 1.55	1 0.26	3 0.78	0 0.00	13 3.36
NW	2 .	0 .	0 0.00	3 0.78	14 3.62	9 2.33	5 2.07	2 0.52	36 9.30
NNW	6 .	0 .	0 0.00	11 2.84	34 8.79	25 6.46	5 1.29	0 0.00	75 19.38
TOTAL	.	.	12 3.10	136 35.88	152 39.28	70 18.09	16 4.13	2 0.52	387 100.00

ECOLOGICAL ANALYSTS, INC.
COOPER NUCLEAR STATION DATA ANALYSIS
JOINT FREQUENCY OF OCCURRENCE
35 FOOT WINDSPEED VERSUS WIND DIRECTION
JULY - DECEMBER 1981
STABILITY BY WIND DIRECTION BY WIND SPEED

TABLE OF WDC1 BY WSC1
CONTROLLING FOR DTC=MODERATELY UNSTA

WDC1 WSC1

FREQUENCY! PERCENT !	.	CALM	1-4	4-8	8-13	13-19	19-25	25-32	TOTAL
.	5	0	0	1	2	0	0	0	.
	.	.	.	.	.	.	.	.	.
N	2	0	0	14	15	5	0	0	34
	.	.	0.00	5.19	5.56	1.85	0.00	0.00	12.59
NNE	3	0	1	12	8	3	0	0	24
	.	.	0.37	4.44	2.96	1.11	0.00	0.00	8.89
NE	0	0	1	5	1	0	0	0	7
	.	.	0.37	1.85	0.37	0.00	0.00	0.00	2.59
ENE	0	0	1	9	1	0	0	0	11
	.	.	0.37	3.33	0.37	0.00	0.00	0.00	4.07
E	0	0	1	7	0	0	0	0	8
	.	.	0.37	2.59	0.00	0.00	0.00	0.00	2.96
ESE	0	0	1	0	1	0	0	0	2
	.	.	0.37	0.00	0.37	0.00	0.00	0.00	0.74
SE	1	0	1	6	9	0	0	0	16
	.	.	0.37	2.22	3.33	0.00	0.00	0.00	5.93
SSE	1	0	0	8	6	4	0	0	18
	.	.	0.00	2.96	2.22	1.48	0.00	0.00	6.67
TOTAL	.	.	8	79	110	63	7	3	270
	.	.	2.96	29.26	40.74	23.33	2.59	1.11	100.00

(CONTINUED)

ECOLOGICAL ANALYSTS, INC.
COOPER NUCLEAR STATION DATA ANALYSIS
JOINT FREQUENCY OF OCCURRENCE
35 FOOT WINDSPEED VERSUS WIND DIRECTION
JULY - DECEMBER 1981
STABILITY BY WIND DIRECTION BY WIND SPEED

TABLE OF WDC1 BY WSC1
CONTROLLING FOR DTC=MODERATELY UNSTA

WDC1 WSC1

FREQUENCY! PERCENT !	.	CALM	1-4	4-8	8-13	13-19	19-25	25-32	TOTAL
S	0	0	0	1	18	11	0	0	30
	.	.	0.00	0.37	6.67	4.07	0.00	0.00	11.11
SSW	0	0	1	1	11	8	2	0	23
	.	.	0.37	0.37	4.07	2.96	0.74	0.00	8.52
SW	0	0	0	2	15	8	0	0	25
	.	.	0.00	0.74	5.56	2.96	0.00	0.00	9.25
WSW	0	0	0	0	5	2	0	0	7
	.	.	0.00	0.00	1.85	0.74	0.00	0.00	2.59
W	3	0	0	2	3	2	1	0	8
	.	.	0.00	0.74	1.11	0.74	0.37	0.00	2.96
WNW	0	0	0	6	2	1	0	1	10
	.	.	0.00	2.22	0.74	0.37	0.00	0.37	3.70
NW	0	0	0	2	7	3	0	2	14
	.	.	0.00	0.74	2.59	1.11	0.00	0.74	5.19
NNW	0	0	1	4	8	16	4	0	33
	.	.	0.37	1.48	2.96	5.93	1.48	0.00	12.22
TOTAL	.	.	8	79	110	63	7	3	270
	.	.	2.96	29.26	40.74	23.33	2.59	1.11	100.00

ECOLOGICAL ANALYSTS, INC.
COOPER NUCLEAR STATION DATA ANALYSIS
JOINT FREQUENCY OF OCCURRENCE
35 FOOT WINDSPEED VERSUS WIND DIRECTION
JULY - DECEMBER 1981
STABILITY BY WIND DIRECTION BY WIND SPEED

TABLE OF WDC1 BY WSC1
CONTROLLING FOR DTC=SLIGHTLY UNSTABL

WDC1 WSC1

FREQUENCY! PERCENT !	.	CALM	1-4	4-8	8-13	13-19	19-25	25-32	TOTAL
.	4	0	0	0	0	0	0	0	.
	.	.	.	.	.	.	.	.	.
N	5	0	1	9	15	11	0	0	36
	.	.	0.31	2.75	4.59	3.36	0.00	0.00	11.01
NNE	2	0	1	7	3	3	0	0	14
	.	.	0.31	2.14	0.92	0.92	0.00	0.00	4.28
NE	1	0	1	4	1	0	0	0	6
	.	.	0.31	1.22	0.31	0.00	0.00	0.00	1.83
ENE	0	0	2	7	0	0	0	0	9
	.	.	0.61	2.14	0.00	0.00	0.00	0.00	2.75
E	0	0	2	6	0	0	0	0	8
	.	.	0.61	1.83	0.00	0.00	0.00	0.00	2.45
ESE	0	0	2	5	8	2	0	0	17
	.	.	0.61	1.53	2.45	0.61	0.00	0.00	5.20
SE	2	0	4	5	18	0	0	0	27
	.	.	1.22	1.53	5.50	0.00	0.00	0.00	8.26
SSE	0	0	1	5	17	5	0	0	28
	.	.	0.31	1.53	5.20	1.53	0.00	0.00	8.56
TOTAL	.	.	17	30	141	72	16	1	327
	.	.	5.20	24.46	43.12	22.02	4.39	0.31	100.00

(CONTINUED)

ECOLOGICAL ANALYSTS, INC.
COOPER NUCLEAR STATION DATA ANALYSIS
JOINT FREQUENCY OF OCCURRENCE
35 FOOT WINDSPEED VERSUS WIND DIRECTION
JULY - DECEMBER 1981
STABILITY BY WIND DIRECTION BY WIND SPEED

TABLE OF WDC1 BY WSC1
CONTROLLING FOR DTC=SLIGHTLY UNSTABL

WDC1 WSC1

FREQUENCY! PERCENT !	.	CALM	1-4	4-8	8-13	13-19	19-25	25-32	TOTAL
S	3	0	1	6	22	5	0	0	34
	.	.	0.31	1.83	6.73	1.53	0.00	0.00	10.40
SSW	1	0	0	5	10	14	0	0	29
	.	.	0.00	1.53	3.06	4.29	0.00	0.00	3.87
SW	1	0	0	3	15	8	0	0	26
	.	.	0.00	0.92	4.59	2.45	0.00	0.00	7.95
WSW	0	0	1	3	6	1	0	0	11
	.	.	0.31	0.92	1.83	0.31	0.00	0.00	3.36
W	2	0	0	3	3	2	0	0	8
	.	.	0.00	0.92	0.92	0.61	0.00	0.00	2.45
WNW	1	0	0	3	5	3	1	0	12
	.	.	0.00	0.92	1.53	0.92	0.31	0.00	3.67
NW	0	0	0	2	9	4	2	0	17
	.	.	0.00	0.61	2.75	1.22	0.61	0.00	5.20
NNW	0	0	1	7	9	14	13	1	45
	.	.	0.31	2.14	2.75	4.28	3.98	0.31	13.76
TOTAL	.	.	17	80	141	72	16	1	327
	.	.	5.20	24.46	43.12	22.02	4.89	0.31	100.00

ECOLOGICAL ANALYSTS, INC.
COOPER NUCLEAR STATION DATA ANALYSIS
JOINT FREQUENCY OF OCCURRENCE
35 FOOT WINDSPEED VERSUS WIND DIRECTION
JULY - DECEMBER 1981
STABILITY BY WIND DIRECTION BY WIND SPEED

TABLE OF WDC1 BY WSC1
CONTROLLING FOR DTC=NEUTRAL

WDC1 WSC1

FREQUENCY! PERCENT !	.	CALM	1-4	4-8	8-13	13-19	19-25	25-32	TOTAL
.	13	0	0	17	25	7	0	0	.
	.	.	.	.	.	.	.	.	.
N	9	0	14	73	53	3	0	0	148
	.	.	0.94	4.92	3.57	0.54	0.00	0.00	9.97
NNE	6	0	18	49	33	11	0	0	111
	.	.	1.21	3.30	2.22	0.74	0.00	0.00	7.48
NE	3	0	13	59	11	4	0	0	87
	.	.	0.88	3.98	0.74	0.27	0.00	0.00	5.85
ENE	5	0	12	35	4	1	0	0	52
	.	.	0.81	2.36	0.27	0.07	0.00	0.00	3.50
E	1	0	17	32	9	0	0	0	53
	.	.	1.15	2.16	0.61	0.00	0.00	0.00	3.91
ESE	1	0	10	48	21	3	0	0	87
	.	.	0.67	3.23	1.42	0.54	0.00	0.00	5.86
SE	3	0	15	68	39	9	0	0	181
	.	.	1.01	4.58	6.00	0.61	0.00	0.00	12.20
SSE	8	0	15	61	53	19	1	0	149
	.	.	1.01	4.11	3.57	1.28	0.07	0.00	10.04
TOTAL	.	.	143	503	514	199	19	1	1484
	.	.	9.97	40.63	34.64	13.41	1.28	0.07	100.00

(CONTINUED)

ECOLOGICAL ANALYSTS, INC.
COOPER NUCLEAR STATION DATA ANALYSIS
JOINT FREQUENCY OF OCCURRENCE
35 FOOT WINDSPEED VERSUS WIND DIRECTION
JULY - DECEMBER 1981
STABILITY BY WIND DIRECTION BY WIND SPEED

TABLE OF WDC1 BY WSC1
CONTROLLING FOR DTC=NEUTRAL

WDC1 WSC1

FREQUENCY! PERCENT !	.	CALM	1-4	4-8	8-13	13-19	19-25	25-32	TOTAL
S	10	0	5	38	32	32	0	0	157
	.	.	0.34	2.56	5.53	2.16	0.00	0.00	10.58
SSW	6	0	8	24	32	42	2	0	108
	.	.	0.54	1.62	2.16	2.83	0.13	0.00	7.28
SW	3	0	3	27	30	10	0	0	70
	.	.	0.20	1.82	2.02	0.67	0.00	0.00	4.72
WSW	0	0	4	7	19	1	0	0	31
	.	.	0.27	0.47	1.28	0.07	0.00	0.00	2.09
W	2	0	2	13	3	1	0	0	24
	.	.	0.13	1.21	0.20	0.07	0.00	0.00	1.62
WNW	3	0	4	11	17	12	4	0	48
	.	.	0.27	0.74	1.15	0.81	0.27	0.00	3.23
NW	2	0	2	16	21	22	3	1	70
	.	.	0.13	1.08	1.42	1.48	0.54	0.07	4.72
NNW	8	0	6	37	37	19	4	0	103
	.	.	0.40	2.49	2.49	1.29	0.27	0.00	6.94
TOTAL	.	.	148	603	514	199	19	1	1484
	.	.	9.97	40.63	34.64	13.41	1.28	0.07	100.00

ECOLOGICAL ANALYSTS, INC.
COOPER NUCLEAR STATION DATA ANALYSIS
JOINT FREQUENCY OF OCCURRENCE
35 FOOT WINDSPEED VERSUS WIND DIRECTION
JULY - DECEMBER 1981
STABILITY BY WIND DIRECTION BY WIND SPEED

TABLE OF WDC1 BY WSC1
CONTROLLING FOR DTC=SLIGHTLY STABLE

WDC1 WSC1

FREQUENCY! PERCENT !	.	CALM	1-4	4-8	8-13	13-19	19-25	25-32	TOTAL
.	10	2	8	18	3	0	0	0	.
	.	.	.	.	.	.	.	.	.
N	5	1	39	26	3	0	0	0	69
	.	0.10	3.89	2.59	0.30	0.00	0.00	.	6.89
NNE	4	0	38	24	2	0	0	0	68
	.	0.00	3.79	2.40	0.20	0.00	0.00	.	6.79
NE	2	0	30	11	1	0	0	0	42
	.	0.00	2.99	1.10	0.10	0.00	0.00	.	4.19
ENE	2	0	19	8	1	0	0	0	28
	.	0.00	1.90	0.80	0.10	0.00	0.00	.	2.79
E	0	1	17	9	1	0	0	0	28
	.	0.10	1.70	0.90	0.10	0.00	0.00	.	2.79
ESE	2	0	15	21	5	0	0	0	41
	.	0.00	1.50	2.10	0.50	0.00	0.00	.	4.09
SE	6	0	32	71	25	1	0	0	129
	.	0.00	3.19	7.09	2.50	0.10	0.00	.	12.87
SSE	8	1	37	78	27	0	0	0	143
	.	0.10	3.69	7.78	2.69	0.00	0.00	.	14.27
TOTAL	.	3	309	441	233	15	1	.	1002
	.	0.30	30.84	44.01	23.25	1.50	0.10	.	100.00

(CONTINUED)

ECOLOGICAL ANALYSTS, INC.
COOPER NUCLEAR STATION DATA ANALYSIS
JOINT FREQUENCY OF OCCURRENCE
35 FOOT WINDSPEED VERSUS WIND DIRECTION
JULY - DECEMBER 1981
STABILITY BY WIND DIRECTION BY WIND SPEED

TABLE OF WDC1 BY WSC1
CONTROLLING FOR DTC=SLIGHTLY STABLE

WDC1 WSC1

FREQUENCY! PERCENT !	.	CALM	1-4	4-8	8-13	13-19	19-25	25-32	TOTAL
S	9	0	27	70	75	8	0	0	180
	.	0.00	2.69	6.99	7.49	0.80	0.00	.	17.96
SSW	4	0	10	37	50	1	0	0	98
	.	0.00	1.00	3.69	4.99	0.10	0.00	.	9.75
SW	0	0	12	14	12	4	0	0	42
	.	0.00	1.20	1.40	1.20	0.40	0.00	.	4.19
WSW	2	0	4	12	9	0	1	0	25
	.	0.00	0.40	1.20	0.90	0.00	0.10	.	2.59
W	1	0	9	12	5	0	0	0	25
	.	0.00	0.90	1.20	0.50	0.00	0.00	.	2.59
WNW	4	0	3	11	10	1	0	0	25
	.	0.00	0.30	1.10	1.00	0.10	0.00	.	2.50
NW	5	0	3	17	6	0	0	0	25
	.	0.00	0.30	1.70	0.60	0.00	0.00	.	2.59
NNW	3	0	14	20	1	0	0	0	35
	.	0.00	1.40	2.00	0.10	0.00	0.00	.	3.49
TOTAL	.	3	309	441	233	15	1	.	1002
	.	0.30	30.84	44.01	23.25	1.50	0.10	.	100.00

ECOLOGICAL ANALYSTS, INC.
COOPER NUCLEAR STATION DATA ANALYSIS
JOINT FREQUENCY OF OCCURRENCE
35 FOOT WINDSPEED VERSUS WIND DIRECTION
JULY - DECEMBER 1981
STABILITY BY WIND DIRECTION BY WIND SPEED

TABLE OF WDC1 BY WSC1
CONTROLLING FOR DTC=MODERATELY STABL

WDC1 WSC1

FREQUENCY! PERCENT !	.	CALM	1-4	4-8	8-13	13-19	19-25	25-32	TOTAL
.	4	3	7	0	0	0	0	0	.
	.	.	.	.	.	.	.	.	.
N	1	2	13	4	0	0	0	0	19
	.	0.59	3.93	1.18	0.00	0.00	.	.	5.60
NNE	3	1	20	1	0	0	0	0	22
	.	0.29	5.90	0.29	0.00	0.00	.	.	6.49
NE	3	1	14	0	0	0	0	0	15
	.	0.29	4.13	0.00	0.00	0.00	.	.	4.42
ENE	3	1	6	0	0	0	0	0	7
	.	0.29	1.77	0.00	0.00	0.00	.	.	2.06
E	3	1	7	0	0	0	0	0	8
	.	0.29	2.06	0.00	0.00	0.00	.	.	2.36
ESE	2	1	10	0	0	0	0	0	11
	.	0.29	2.95	0.00	0.00	0.00	.	.	3.24
SE	4	0	16	12	2	0	0	0	30
	.	0.00	4.72	3.54	0.59	0.00	.	.	8.85
SSE	6	0	39	19	2	0	0	0	60
	.	0.00	11.50	5.60	0.59	0.00	.	.	17.70
TOTAL	.	7	190	103	37	2	.	.	339
	.	2.06	56.05	30.38	10.91	0.59	.	.	100.00

(CONTINUED)

ECOLOGICAL ANALYSTS, INC.
COOPER NUCLEAR STATION DATA ANALYSIS
JOINT FREQUENCY OF OCCURRENCE
35 FOOT WINDSPEED VERSUS WIND DIRECTION
JULY - DECEMBER 1981
STABILITY BY WIND DIRECTION BY WIND SPEED

TABLE OF WDC1 BY WSC1
CONTROLLING FOR DTC=MODERATELY STABL

WDC1 WSC1

FREQUENCY! PERCENT !	.	CALM	1-4	4-8	8-13	13-19	19-25	25-32	TOTAL
S	6	0	28	21	0	0	0	0	49
	.	0.00	8.26	6.19	0.00	0.00	.	.	14.45
SSW	5	0	10	27	4	0	0	0	41
	.	0.00	2.95	7.96	1.18	0.00	.	.	12.09
SW	4	0	3	5	12	2	0	0	22
	.	0.00	0.88	1.47	3.54	0.59	.	.	6.49
WSW	1	0	6	2	8	0	0	0	16
	.	0.00	1.77	0.59	2.36	0.00	.	.	4.72
W	1	0	5	3	7	0	0	0	16
	.	0.00	1.47	0.88	2.06	0.00	.	.	4.42
WNW	1	0	2	2	2	0	0	0	6
	.	0.00	0.59	0.59	0.59	0.00	.	.	1.77
NW	1	0	2	4	0	0	0	0	6
	.	0.00	0.59	1.18	0.00	0.00	.	.	1.77
NNW	0	0	9	3	0	0	0	0	12
	.	0.00	2.65	0.88	0.00	0.00	.	.	3.54
TOTAL	.	7	190	103	37	2	.	.	339
	.	2.06	56.05	30.38	10.91	0.59	.	.	100.00

ECOLOGICAL ANALYSTS, INC.
COOPER NUCLEAR STATION DATA ANALYSIS
JOINT FREQUENCY OF OCCURRENCE
35 FOOT WINDSPEED VERSUS WIND DIRECTION
JULY - DECEMBER 1981
STABILITY BY WIND DIRECTION BY WIND SPEED

TABLE OF WDC1 BY WSC1
CONTROLLING FOR DTC=EXTREMELY STABLE

WDC1 WSC1

FREQUENCY! PERCENT !	.	CALM	1-4	4-8	8-13	13-19	19-25	25-32	TOTAL
.	3	0	0	0	0	0	0	0	.
	.	.	.	.	.	.	.	.	.
N	0	0	7	0	0	0	0	0	7
	.	0.00	4.86	0.00	0.00	.	.	.	4.86
NNE	2	1	6	0	0	0	0	0	7
	.	0.69	4.17	0.00	0.00	.	.	.	4.86
NE	1	3	4	0	0	0	0	0	7
	.	2.08	2.78	0.00	0.00	.	.	.	4.86
ENE	4	1	5	0	0	0	0	0	6
	.	0.69	3.47	0.00	0.00	.	.	.	4.17
E	6	0	9	0	0	0	0	0	9
	.	0.00	6.25	0.00	0.00	.	.	.	6.25
ESE	5	1	6	0	0	0	0	0	7
	.	0.69	4.17	0.00	0.00	.	.	.	4.86
SE	5	2	19	2	0	0	0	0	23
	.	1.39	13.19	1.39	0.00	.	.	.	15.97
SSE	6	1	34	2	0	0	0	0	37
	.	0.69	23.61	1.39	0.00	.	.	.	25.69
TOTAL	.	16	115	11	2	.	.	.	144
	.	11.11	79.86	7.64	1.39	.	.	.	100.00

(CONTINUED)

ECOLOGICAL ANALYSTS, INC.
COOPER NUCLEAR STATION DATA ANALYSIS
JOINT FREQUENCY OF OCCURRENCE
35 FOOT WINDSPEED VERSUS WIND DIRECTION
JULY - DECEMBER 1981
STABILITY BY WIND DIRECTION BY WIND SPEED

TABLE OF WDC1 BY WSC1
CONTROLLING FOR DTC=EXTREMELY STABLE

WDC1 WSC1

FREQUENCY! PERCENT !	.	CALM	1-4	4-8	8-13	13-19	19-25	25-32	TOTAL
S	2	1	11	4	0	0	0	0	16
	.	0.69	7.64	2.78	0.00	.	.	.	11.11
SSW	5	1	7	2	0	0	0	0	10
	.	0.69	4.86	1.39	0.00	.	.	.	6.94
SW	0	1	2	1	1	0	0	0	5
	.	0.69	1.39	0.69	0.69	.	.	.	3.47
WSW	0	1	1	0	1	0	0	0	3
	.	0.69	0.69	0.00	0.69	.	.	.	2.08
W	0	1	2	0	0	0	0	0	3
	.	0.69	1.39	0.00	0.00	.	.	.	2.08
WNW	0	0	1	0	0	0	0	0	1
	.	0.00	0.69	0.00	0.00	.	.	.	0.69
NW	0	2	1	0	0	0	0	0	3
	.	1.39	0.69	0.00	0.00	.	.	.	2.08
NNW	0	0	0	0	0	0	0	0	0
	.	.	.	.	.	.	.	.	0.00
TOTAL	.	16	115	11	2	.	.	.	144
	.	11.11	79.86	7.64	1.39	.	.	.	100.00

ECOLOGICAL ANALYSTS, INC.
COOPER NUCLEAR STATION DATA ANALYSIS
JOINT FREQUENCY OF OCCURRENCE
35 FOOT WINDSPEED VERSUS WIND DIRECTION
JANUARY - DECEMBER 1981
WIND DIRECTION BY WIND SPEED

TABLE OF WDC1 BY WSC1

WDC1 WSC1

FREQUENCY PERCENT	.	CALM	1-4	4-8	8-13	13-19	19-25	25-32	TOTAL
.	109 .	17 .	49 .	70 .	66 .	24 .	5 .	0 .	. .
N	26 .	4 0.05	148 1.84	263 3.27	268 3.33	104 1.29	10 0.12	9 0.11	806 10.01
NNE	27 .	3 0.04	165 2.05	232 2.88	162 2.01	75 0.93	10 0.12	0 0.00	647 8.03
NE	12 .	5 0.06	117 1.45	165 2.05	78 0.97	15 0.19	0 0.00	0 0.00	380 4.72
ENE	14 .	7 0.09	84 1.04	114 1.42	58 0.72	11 0.14	0 0.00	0 0.00	274 3.40
E	11 .	3 0.04	91 1.13	111 1.38	29 0.36	2 0.02	0 0.00	0 0.00	236 2.93
ESE	12 .	6 0.07	91 1.13	135 1.68	83 1.03	20 0.25	0 0.00	0 0.00	335 4.16
SE	24 .	7 0.09	149 1.85	270 3.35	248 3.08	36 0.45	1 0.01	0 0.00	711 8.83
SSE	30 .	5 0.06	240 2.98	258 3.20	209 2.59	60 0.74	14 0.17	0 0.00	786 9.76
TOTAL	.	49 0.61	1548 19.22	2542 31.56	2466 30.61	1104 13.71	284 3.53	62 0.77	8055 100.00

(CONTINUED)

ECOLOGICAL ANALYSTS, INC.
COOPER NUCLEAR STATION DATA ANALYSIS
JOINT FREQUENCY OF OCCURRENCE
35 FOOT WINDSPEED VERSUS WIND DIRECTION
JANUARY - DECEMBER 1981
WIND DIRECTION BY WIND SPEED

TABLE OF WDC1 BY WSC1

WDC1	WSC1								
FREQUENCY PERCENT	.	CALM	1-4	4-8	8-13	13-19	19-25	25-32	TOTAL
S	30 .	3 0.04	167 2.07	249 3.09	372 4.62	181 2.25	48 0.60	3 0.04	1023 12.70
SSW	21 .	1 0.01	85 1.06	191 2.37	197 2.45	157 1.95	53 0.66	25 0.31	709 8.80
SW	8 .	1 0.01	37 0.46	91 1.13	160 1.99	69 0.86	20 0.25	6 0.07	384 4.77
WSW	3 .	1 0.01	39 0.48	60 0.74	98 1.22	17 0.21	6 0.07	6 0.07	227 2.82
W	9 .	1 0.01	24 0.30	80 0.99	77 0.96	30 0.37	6 0.07	3 0.04	221 2.74
WNW	9 .	0 0.00	26 0.32	75 0.93	104 1.29	39 0.48	10 0.12	1 0.01	255 3.17
NW	11 .	2 0.02	19 0.24	96 1.19	138 1.71	118 1.46	27 0.34	5 0.06	405 5.03
NNW	17 .	0 0.00	66 0.82	152 1.89	185 2.30	170 2.11	79 0.98	4 0.05	656 8.14
TOTAL	. .	49 0.61	1548 19.22	2542 31.56	2466 30.61	1104 13.71	284 3.53	62 0.77	8055 100.00

ECOLOGICAL ANALYSTS, INC.
COOPER NUCLEAR STATION DATA ANALYSIS
JOINT FREQUENCY OF OCCURRENCE
35 FOOT WINDSPEED VERSUS WIND DIRECTION
JANUARY - DECEMBER 1981
STABILITY BY WIND DIRECTION BY WIND SPEED

TABLE OF WDC1 BY WSC1
CONTROLLING FOR DTC=EXTREMELY UNSTAB

WDC1	WSC1								
FREQUENCY PERCENT	.	CALM	1-4	4-8	8-13	13-19	19-25	25-32	TOTAL
.	21 .	0 .	6 .	3 .	8 .	6 .	2 .	0 .	. .
N	2 .	0 0.00	4 0.39	48 4.73	96 9.47	57 5.62	0 0.00	6 0.59	211 20.81
NNE	4 .	0 0.00	4 0.39	49 4.83	46 4.73	22 2.17	0 0.00	0 0.00	123 12.13
NE	0 .	0 0.00	6 0.59	26 2.56	15 1.48	0 0.00	0 0.00	0 0.00	47 4.64
ENE	0 .	1 0.10	6 0.59	22 2.17	8 0.79	0 0.00	0 0.00	0 0.00	37 3.65
E	0 .	0 0.00	3 0.30	18 1.78	2 0.20	0 0.00	0 0.00	0 0.00	23 2.27
ESE	0 .	0 0.00	1 0.10	11 1.08	3 0.30	0 0.00	0 0.00	0 0.00	15 1.48
SE	1 .	0 0.00	2 0.20	18 1.78	8 0.79	2 0.20	0 0.00	0 0.00	30 2.96
SSE	0 .	0 0.00	3 0.30	9 0.89	12 1.18	6 0.59	4 0.39	0 0.00	34 3.35
TOTAL	. .	1 0.10	37 3.65	258 25.44	348 34.32	247 24.36	95 9.37	28 2.76	1014 100.00

(CONTINUED)

ECOLOGICAL ANALYSTS, INC.
COOPER NUCLEAR STATION DATA ANALYSIS
JOINT FREQUENCY OF OCCURRENCE
35 FOOT WINDSPEED VERSUS WIND DIRECTION
JANUARY - DECEMBER 1981
STABILITY BY WIND DIRECTION BY WIND SPEED

TABLE OF WDC1 BY WSC1
CONTROLLING FOR DTC=EXTREMELY UNSTAB

WDC1 WSC1

FREQUENCY PERCENT	.	CALM	1-4	4-8	8-13	13-19	19-25	25-32	TOTAL
S	0	0	5	1	21	20	19	2	68
	.	0.00	0.49	0.10	2.07	1.97	1.87	0.20	6.71
SSW	0	0	0	4	11	10	12	9	46
	.	0.00	0.00	0.39	1.08	0.99	1.18	0.89	4.54
SW	0	0	0	3	7	2	7	3	22
	.	0.00	0.00	0.30	0.69	0.20	0.69	0.30	2.17
WSW	0	0	1	4	2	3	0	4	14
	.	0.00	0.10	0.39	0.20	0.30	0.00	0.39	1.38
W	0	0	0	3	5	5	2	1	16
	.	0.00	0.00	0.30	0.49	0.49	0.20	0.10	1.58
WNW	0	0	0	7	15	14	5	0	41
	.	0.00	0.00	0.69	1.48	1.38	0.49	0.00	4.04
NW	2	0	1	13	28	46	14	2	104
	.	0.00	0.10	1.28	2.76	4.54	1.38	0.20	10.26
NNW	6	0	1	22	67	60	32	1	183
	.	0.00	0.10	2.17	6.61	5.92	3.16	0.10	18.05
TOTAL	.	1	37	258	348	247	95	28	1014
	.	0.10	3.65	25.44	34.32	24.36	9.37	2.76	100.00

ECOLOGICAL ANALYSTS, INC.
COOPER NUCLEAR STATION DATA ANALYSIS
JOINT FREQUENCY OF OCCURRENCE
35 FOOT WINDSPEED VERSUS WIND DIRECTION
JANUARY - DECEMBER 1981
STABILITY BY WIND DIRECTION BY WIND SPEED

TABLE OF WDC1 BY WSC1
CONTROLLING FOR DTC=MODERATELY UNSTA

WDC1	WSC1							
FREQUENCY PERCENT	.	CALM	1-4	4-8	8-13	13-19	19-25	25-32	TOTAL
.	14 .	0 .	2 .	4 .	4 .	2 .	2 .	0 .	. .
N	2 .	0 .	0 0.00	19 3.49	30 5.50	11 2.02	2 0.37	3 0.55	65 11.93
NNE	3 .	0 .	4 0.73	20 3.67	12 2.20	11 2.02	3 0.55	0 0.00	50 9.17
NE	0 .	0 .	3 0.55	13 2.39	7 1.28	0 0.00	0 0.00	0 0.00	23 4.22
ENE	0 .	0 .	3 0.55	14 2.57	4 0.73	0 0.00	0 0.00	0 0.00	21 3.85
E	0 .	0 .	3 0.55	8 1.47	3 0.55	0 0.00	0 0.00	0 0.00	14 2.57
ESE	0 .	0 .	1 0.18	3 0.55	1 0.18	0 0.00	0 0.00	0 0.00	5 0.92
SE	1 .	0 .	1 0.18	8 1.47	19 3.49	3 0.55	0 0.00	0 0.00	31 5.69
SSE	1 .	0 .	0 0.00	10 1.83	12 2.20	4 0.73	1 0.18	0 0.00	27 4.95
TOTAL	. .	. .	19 3.49	140 25.69	210 38.53	124 22.75	38 6.97	14 2.57	545 100.00

(CONTINUED)

ECOLOGICAL ANALYSTS, INC.
COOPER NUCLEAR STATION DATA ANALYSIS
JOINT FREQUENCY OF OCCURRENCE
35 FOOT WINDSPEED VERSUS WIND DIRECTION
JANUARY - DECEMBER 1981
STABILITY BY WIND DIRECTION BY WIND SPEED

TABLE OF WDC1 BY WSC1
CONTROLLING FOR DTC=MODERATELY UNSTA

WDC1 WSC1

FREQUENCY PERCENT	.	CALM	1-4	4-8	8-13	13-19	19-25	25-32	TOTAL
S	0 .	0 .	1 0.18	5 0.92	27 4.95	25 4.59	8 1.47	1 0.18	67 12.29
SSW	0 .	0 .	1 0.18	4 0.73	16 2.94	12 2.20	7 1.28	5 0.92	45 8.26
SW	0 .	0 .	0 0.00	5 0.92	24 4.40	15 2.75	5 0.92	2 0.37	51 9.36
WSW	0 .	0 .	1 0.18	3 0.55	9 1.65	4 0.73	3 0.55	0 0.00	20 3.67
W	3 .	0 .	0 0.00	2 0.37	13 2.39	5 0.92	2 0.37	0 0.00	22 4.04
WNW	0 .	0 .	0 0.00	9 1.65	8 1.47	3 0.55	0 0.00	1 0.18	21 3.85
NW	0 .	0 .	0 0.00	6 1.10	10 1.83	9 1.65	0 0.00	2 0.37	27 4.95
NNW	0 .	0 .	1 0.18	11 2.02	15 2.75	22 4.04	7 1.28	0 0.00	56 10.28
TOTAL	. .	. .	19 3.49	140 25.69	210 38.53	124 22.75	38 6.97	14 2.57	545 100.00

ECOLOGICAL ANALYSTS, INC.
COOPER NUCLEAR STATION DATA ANALYSIS
JOINT FREQUENCY OF OCCURRENCE
35 FOOT WINDSPEED VERSUS WIND DIRECTION
JANUARY - DECEMBER 1981
STABILITY BY WIND DIRECTION BY WIND SPEED

TABLE OF WDC1 BY WSC1
CONTROLLING FOR DTC=SLIGHTLY UNSTABL

WDC1 WSC1

FREQUENCY PERCENT	.	CALM	1-4	4-8	8-13	13-19	19-25	25-32	TOTAL
.	8	0	2	4	4	0	0	0	.
	.	.	.	.	.	.	.	.	.
N	6	0	2	20	44	23	4	0	93
	.	.	0.29	2.92	6.42	3.36	0.58	0.00	13.58
NNE	2	0	3	10	15	10	3	0	41
	.	.	0.44	1.46	2.19	1.46	0.44	0.00	5.99
NE	1	0	1	8	5	0	0	0	14
	.	.	0.15	1.17	0.73	0.00	0.00	0.00	2.04
ENE	0	0	3	9	2	2	0	0	16
	.	.	0.44	1.31	0.29	0.29	0.00	0.00	2.34
E	0	0	3	15	4	1	0	0	23
	.	.	0.44	2.19	0.58	0.15	0.00	0.00	3.36
ESE	0	0	3	16	20	2	0	0	41
	.	.	0.44	2.34	2.92	0.29	0.00	0.00	5.99
SE	2	0	4	11	30	3	1	0	49
	.	.	0.58	1.61	4.38	0.44	0.15	0.00	7.15
SSE	0	0	5	11	25	8	1	0	50
	.	.	0.73	1.61	3.65	1.17	0.15	0.00	7.30
TOTAL	.	.	30	161	275	157	54	8	685
	.	.	4.38	23.50	40.15	22.92	7.88	1.17	100.00

(CONTINUED)

ECOLOGICAL ANALYSTS, INC.
COOPER NUCLEAR STATION DATA ANALYSIS
JOINT FREQUENCY OF OCCURRENCE
35 FOOT WINDSPEED VERSUS WIND DIRECTION
JANUARY - DECEMBER 1981
STABILITY BY WIND DIRECTION BY WIND SPEED

TABLE OF WDC1 BY WSC1
CONTROLLING FOR DTC=SLIGHTLY UNSTABL

WDC1	WSC1							
FREQUENCY PERCENT	.	CALM	1-4	4-8	8-13	13-19	19-25	25-32	TOTAL
S	3 .	0 .	2 0.29	9 1.31	27 3.94	18 2.63	9 1.31	0 0.00	65 9.49
SSW	1 .	0 .	1 0.15	12 1.75	18 2.63	25 3.65	8 1.17	1 0.15	65 9.49
SW	1 .	0 .	0 0.00	6 0.88	31 4.53	17 2.48	3 0.44	1 0.15	58 8.47
WSW	0 .	0 .	2 0.29	4 0.58	14 2.04	2 0.29	0 0.00	1 0.15	23 3.36
W	2 .	0 .	0 0.00	7 1.02	5 0.73	7 1.02	0 0.00	2 0.29	21 3.07
WNW	1 .	0 .	0 0.00	7 1.02	11 1.61	5 0.73	1 0.15	0 0.00	24 3.50
NW	0 .	0 .	0 0.00	4 0.58	12 1.75	9 1.31	2 0.29	0 0.00	27 3.94
NNW	0 .	0 .	1 0.15	12 1.75	12 1.75	25 3.65	22 3.21	3 0.44	75 10.95
TOTAL	. .	. .	30 4.38	161 23.50	275 40.15	157 22.92	54 7.88	8 1.17	685 100.00

ECOLOGICAL ANALYSTS, INC.
COOPER NUCLEAR STATION DATA ANALYSIS
JOINT FREQUENCY OF OCCURRENCE
35 FOOT WINDSPEED VERSUS WIND DIRECTION
JANUARY - DECEMBER 1981
STABILITY BY WIND DIRECTION BY WIND SPEED

TABLE OF WDC1 BY WSC1
CONTROLLING FOR DTC=NEUTRAL

WDC1 WSC1

FREQUENCY PERCENT	.	CALM	1-4	4-8	8-13	13-19	19-25	25-32	TOTAL
.	24	0	2	28	43	16	1	0	.
	.	.	.	.	.	.	.	.	.
N	10	0	23	115	92	13	4	0	247
	.	0.00	0.81	4.03	3.22	0.46	0.14	0.00	8.65
NNE	6	0	32	93	82	31	4	0	242
	.	0.00	1.12	3.26	2.87	1.09	0.14	0.00	8.47
NE	5	0	27	94	48	12	0	0	181
	.	0.00	0.95	3.29	1.68	0.42	0.00	0.00	6.34
ENE	5	1	20	56	43	9	0	0	129
	.	0.04	0.70	1.96	1.51	0.32	0.00	0.00	4.52
E	1	1	27	53	19	1	0	0	101
	.	0.04	0.95	1.86	0.67	0.04	0.00	0.00	3.54
ESE	1	0	14	70	52	18	0	0	154
	.	0.00	0.49	2.45	1.82	0.63	0.00	0.00	5.39
SE	3	0	20	103	139	27	0	0	289
	.	0.00	0.70	3.61	4.87	0.95	0.00	0.00	10.12
SSE	8	1	24	83	108	37	8	0	261
	.	0.04	0.84	2.91	3.78	1.30	0.28	0.00	9.14
TOTAL	.	3	246	959	1051	494	92	12	2857
	.	0.11	8.61	33.57	36.79	17.29	3.22	0.42	100.00

(CONTINUED)

ECOLOGICAL ANALYSTS, INC.
COOPER NUCLEAR STATION DATA ANALYSIS
JOINT FREQUENCY OF OCCURRENCE
35 FOOT WINDSPEED VERSUS WIND DIRECTION
JANUARY - DECEMBER 1981
STABILITY BY WIND DIRECTION BY WIND SPEED

TABLE OF WDC1 BY WSC1
CONTROLLING FOR DTC=NEUTRAL

WDC1 WSC1

FREQUENCY PERCENT	.	CALM	1-4	4-8	8-13	13-19	19-25	25-32	TOTAL
S	10	0	8	50	161	97	12	0	328
	.	0.00	0.28	1.75	5.64	3.40	0.42	0.00	11.48
SSW	6	0	15	42	54	88	22	10	231
	.	0.00	0.53	1.47	1.89	3.08	0.77	0.35	8.09
SW	3	0	4	35	45	17	5	0	106
	.	0.00	0.14	1.23	1.58	0.60	0.18	0.00	3.71
WSW	0	0	9	17	28	7	2	1	64
	.	0.00	0.32	0.60	0.98	0.25	0.07	0.04	2.24
W	2	0	2	33	17	8	2	0	62
	.	0.00	0.07	1.16	0.60	0.28	0.07	0.00	2.17
WNW	3	0	6	21	25	13	4	0	69
	.	0.00	0.21	0.74	0.88	0.46	0.14	0.00	2.42
NW	3	0	6	32	58	54	11	1	162
	.	0.00	0.21	1.12	2.03	1.89	0.39	0.04	5.67
NNW	8	0	9	62	80	62	18	0	231
	.	0.00	0.32	2.17	2.80	2.17	0.63	0.00	8.09
TOTAL	.	3	246	959	1051	494	92	12	2857
	.	0.11	8.61	33.57	36.79	17.29	3.22	0.42	100.00

ECOLOGICAL ANALYSTS, INC.
COOPER NUCLEAR STATION DATA ANALYSIS
JOINT FREQUENCY OF OCCURRENCE
35 FOOT WINDSPEED VERSUS WIND DIRECTION
JANUARY - DECEMBER 1981
STABILITY BY WIND DIRECTION BY WIND SPEED

TABLE OF WDC1 BY WSC1
CONTROLLING FOR DTC=SLIGHTLY STABLE

WDC1 WSC1

FREQUENCY PERCENT	.	CALM	1-4	4-8	8-13	13-19	19-25	25-32	TOTAL
.	28	2	21	31	6	0	0	0	.
	.	.	.	.	.	.	.	.	.
N	5	1	73	54	6	0	0	0	134
	.	0.05	3.80	2.81	0.31	0.00	0.00	.	6.97
NNE	6	0	73	57	5	1	0	0	136
	.	0.00	3.80	2.97	0.26	0.05	0.00	.	7.08
NE	2	0	54	24	3	3	0	0	84
	.	0.00	2.81	1.25	0.16	0.16	0.00	.	4.37
ENE	2	1	31	11	1	0	0	0	44
	.	0.05	1.61	0.57	0.05	0.00	0.00	.	2.29
E	0	1	25	15	1	0	0	0	42
	.	0.05	1.30	0.78	0.05	0.00	0.00	.	2.19
ESE	2	0	30	35	7	0	0	0	72
	.	0.00	1.56	1.82	0.36	0.00	0.00	.	3.75
SE	6	0	46	104	42	1	0	0	193
	.	0.00	2.39	5.41	2.19	0.05	0.00	.	10.04
SSE	8	1	62	114	48	5	0	0	230
	.	0.05	3.23	5.93	2.50	0.26	0.00	.	11.97
TOTAL	.	4	555	800	480	79	4	.	1922
	.	0.21	28.88	41.62	24.97	4.11	0.21	.	100.00

(CONTINUED)

ECOLOGICAL ANALYSTS, INC.
COOPER NUCLEAR STATION DATA ANALYSIS
JOINT FREQUENCY OF OCCURRENCE
35 FOOT WINDSPEED VERSUS WIND DIRECTION
JANUARY - DECEMBER 1981
STABILITY BY WIND DIRECTION BY WIND SPEED

TABLE OF WDC1 BY WSC1
CONTROLLING FOR DTC=SLIGHTLY STABLE

WDC1 WSC1

FREQUENCY PERCENT	.	CALM	1-4	4-8	8-13	13-19	19-25	25-32	TOTAL
S	9	0	56	137	133	21	0	0	347
	.	0.00	2.91	7.13	6.92	1.09	0.00	.	18.05
SSW	4	0	22	76	87	22	3	0	210
	.	0.00	1.14	3.95	4.53	1.14	0.16	.	10.93
SW	0	0	15	26	34	16	0	0	91
	.	0.00	0.78	1.35	1.77	0.83	0.00	.	4.73
WSW	2	0	7	23	23	1	1	0	55
	.	0.00	0.36	1.20	1.20	0.05	0.05	.	2.86
W	1	0	11	26	17	4	0	0	58
	.	0.00	0.57	1.35	0.88	0.21	0.00	.	3.02
WNW	4	0	9	22	32	4	0	0	67
	.	0.00	0.47	1.14	1.66	0.21	0.00	.	3.49
NW	5	0	8	35	30	0	0	0	73
	.	0.00	0.42	1.82	1.56	0.00	0.00	.	3.80
NNW	3	0	33	41	11	1	0	0	86
	.	0.00	1.72	2.13	0.57	0.05	0.00	.	4.47
TOTAL	.	4	555	800	480	79	4	.	1922
	.	0.21	28.88	41.62	24.97	4.11	0.21	.	100.00

ECOLOGICAL ANALYSTS, INC.
COOPER NUCLEAR STATION DATA ANALYSIS
JOINT FREQUENCY OF OCCURRENCE
35 FOOT WINDSPEED VERSUS WIND DIRECTION
JANUARY - DECEMBER 1981
STABILITY BY WIND DIRECTION BY WIND SPEED

TABLE OF WDC1 BY WSC1
CONTROLLING FOR DTC=MODERATELY STABL

WDC1 WSC1

FREQUENCY PERCENT	.	CALM	1-4	4-8	8-13	13-19	19-25	25-32	TOTAL
.	9	5	15	0	1	0	0	0	.
	.	.	.	.	.	.	.	.	.
N	1	2	34	7	0	0	0	0	43
	.	0.28	4.76	0.98	0.00	0.00	0.00	.	6.02
NNE	4	2	38	3	0	0	0	0	43
	.	0.28	5.32	0.42	0.00	0.00	0.00	.	6.02
NE	3	1	21	0	0	0	0	0	22
	.	0.14	2.94	0.00	0.00	0.00	0.00	.	3.08
ENE	3	1	12	2	0	0	0	0	15
	.	0.14	1.68	0.28	0.00	0.00	0.00	.	2.10
E	4	1	13	2	0	0	0	0	16
	.	0.14	1.82	0.28	0.00	0.00	0.00	.	2.24
ESE	4	3	24	0	0	0	0	0	27
	.	0.42	3.36	0.00	0.00	0.00	0.00	.	3.78
SE	5	1	34	23	10	0	0	0	68
	.	0.14	4.76	3.22	1.40	0.00	0.00	.	9.52
SSE	6	0	76	29	4	0	0	0	109
	.	0.00	10.64	4.06	0.56	0.00	0.00	.	15.27
TOTAL	.	11	407	201	91	3	1	.	714
	.	1.54	57.00	28.15	12.75	0.42	0.14	.	100.00

(CONTINUED)

ECOLOGICAL ANALYSTS, INC.
COOPER NUCLEAR STATION DATA ANALYSIS
JOINT FREQUENCY OF OCCURRENCE
35 FOOT WINDSPEED VERSUS WIND DIRECTION
JANUARY - DECEMBER 1981
STABILITY BY WIND DIRECTION BY WIND SPEED

TABLE OF WDC1 BY WSC1
CONTROLLING FOR DTC=MODERATELY STABL

WDC1	WSC1								
FREQUENCY PERCENT	.	CALM	1-4	4-8	8-13	13-19	19-25	25-32	TOTAL
S	6 .	0 0.00	67 9.38	43 6.02	3 0.42	0 0.00	0 0.00	0 .	113 15.83
SSW	5 .	0 0.00	28 3.92	45 6.30	11 1.54	0 0.00	1 0.14	0 .	85 11.90
SW	4 .	0 0.00	9 1.26	12 1.68	17 2.38	2 0.28	0 0.00	0 .	40 5.60
WSW	1 .	0 0.00	13 1.82	8 1.12	16 2.24	0 0.00	0 0.00	0 .	37 5.18
W	1 .	0 0.00	8 1.12	9 1.26	17 2.38	1 0.14	0 0.00	0 .	35 4.90
WNW	1 .	0 0.00	7 0.98	8 1.12	13 1.82	0 0.00	0 0.00	0 .	28 3.92
NW	1 .	0 0.00	3 0.42	6 0.84	0 0.00	0 0.00	0 0.00	0 .	9 1.26
NNW	0 .	0 0.00	20 2.80	4 0.56	0 0.00	0 0.00	0 0.00	0 .	24 3.36
TOTAL	. .	11 1.54	407 57.00	201 28.15	91 12.75	3 0.42	1 0.14	. .	714 100.00

ECOLOGICAL ANALYSTS, INC.
COOPER NUCLEAR STATION DATA ANALYSIS
JOINT FREQUENCY OF OCCURRENCE
35 FOOT WINDSPEED VERSUS WIND DIRECTION
JANUARY - DECEMBER 1981
STABILITY BY WIND DIRECTION BY WIND SPEED

TABLE OF WDC1 BY WSC1
CONTROLLING FOR DTC=EXTREMELY STABLE

WDC1	WSC1								
FREQUENCY PERCENT	.	CALM	1-4	4-8	8-13	13-19	19-25	25-32	TOTAL
.	5 .	10 .	1 .	0 .	0 .	0 .	0 .	0 .	. .
N	0 .	1 0.31	12 3.77	0 0.00	0 0.00	0 .	0 .	0 .	13 4.09
NNE	2 .	1 0.31	11 3.46	0 0.00	0 0.00	0 .	0 .	0 .	12 3.77
NE	1 .	4 1.26	5 1.57	0 0.00	0 0.00	0 .	0 .	0 .	9 2.83
ENE	4 .	3 0.94	9 2.83	0 0.00	0 0.00	0 .	0 .	0 .	12 3.77
E	6 .	0 0.00	17 5.35	0 0.00	0 0.00	0 .	0 .	0 .	17 5.35
ESE	5 .	3 0.94	18 5.66	0 0.00	0 0.00	0 .	0 .	0 .	21 6.60
SE	6 .	6 1.89	42 13.21	3 0.94	0 0.00	0 .	0 .	0 .	51 16.04
SSE	7 .	3 0.94	70 22.01	2 0.63	0 0.00	0 .	0 .	0 .	75 23.58
TOTAL	. .	30 9.43	254 79.87	23 7.23	11 3.46	. .	. .	. .	318 100.00

(CONTINUED)

ECOLOGICAL ANALYSTS, INC.
COOPER NUCLEAR STATION DATA ANALYSIS
JOINT FREQUENCY OF OCCURRENCE
35 FOOT WINDSPEED VERSUS WIND DIRECTION
JANUARY - DECEMBER 1981
STABILITY BY WIND DIRECTION BY WIND SPEED

TABLE OF WDC1 BY WSC1
CONTROLLING FOR DTC=EXTREMELY STABLE

WDC1 WSC1

FREQUENCY / PERCENT	.	CALM	1-4	4-8	8-13	13-19	19-25	25-32	TOTAL
S	2	3	28	4	0	0	0	0	35
	.	0.94	8.81	1.26	0.00	.	.	.	11.01
SSW	5	1	18	8	0	0	0	0	27
	.	0.31	5.66	2.52	0.00	.	.	.	8.49
SW	0	1	9	4	2	0	0	0	16
	.	0.31	2.83	1.26	0.63	.	.	.	5.03
WSW	0	1	6	1	6	0	0	0	14
	.	0.31	1.89	0.31	1.89	.	.	.	4.40
W	0	1	3	0	3	0	0	0	7
	.	0.31	0.94	0.00	0.94	.	.	.	2.20
WNW	0	0	4	1	0	0	0	0	5
	.	0.00	1.26	0.31	0.00	.	.	.	1.57
NW	0	2	1	0	0	0	0	0	3
	.	0.63	0.31	0.00	0.00	.	.	.	0.94
NNW	0	0	1	0	0	0	0	0	1
	.	0.00	0.31	0.00	0.00	.	.	.	0.31
TOTAL	.	30	254	23	11	.	.	.	318
	.	9.43	79.87	7.23	3.45	.	.	.	100.00

APPENDIX C

RADIOLOGICAL DOSE CALCULATION FROM AIRBORNE SOURCES

Five types of tables are presented: estimated concentration to emission ratios, estimated gamma radiation dose, individual radiation doses for selected sites, radiation doses for the ALARA population, and radiation doses for the NEPA population.

The tables of estimated concentration to emission ratios were generated using the computer model XOQDOQ discussed in Appendix D. Tables are presented for the vent stack and elevated release options separately, and the following time periods: July - September, October - December, July - December, and January - December 1981.

The tables of estimated gamma radiation dose were generated using the GASPAR computer model. The tables are for a combined vent stack and elevated release. The time periods are the same as the concentration to emission ratio tables.

The individual radiation doses at selected points were generated using the GASPAR computer model discussed in Appendix D. Two sites were selected for each quarterly period based on the predicted gamma radiation dose table; two locations outside the plant boundary for each quarter are given, one in the north quadrant and one in the south quadrant. Radiation dose is given for total body, gastrointestinal tract, bone, liver, kidney, thyroid, lung, and skin by seven pathways and four age groups.

Tables of radiation dose to the ALARA (As Low As Reasonably Achievable) population within 50 miles of the plant, and the NEPA (National Environmental Policy Act) population of the continental United States were generated using the GASPAR computer model. Tables are presented for each quarter covered by this report and are combined vent stack and elevated releases. Radiation doses to the eight body components listed above are given for seven pathways, for individual isotopes by pathway, and a total for each isotope.

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CONTENTS (CONT.)

COOPER NUCLEAR STATION - VENT RELEASE POINT - THIRD QUARTER 1981
NO DECAY, UNDEPLETED
CORRECTED FOR OPEN TERRAIN RECIRCULATION

ANNUAL AVERAGE CHI/Q (SEC/METER CUBED) DISTANCE IN MILES

SECTOR	0.250	0.500	0.750	1.000	1.500	2.000	2.500	3.000	3.500	4.000	4.500
S	3.064E-05	1.439E-05	8.976E-06	4.809E-06	2.010E-06	1.105E-06	7.061E-07	4.951E-07	3.698E-07	2.890E-07	2.337E-07
SSW	2.211E-05	1.067E-05	6.655E-06	3.552E-06	1.478E-06	8.114E-07	5.178E-07	3.629E-07	2.709E-07	2.117E-07	1.711E-07
SW	1.858E-05	8.711E-06	5.432E-06	2.971E-06	1.294E-06	7.338E-07	4.795E-07	3.422E-07	2.592E-07	2.050E-07	1.674E-07
WSW	1.444E-05	6.497E-06	3.927E-06	2.069E-06	8.491E-07	4.628E-07	2.940E-07	2.054E-07	1.530E-07	1.193E-07	9.634E-08
W	1.455E-05	7.141E-06	4.557E-06	2.471E-06	1.043E-06	5.769E-07	3.700E-07	2.603E-07	1.949E-07	1.527E-07	1.237E-07
WNW	1.506E-05	6.741E-06	4.246E-06	2.302E-06	9.749E-07	5.407E-07	3.476E-07	2.449E-07	1.836E-07	1.439E-07	1.167E-07
NW	3.202E-05	1.290E-05	7.745E-06	4.112E-06	1.714E-06	9.449E-07	6.057E-07	4.263E-07	3.194E-07	2.504E-07	2.031E-07
NNW	4.362E-05	1.905E-05	1.214E-05	6.669E-06	2.883E-06	1.623E-06	1.054E-06	7.493E-07	5.658E-07	4.464E-07	3.638E-07
N	4.138E-05	1.658E-05	9.676E-06	5.022E-06	2.040E-06	1.109E-06	7.045E-07	4.923E-07	3.670E-07	2.864E-07	2.314E-07
NNE	2.360E-05	8.717E-06	4.843E-06	2.453E-06	9.729E-07	5.224E-07	3.292E-07	2.288E-07	1.698E-07	1.321E-07	1.064E-07
NE	1.336E-05	4.772E-06	2.597E-06	1.300E-06	5.076E-07	2.695E-07	1.684E-07	1.162E-07	8.575E-08	6.637E-08	5.324E-08
ENE	3.723E-06	1.443E-06	9.124E-07	5.348E-07	2.590E-07	1.565E-07	1.067E-07	7.843E-08	6.079E-08	4.895E-08	4.058E-08
E	5.265E-06	2.344E-06	1.380E-06	7.111E-07	2.846E-07	1.530E-07	9.630E-08	6.683E-08	4.952E-08	3.846E-08	3.093E-08
ESE	4.095E-06	1.604E-06	9.343E-07	4.866E-07	1.985E-07	1.081E-07	6.865E-08	4.798E-08	3.577E-08	2.791E-08	2.255E-08
SE	5.384E-06	1.970E-06	1.088E-06	5.512E-07	2.191E-07	1.176E-07	7.397E-08	5.132E-08	3.802E-08	2.953E-08	2.375E-08
SSE	1.559E-05	6.298E-06	3.593E-06	1.832E-06	7.292E-07	3.909E-07	2.457E-07	1.703E-07	1.261E-07	9.785E-08	7.865E-08

ANNUAL AVERAGE CHI/Q (SEC/METER CUBED) DISTANCE IN MILES

BEARING	5.000	7.500	10.000	15.000	20.000	25.000	30.000	35.000	40.000	45.000	50.000
S	1.940E-07	1.008E-07	6.577E-08	3.803E-08	2.588E-08	1.924E-08	1.511E-08	1.233E-08	1.035E-08	8.865E-09	7.724E-09
SSW	1.421E-07	7.385E-08	4.820E-08	2.790E-08	1.899E-08	1.412E-08	1.110E-08	9.060E-09	7.604E-09	6.517E-09	5.680E-09
SW	1.402E-07	7.517E-08	5.007E-08	2.977E-08	2.064E-08	1.556E-08	1.237E-08	1.019E-08	8.621E-09	7.441E-09	6.526E-09
WSW	7.991E-08	4.144E-08	2.702E-08	1.565E-08	1.068E-08	7.956E-09	6.264E-09	5.123E-09	4.306E-09	3.697E-09	3.227E-09
W	1.029E-07	5.386E-08	3.533E-08	2.061E-08	1.412E-08	1.055E-08	8.322E-09	6.817E-09	5.739E-09	4.933E-09	4.310E-09
WNW	9.711E-08	5.086E-08	3.337E-08	1.945E-08	1.331E-08	9.933E-09	7.830E-09	6.409E-09	5.391E-09	4.630E-09	4.042E-09
NW	1.691E-07	8.892E-08	5.855E-08	3.434E-08	2.364E-08	1.773E-08	1.403E-08	1.153E-08	9.725E-09	8.376E-09	7.332E-09
NNW	3.042E-07	1.623E-07	1.078E-07	6.392E-08	4.428E-08	3.336E-08	2.650E-08	2.183E-08	1.847E-08	1.594E-08	1.398E-08
N	1.920E-07	9.969E-08	6.508E-08	3.771E-08	2.573E-08	1.916E-08	1.508E-08	1.233E-08	1.036E-08	8.887E-09	7.753E-09
NNE	8.811E-08	4.542E-08	2.952E-08	1.702E-08	1.158E-08	8.604E-09	6.761E-09	5.519E-09	4.633E-09	3.972E-09	3.462E-09
NE	4.395E-08	2.242E-08	1.447E-08	8.282E-09	5.624E-09	4.176E-09	3.279E-09	2.675E-09	2.245E-09	1.924E-09	1.677E-09
ENE	3.443E-08	1.930E-08	1.321E-08	8.134E-09	5.778E-09	4.433E-09	3.571E-09	2.975E-09	2.540E-09	2.211E-09	1.952E-09
E	2.558E-08	1.310E-08	8.471E-09	4.847E-09	3.280E-09	2.428E-09	1.901E-09	1.547E-09	1.295E-09	1.107E-09	9.628E-10
ESE	1.873E-08	9.776E-09	6.405E-09	3.731E-09	2.554E-09	1.908E-09	1.506E-09	1.234E-09	1.039E-09	8.930E-10	7.804E-10
SE	1.964E-08	1.005E-08	6.503E-09	3.729E-09	2.532E-09	1.880E-09	1.476E-09	1.204E-09	1.010E-09	8.661E-10	7.549E-10
SSE	6.499E-08	3.323E-08	2.146E-08	1.226E-08	8.290E-09	6.132E-09	4.800E-09	3.905E-09	3.269E-09	2.795E-09	2.431E-09

COOPER NUCLEAR STATION - ELEVATED RELEASE POINT - THIRD QUARTER 1981
NO DECAY, UNDEPLETED
CORRECTED FOR OPEN TERRAIN RECIRCULATION

ANNUAL AVERAGE CHI/Q (SEC/METER CUBED) DISTANCE IN MILES

SECTOR	0.250	0.500	0.750	1.000	1.500	2.000	2.500	3.000	3.500	4.000	4.500
S	1.620E-05	5.128E-06	2.629E-06	1.284E-06	4.972E-07	2.645E-07	1.659E-07	1.150E-07	8.523E-08	6.623E-08	5.331E-08
SSW	9.093E-06	2.891E-06	1.496E-06	7.369E-07	2.867E-07	1.531E-07	9.642E-08	6.710E-08	4.990E-08	3.890E-08	3.141E-08
SW	8.888E-06	2.896E-06	1.496E-06	7.326E-07	2.820E-07	1.494E-07	9.350E-08	6.474E-08	4.794E-08	3.723E-08	2.996E-08
WSW	9.412E-06	3.124E-06	1.616E-06	7.896E-07	3.042E-07	1.615E-07	1.013E-07	7.032E-08	5.218E-08	4.059E-08	3.272E-08
W	1.122E-05	3.784E-06	2.000E-06	9.909E-07	3.873E-07	2.078E-07	1.315E-07	9.193E-08	6.867E-08	5.374E-08	4.354E-08
WNW	1.584E-05	5.413E-06	2.837E-06	1.391E-06	5.362E-07	2.844E-07	1.781E-07	1.232E-07	9.112E-08	7.066E-08	5.676E-08
NW	2.237E-05	7.680E-06	4.037E-06	1.986E-06	7.688E-07	4.103E-07	2.588E-07	1.807E-07	1.349E-07	1.056E-07	8.555E-08
NNW	2.647E-05	8.954E-06	4.724E-06	2.334E-06	9.071E-07	4.837E-07	3.043E-07	2.117E-07	1.574E-07	1.227E-07	9.905E-08
N	2.733E-05	9.167E-06	4.823E-06	2.386E-06	9.288E-07	4.952E-07	3.110E-07	2.158E-07	1.600E-07	1.244E-07	1.002E-07
NNE	1.912E-05	6.450E-06	3.424E-06	1.700E-06	6.620E-07	3.519E-07	2.202E-07	1.523E-07	1.126E-07	8.730E-08	7.015E-08
NE	1.471E-05	4.895E-06	2.560E-06	1.257E-06	4.846E-07	2.574E-07	1.614E-07	1.119E-07	8.289E-08	6.441E-08	5.184E-08
ENE	1.093E-05	3.579E-06	1.892E-06	9.399E-07	3.683E-07	1.978E-07	1.252E-07	8.750E-08	6.531E-08	5.108E-08	4.137E-08
E	8.082E-06	2.549E-06	1.355E-06	6.838E-07	2.737E-07	1.504E-07	9.764E-08	6.998E-08	5.349E-08	4.276E-08	3.531E-08
ESE	4.832E-06	1.515E-06	7.997E-07	4.003E-07	1.587E-07	8.601E-08	5.486E-08	3.862E-08	2.903E-08	2.286E-08	1.864E-08
SE	7.765E-06	2.567E-06	1.363E-06	6.796E-07	2.575E-07	1.440E-07	9.114E-08	6.367E-08	4.750E-08	3.712E-08	3.003E-08
SSE	1.526E-05	5.113E-06	2.689E-06	1.327E-06	5.178E-07	2.770E-07	1.745E-07	1.214E-07	9.023E-08	7.028E-08	5.669E-08

ANNUAL AVERAGE CHI/Q (SEC/METER CUBED) DISTANCE IN MILES

BEARING	5.000	7.500	10.000	15.000	20.000	25.000	30.000	35.000	40.000	45.000	50.000
S	4.414E-08	2.278E-08	1.481E-08	8.551E-09	5.824E-09	4.336E-09	3.412E-09	2.790E-09	2.346E-09	2.014E-09	1.759E-09
SSW	2.608E-08	1.363E-08	8.941E-09	5.225E-09	3.591E-09	2.690E-09	2.126E-09	1.744E-09	1.470E-09	1.265E-09	1.107E-09
SW	2.480E-08	1.278E-08	8.305E-09	4.784E-09	3.254E-09	2.420E-09	1.903E-09	1.555E-09	1.307E-09	1.122E-09	9.798E-10
WSW	2.712E-08	1.406E-08	9.173E-09	5.317E-09	3.633E-09	2.708E-09	2.133E-09	1.744E-09	1.466E-09	1.258E-09	1.097E-09
W	3.624E-08	1.906E-08	1.254E-08	7.345E-09	5.048E-09	3.781E-09	2.989E-09	2.452E-09	2.067E-09	1.779E-09	1.557E-09
WNW	4.689E-08	2.392E-08	1.541E-08	8.763E-09	5.906E-09	4.358E-09	3.405E-09	2.766E-09	2.313E-09	1.976E-09	1.717E-09
NW	7.126E-08	3.759E-08	2.477E-08	1.449E-08	9.916E-09	7.391E-09	5.815E-09	4.749E-09	3.985E-09	3.415E-09	2.976E-09
NNW	8.224E-08	4.294E-08	2.817E-08	1.646E-08	1.132E-08	8.486E-09	6.713E-09	5.511E-09	4.649E-09	4.003E-09	3.503E-09
N	8.290E-08	4.269E-08	2.773E-08	1.597E-08	1.086E-08	8.069E-09	6.339E-09	5.173E-09	4.341E-09	3.721E-09	3.243E-09
NNE	5.797E-08	2.971E-08	1.925E-08	1.109E-08	7.560E-09	5.631E-09	4.434E-09	3.626E-09	3.048E-09	2.617E-09	2.284E-09
NE	4.291E-08	2.211E-08	1.435E-08	8.261E-09	5.622E-09	4.180E-09	3.285E-09	2.681E-09	2.251E-09	1.930E-09	1.683E-09
ENE	3.444E-08	1.817E-08	1.202E-08	7.107E-09	4.929E-09	3.717E-09	2.956E-09	2.437E-09	2.063E-09	1.781E-09	1.563E-09
E	2.990E-08	1.677E-08	1.151E-08	7.108E-09	5.046E-09	3.863E-09	3.103E-09	2.578E-09	2.195E-09	1.904E-09	1.677E-09
ESE	1.564E-08	8.540E-09	5.799E-09	3.560E-09	2.530E-09	1.943E-09	1.567E-09	1.306E-09	1.116E-09	9.713E-10	8.580E-10
SE	2.497E-08	1.308E-08	8.595E-09	5.030E-09	3.459E-09	2.592E-09	2.051E-09	1.684E-09	1.421E-09	1.224E-09	1.072E-09
SSE	4.699E-08	2.431E-08	1.584E-08	9.165E-09	6.251E-09	4.656E-09	3.665E-09	2.997E-09	2.519E-09	2.162E-09	1.887E-09

COOPER NUCLEAR STATION - VENT RELEASE POINT - FOURTH QUARTER 1981
NO DECAY, UNDEPLETED
CORRECTED FOR OPEN TERRAIN RECIRCULATION

ANNUAL AVERAGE CHI/Q (SEC/METER CUBED) DISTANCE IN MILES

SECTOR	0.250	0.500	0.750	1.000	1.500	2.000	2.500	3.000	3.500	4.000	4.500
S	2.148E-05	8.105E-06	4.562E-06	2.333E-06	9.307E-07	4.993E-07	3.138E-07	2.175E-07	1.609E-07	1.248E-07	1.003E-07
SSW	2.208E-05	9.434E-06	5.675E-06	3.036E-06	1.284E-06	7.152E-07	4.615E-07	3.263E-07	2.453E-07	1.928E-07	1.567E-07
SW	1.257E-05	5.981E-06	3.855E-06	2.150E-06	9.486E-07	5.396E-07	3.528E-07	2.516E-07	1.904E-07	1.504E-07	1.227E-07
WSW	6.613E-06	3.241E-06	2.190E-06	1.271E-06	5.880E-07	3.433E-07	2.282E-07	1.647E-07	1.257E-07	1.000E-07	8.208E-08
W	8.344E-06	3.911E-06	2.533E-06	1.396E-06	5.983E-07	3.330E-07	2.141E-07	1.508E-07	1.130E-07	8.846E-08	7.164E-08
WNW	1.415E-05	5.911E-06	3.531E-06	1.896E-06	8.083E-07	4.528E-07	2.934E-07	2.080E-07	1.568E-07	1.234E-07	1.004E-07
NW	4.125E-05	1.704E-05	1.006E-05	5.348E-06	2.255E-06	1.256E-06	8.116E-07	5.744E-07	4.323E-07	3.401E-07	2.765E-07
NNW	3.609E-05	1.617E-05	1.003E-05	5.369E-06	2.244E-06	1.238E-06	7.934E-07	5.581E-07	4.180E-07	3.276E-07	2.655E-07
N	3.325E-05	1.395E-05	8.334E-06	4.415E-06	1.845E-06	1.021E-06	6.567E-07	4.633E-07	3.479E-07	2.733E-07	2.219E-07
NNE	2.457E-05	1.011E-05	6.071E-06	3.246E-06	1.375E-06	7.674E-07	4.963E-07	3.516E-07	2.649E-07	2.086E-07	1.698E-07
NE	1.391E-05	5.774E-06	3.408E-06	1.818E-06	7.744E-07	4.348E-07	2.826E-07	2.009E-07	1.518E-07	1.198E-07	9.764E-08
ENE	1.138E-05	4.828E-06	2.834E-06	1.469E-06	5.943E-07	3.219E-07	2.038E-07	1.421E-07	1.057E-07	8.234E-08	6.641E-08
E	9.950E-06	4.129E-06	2.535E-06	1.396E-06	6.178E-07	3.545E-07	2.337E-07	1.679E-07	1.279E-07	1.016E-07	8.325E-08
ESE	1.060E-05	3.939E-06	2.127E-06	1.054E-06	4.061E-07	2.136E-07	1.325E-07	9.091E-08	6.673E-08	5.141E-08	4.107E-08
SE	1.304E-05	4.674E-06	2.735E-06	1.520E-06	6.978E-07	4.107E-07	2.755E-07	2.004E-07	1.540E-07	1.233E-07	1.017E-07
SSE	1.581E-05	5.878E-06	3.183E-06	1.580E-06	6.077E-07	3.189E-07	1.973E-07	1.350E-07	9.893E-08	7.609E-08	6.068E-08

ANNUAL AVERAGE CHI/Q (SEC/METER CUBED) DISTANCE IN MILES

BEARING	5.000	7.500	10.000	15.000	20.000	25.000	30.000	35.000	40.000	45.000	50.000
S	8.280E-08	4.225E-08	2.726E-08	1.556E-08	1.053E-08	7.796E-09	6.109E-09	4.976E-09	4.169E-09	3.569E-09	3.107E-09
SSW	1.307E-07	6.901E-08	4.553E-08	2.675E-08	1.842E-08	1.382E-08	1.094E-08	8.983E-09	7.580E-09	6.529E-09	5.715E-09
SW	1.027E-07	5.472E-08	3.628E-08	2.143E-08	1.479E-08	1.111E-08	8.804E-09	7.236E-09	6.109E-09	5.263E-09	4.608E-09
WSW	6.900E-08	3.740E-08	2.506E-08	1.499E-08	1.043E-08	7.882E-09	6.274E-09	5.176E-09	4.383E-09	3.787E-09	3.323E-09
W	5.954E-08	3.100E-08	2.024E-08	1.172E-08	7.982E-09	5.937E-09	4.668E-09	3.812E-09	3.200E-09	2.744E-09	2.392E-09
WNW	8.385E-08	4.440E-08	2.934E-08	1.728E-08	1.193E-08	8.964E-09	7.106E-09	5.844E-09	4.936E-09	4.255E-09	3.728E-09
NW	2.307E-07	1.220E-07	8.051E-08	4.734E-08	3.260E-08	2.445E-08	1.935E-08	1.589E-08	1.341E-08	1.155E-08	1.010E-08
NNW	2.210E-07	1.158E-07	7.600E-08	4.437E-08	3.041E-08	2.272E-08	1.794E-08	1.469E-08	1.237E-08	1.064E-08	9.292E-09
N	1.849E-07	9.748E-08	6.425E-08	3.771E-08	2.595E-08	1.945E-08	1.539E-08	1.263E-08	1.065E-08	9.168E-09	8.020E-09
NNE	1.418E-07	7.521E-08	4.978E-08	2.938E-08	2.029E-08	1.525E-08	1.209E-08	9.943E-09	8.399E-09	7.240E-09	6.342E-09
NE	8.166E-08	4.354E-08	2.890E-08	1.711E-08	1.183E-08	8.897E-09	7.057E-09	5.806E-09	4.906E-09	4.230E-09	3.706E-09
ENE	5.502E-08	2.836E-08	1.842E-08	1.060E-08	7.195E-09	5.338E-09	4.187E-09	3.413E-09	2.861E-09	2.450E-09	2.133E-09
E	6.995E-08	3.792E-08	2.544E-08	1.527E-08	1.066E-08	8.071E-09	6.438E-09	5.321E-09	4.513E-09	3.905E-09	3.431E-09
ESE	3.374E-08	1.686E-08	1.072E-08	5.991E-09	3.995E-09	2.923E-09	2.268E-09	1.831E-09	1.523E-09	1.295E-09	1.120E-09
SE	8.590E-08	4.745E-08	3.220E-08	1.961E-08	1.381E-08	1.054E-08	8.450E-09	7.016E-09	5.974E-09	5.185E-09	4.570E-09
SSE	4.982E-08	2.487E-08	1.580E-08	8.844E-09	5.916E-09	4.341E-09	3.377E-09	2.733E-09	2.277E-09	1.940E-09	1.682E-09

COOPER NUCLEAR STATION - ELEVATED RELEASE POINT - FOURTH QUARTER 1981
NO DECAY, UNDEPLETED
CORRECTED FOR OPEN TERRAIN RECIRCULATION

ANNUAL AVERAGE CHI/Q (SEC/METER CUBED) DISTANCE IN MILES

SECTOR	0.250	0.500	0.750	1.000	1.500	2.000	2.500	3.000	3.500	4.000	4.500
S	1.120E-05	3.533E-06	1.791E-06	8.659E-07	3.260E-07	1.693E-07	1.041E-07	7.104E-08	5.194E-08	3.989E-08	3.179E-08
SSW	1.208E-05	3.857E-06	2.002E-06	9.891E-07	3.855E-07	2.064E-07	1.303E-07	9.086E-08	6.773E-08	5.293E-08	4.285E-08
SW	7.217E-06	2.436E-06	1.284E-06	6.383E-07	2.518E-07	1.363E-07	8.664E-08	6.067E-08	4.528E-08	3.537E-08	2.858E-08
WSW	7.236E-06	2.400E-06	1.269E-06	6.333E-07	2.489E-07	1.339E-07	8.482E-08	5.929E-08	4.425E-08	3.459E-08	2.799E-08
W	6.795E-06	2.296E-06	1.221E-06	6.082E-07	2.376E-07	1.268E-07	7.967E-08	5.527E-08	4.097E-08	3.183E-08	2.562E-08
WNW	1.047E-05	3.576E-06	1.877E-06	9.266E-07	3.618E-07	1.945E-07	1.231E-07	8.584E-08	6.386E-08	4.972E-08	4.006E-08
NW	1.903E-05	6.528E-06	3.462E-06	1.718E-06	6.685E-07	3.563E-07	2.239E-07	1.556E-07	1.156E-07	9.012E-08	7.278E-08
NNW	2.703E-05	9.170E-06	4.841E-06	2.399E-06	9.347E-07	4.999E-07	3.150E-07	2.192E-07	1.629E-07	1.269E-07	1.024E-07
N	2.776E-05	9.536E-06	5.065E-06	2.519E-06	9.929E-07	5.380E-07	3.436E-07	2.423E-07	1.824E-07	1.437E-07	1.172E-07
NNE	1.630E-05	5.643E-06	2.980E-06	1.468E-06	5.675E-07	3.016E-07	1.891E-07	1.311E-07	9.706E-08	7.537E-08	6.063E-08
NE	1.377E-05	4.631E-06	2.501E-06	1.263E-06	5.041E-07	2.737E-07	1.744E-07	1.225E-07	9.172E-08	7.192E-08	5.836E-08
ENE	1.395E-05	4.631E-06	2.503E-06	1.267E-06	5.071E-07	2.757E-07	1.760E-07	1.238E-07	9.292E-08	7.301E-08	5.936E-08
E	7.490E-06	2.649E-06	1.418E-06	7.078E-07	2.833E-07	1.565E-07	1.021E-07	7.360E-08	5.661E-08	4.553E-08	3.783E-08
ESE	8.357E-06	2.856E-06	1.494E-06	7.328E-07	2.859E-07	1.555E-07	1.002E-07	7.137E-08	5.420E-08	4.305E-08	3.532E-08
SE	1.158E-05	3.783E-06	1.967E-06	9.688E-07	3.782E-07	2.035E-07	1.291E-07	9.047E-08	6.770E-08	5.309E-08	4.311E-08
SSE	1.763E-05	5.706E-06	2.993E-06	1.486E-06	5.809E-07	3.112E-07	1.966E-07	1.372E-07	1.024E-07	8.017E-08	6.501E-08

ANNUAL AVERAGE CHI/Q (SEC/METER CUBED) DISTANCE IN MILES

BEARING	5.000	7.500	10.000	15.000	20.000	25.000	30.000	35.000	40.000	45.000	50.000
S	2.611E-08	1.310E-08	8.358E-09	4.721E-09	3.187E-09	2.358E-09	1.847E-09	1.505E-09	1.261E-09	1.080E-09	9.415E-10
SSW	3.567E-08	1.889E-08	1.258E-08	7.547E-09	5.303E-09	4.042E-09	3.240E-09	2.689E-09	2.289E-09	1.986E-09	1.750E-09
SW	2.370E-08	1.221E-08	7.887E-09	4.487E-09	3.018E-09	2.220E-09	1.729E-09	1.401E-09	1.167E-09	9.945E-10	8.619E-10
WSW	2.326E-08	1.213E-08	7.929E-09	4.595E-09	3.127E-09	2.324E-09	1.825E-09	1.488E-09	1.248E-09	1.069E-09	9.312E-10
W	2.118E-08	1.084E-08	6.994E-09	3.987E-09	2.688E-09	1.984E-09	1.549E-09	1.258E-09	1.051E-09	8.971E-10	7.790E-10
WNW	3.314E-08	1.689E-08	1.082E-08	6.070E-09	4.041E-09	2.949E-09	2.279E-09	1.834E-09	1.519E-09	1.287E-09	1.110E-09
NW	6.041E-08	3.147E-08	2.063E-08	1.205E-08	8.280E-09	6.199E-09	4.896E-09	4.013E-09	3.380E-09	2.905E-09	2.538E-09
NNW	8.480E-08	4.373E-08	2.839E-08	1.631E-08	1.106E-08	8.195E-09	6.422E-09	5.230E-09	4.381E-09	3.749E-09	3.262E-09
N	9.811E-08	5.263E-08	3.509E-08	2.084E-08	1.442E-08	1.084E-08	8.586E-09	7.053E-09	5.950E-09	5.122E-09	4.480E-09
NNE	5.011E-08	2.561E-08	1.651E-08	9.405E-09	6.342E-09	4.679E-09	3.654E-09	2.967E-09	2.479E-09	2.116E-09	1.838E-09
NE	4.862E-08	2.563E-08	1.692E-08	9.967E-09	6.876E-09	5.165E-09	4.092E-09	3.363E-09	2.839E-09	2.445E-09	2.140E-09
ENE	4.956E-08	2.639E-08	1.756E-08	1.045E-08	7.265E-09	5.489E-09	4.371E-09	3.608E-09	3.058E-09	2.643E-09	2.322E-09
E	3.221E-08	1.842E-08	1.279E-08	7.958E-09	5.648E-09	4.314E-09	3.456E-09	2.862E-09	2.428E-09	2.100E-09	1.844E-09
ESE	2.973E-08	1.623E-08	1.090E-08	6.511E-09	4.517E-09	3.400E-09	2.697E-09	2.219E-09	1.874E-09	1.616E-09	1.416E-09
SE	3.598E-08	1.922E-08	1.287E-08	7.770E-09	5.471E-09	4.175E-09	3.350E-09	2.782E-09	2.369E-09	2.056E-09	1.811E-09
SSE	5.419E-08	2.886E-08	1.930E-08	1.165E-08	8.202E-09	6.263E-09	5.031E-09	4.182E-09	3.566E-09	3.098E-09	2.733E-09

COOPER NUCLEAR STATION - VENT RELEASE POINT - SECOND SEMI-ANNUAL 1981
NO DECAY, UNDEPLETED
CORRECTED FOR OPEN TERRAIN RECIRCULATION

ANNUAL AVERAGE CHI/Q (SEC/METER CUBED) DISTANCE IN MILES

SECTOR	0.250	0.500	0.750	1.000	1.500	2.000	2.500	3.000	3.500	4.000	4.500
S	2.552E-05	1.155E-05	6.985E-06	3.695E-06	1.525E-06	8.330E-07	5.300E-07	3.705E-07	2.761E-07	2.153E-07	1.738E-07
SSW	2.220E-05	1.016E-05	6.261E-06	3.358E-06	1.414E-06	7.838E-07	5.037E-07	3.550E-07	2.662E-07	2.088E-07	1.693E-07
SW	1.588E-05	7.501E-06	4.776E-06	2.650E-06	1.170E-06	6.677E-07	4.378E-07	3.130E-07	2.375E-07	1.880E-07	1.536E-07
WSW	1.337E-05	5.328E-06	3.188E-06	1.754E-06	7.612E-07	4.291E-07	2.789E-07	1.982E-07	1.496E-07	1.179E-07	9.601E-08
W	1.174E-05	5.727E-06	3.705E-06	2.029E-06	8.649E-07	4.804E-07	3.083E-07	2.175E-07	1.630E-07	1.278E-07	1.035E-07
WNW	1.460E-05	6.354E-06	3.937E-06	2.138E-06	9.156E-07	5.125E-07	3.317E-07	2.349E-07	1.769E-07	1.392E-07	1.132E-07
NW	3.533E-05	1.480E-05	8.804E-06	4.674E-06	1.959E-06	1.086E-06	6.987E-07	4.930E-07	3.703E-07	2.908E-07	2.362E-07
NNW	4.317E-05	1.776E-05	1.121E-05	6.099E-06	2.605E-06	1.455E-06	9.410E-07	6.663E-07	5.017E-07	3.949E-07	3.212E-07
N	3.753E-05	1.537E-05	9.070E-06	4.759E-06	1.964E-06	1.078E-06	6.897E-07	4.846E-07	3.623E-07	2.841E-07	2.302E-07
NNE	2.412E-05	9.373E-06	5.434E-06	2.343E-06	1.175E-06	6.474E-07	4.151E-07	2.923E-07	2.192E-07	1.719E-07	1.395E-07
NE	1.371E-05	5.272E-06	3.008E-06	1.569E-06	6.494E-07	3.585E-07	2.303E-07	1.623E-07	1.218E-07	9.564E-08	7.764E-08
ENE	7.334E-06	3.046E-06	1.831E-06	9.986E-07	4.264E-07	2.410E-07	1.573E-07	1.122E-07	8.497E-08	6.718E-08	5.487E-08
E	7.534E-06	3.206E-06	1.943E-06	1.055E-06	4.560E-07	2.579E-07	1.684E-07	1.201E-07	9.100E-08	7.196E-08	5.878E-08
ESE	7.203E-06	2.718E-06	1.506E-06	7.601E-07	2.992E-07	1.595E-07	9.937E-08	6.903E-08	5.098E-08	3.949E-08	3.169E-08
SE	9.033E-06	3.257E-06	1.871E-06	1.010E-06	4.442E-07	2.547E-07	1.632E-07	1.209E-07	9.214E-08	7.322E-08	6.005E-08
SSE	1.533E-05	6.154E-06	3.430E-06	1.728E-06	6.779E-07	3.502E-07	2.249E-07	1.551E-07	1.143E-07	8.338E-08	7.082E-08

ANNUAL AVERAGE CHI/Q (SEC/METER CUBED) DISTANCE IN MILES

BEARING	5.000	7.500	10.000	15.000	20.000	25.000	30.000	35.000	40.000	45.000	50.000
S	1.441E-07	7.456E-08	4.851E-08	2.796E-08	1.931E-08	1.411E-08	1.103E-08	9.040E-09	7.582E-09	6.496E-09	5.659E-09
SSW	1.410E-07	7.401E-08	4.363E-08	2.340E-08	1.947E-08	1.455E-08	1.149E-08	9.411E-09	7.924E-09	6.811E-09	5.954E-09
SW	1.237E-07	6.910E-08	4.604E-08	2.738E-08	1.899E-08	1.431E-08	1.137E-08	9.359E-09	7.926E-09	6.841E-09	5.998E-09
WSW	8.023E-08	4.255E-08	2.825E-08	1.667E-08	1.151E-08	8.654E-09	6.850E-09	5.641E-09	4.764E-09	4.107E-09	3.597E-09
W	8.514E-08	4.507E-08	2.954E-08	1.720E-08	1.177E-08	8.781E-09	6.922E-09	5.665E-09	4.765E-09	4.094E-09	3.574E-09
WNW	9.441E-08	4.989E-08	3.292E-08	1.934E-08	1.332E-08	9.987E-09	7.903E-09	6.489E-09	5.474E-09	4.713E-09	4.124E-09
NW	1.968E-07	1.038E-07	6.840E-08	4.017E-08	2.765E-08	2.073E-08	1.641E-08	1.343E-08	1.137E-08	9.792E-09	8.570E-09
NNW	2.582E-07	1.421E-07	9.403E-08	5.546E-08	3.827E-08	2.876E-08	2.279E-08	1.874E-08	1.583E-08	1.364E-08	1.195E-08
N	1.916E-07	1.003E-07	6.588E-08	3.847E-08	2.633E-08	1.972E-08	1.557E-08	1.276E-08	1.075E-08	9.238E-09	8.073E-09
NNE	1.162E-07	6.113E-08	4.026E-08	2.361E-08	1.624E-08	1.217E-08	9.627E-09	7.903E-09	6.665E-09	5.737E-09	5.019E-09
NE	6.471E-08	3.413E-08	2.251E-08	1.323E-08	9.118E-09	6.843E-09	5.420E-09	4.453E-09	3.759E-09	3.239E-09	2.835E-09
ENE	4.596E-08	2.465E-08	1.643E-08	9.786E-09	6.802E-09	5.138E-09	4.039E-09	3.373E-09	2.857E-09	2.463E-09	2.166E-09
E	4.924E-08	2.642E-08	1.761E-08	1.049E-08	7.285E-09	5.493E-09	4.373E-09	3.605E-09	3.033E-09	2.637E-09	2.313E-09
ESE	2.615E-08	1.331E-08	8.568E-09	4.877E-09	3.271E-09	2.431E-09	1.901E-09	1.545E-09	1.293E-09	1.105E-09	9.606E-10
SE	5.048E-08	2.743E-08	1.843E-08	1.109E-08	7.760E-09	5.889E-09	4.705E-09	3.894E-09	3.307E-09	2.864E-09	2.520E-09
SSE	5.337E-08	2.956E-08	1.897E-08	1.075E-08	7.240E-09	5.340E-09	4.170E-09	3.387E-09	2.830E-09	2.417E-09	2.100E-09

DOPPER NUCLEAR STATION - ELEVATED RELEASE POINT - SECOND SEMI-ANNUAL 1981
NO DECAY, UNDEPLETED
CORRECTED FOR OPEN TERRAIN RECIRCULATION

ANNUAL AVERAGE CHI/Q (SEC/METER CUBED) DISTANCE IN MILES

SECTOR	0.250	0.500	0.750	1.000	1.500	2.000	2.500	3.000	3.500	4.000	4.500
S	1.363E-05	4.311E-06	2.199E-06	1.069E-06	4.090E-07	2.155E-07	1.342E-07	9.244E-08	6.815E-08	5.273E-08	4.229E-08
SSW	1.052E-05	3.351E-06	1.736E-06	8.563E-07	3.335E-07	1.784E-07	1.125E-07	7.842E-08	5.840E-08	4.559E-08	3.686E-08
SW	8.011E-06	2.553E-06	1.383E-06	6.816E-07	2.651E-07	1.418E-07	8.935E-08	6.218E-08	4.621E-08	3.598E-08	2.901E-08
WSW	8.311E-06	2.758E-06	1.439E-06	7.095E-07	2.757E-07	1.472E-07	9.279E-08	6.461E-08	4.807E-08	3.748E-08	3.027E-08
W	8.997E-06	3.036E-06	1.607E-06	7.980E-07	3.118E-07	1.669E-07	1.053E-07	7.342E-08	5.469E-08	4.267E-08	3.443E-08
WNW	1.320E-05	4.507E-06	2.363E-06	1.162E-06	4.503E-07	2.402E-07	1.510E-07	1.048E-07	7.770E-08	6.035E-08	4.854E-08
NW	2.083E-05	7.143E-06	3.773E-06	1.864E-06	7.234E-07	3.859E-07	2.431E-07	1.693E-07	1.262E-07	9.855E-08	7.974E-08
NNW	2.671E-05	9.052E-06	4.777E-06	2.363E-06	9.195E-07	4.910E-07	3.092E-07	2.151E-07	1.599E-07	1.246E-07	1.005E-07
N	2.757E-05	9.361E-06	4.948E-06	2.454E-06	9.615E-07	5.169E-07	3.275E-07	2.292E-07	1.713E-07	1.341E-07	1.087E-07
NNE	1.759E-05	6.010E-06	3.183E-06	1.575E-06	6.109E-07	3.246E-07	2.033E-07	1.407E-07	1.041E-07	8.076E-08	6.492E-08
NE	1.431E-05	4.783E-06	2.543E-06	1.266E-06	4.967E-07	2.668E-07	1.637E-07	1.173E-07	8.776E-08	6.853E-08	5.540E-08
ENE	1.249E-05	4.123E-06	2.206E-06	1.108E-06	4.391E-07	2.375E-07	1.511E-07	1.060E-07	7.937E-08	6.226E-08	5.054E-08
E	7.325E-06	2.614E-06	1.395E-06	6.997E-07	2.799E-07	1.540E-07	1.001E-07	7.180E-08	5.495E-08	4.399E-08	3.638E-08
ESE	6.724E-06	2.223E-06	1.170E-06	5.736E-07	2.272E-07	1.233E-07	7.903E-08	5.594E-08	4.225E-08	3.340E-08	2.730E-08
SE	9.632E-06	3.159E-06	1.655E-06	8.189E-07	3.206E-07	1.724E-07	1.093E-07	7.645E-08	5.712E-08	4.471E-08	3.624E-08
SSE	1.639E-05	5.392E-06	2.832E-06	1.402E-06	5.476E-07	2.932E-07	1.850E-07	1.289E-07	9.602E-08	7.497E-08	6.062E-08

ANNUAL AVERAGE CHI/Q (SEC/METER CUBED) DISTANCE IN MILES

BEARING	5.000	7.500	10.000	15.000	20.000	25.000	30.000	35.000	40.000	45.000	50.000
S	3.490E-08	1.782E-08	1.151E-08	5.590E-09	4.473E-09	3.321E-09	2.509E-09	2.130E-09	1.738E-09	1.534E-09	1.338E-09
SSW	3.065E-08	1.611E-08	1.063E-08	6.279E-09	4.356E-09	3.287E-09	2.514E-09	2.155E-09	1.824E-09	1.575E-09	1.382E-09
SW	2.403E-08	1.238E-08	8.021E-09	4.593E-09	3.107E-09	2.299E-09	1.700E-09	1.465E-09	1.227E-09	1.050E-09	9.134E-10
WSW	2.512E-08	1.305E-08	8.521E-09	4.935E-09	3.353E-09	2.502E-09	1.956E-09	1.605E-09	1.347E-09	1.155E-09	1.005E-09
W	2.862E-08	1.489E-08	9.726E-09	5.638E-09	3.848E-09	2.866E-09	2.255E-09	1.844E-09	1.550E-09	1.330E-09	1.161E-09
WNW	4.011E-08	2.045E-08	1.314E-08	7.433E-09	4.985E-09	3.662E-09	2.849E-09	2.306E-09	1.922E-09	1.637E-09	1.415E-09
NW	6.530E-08	3.476E-08	2.234E-08	1.333E-08	9.123E-09	6.811E-09	5.354E-09	4.335E-09	3.683E-09	3.159E-09	2.754E-09
NNW	8.338E-08	4.327E-08	2.824E-08	1.637E-08	1.118E-08	8.330E-09	6.559E-09	5.364E-09	4.509E-09	3.871E-09	3.378E-09
N	9.052E-08	4.763E-08	3.136E-08	1.835E-08	1.258E-08	9.400E-09	7.413E-09	6.068E-09	5.104E-09	4.384E-09	3.827E-09
NNE	5.364E-08	2.743E-08	1.773E-08	1.015E-08	6.978E-09	5.099E-09	3.997E-09	3.257E-09	2.729E-09	2.337E-09	2.034E-09
NE	4.502E-08	2.402E-08	1.574E-08	9.171E-09	6.239E-09	4.701E-09	3.711E-09	3.040E-09	2.560E-09	2.209E-09	1.922E-09
ENE	4.215E-08	2.237E-08	1.485E-08	8.820E-09	6.125E-09	4.625E-09	3.661E-09	3.037E-09	2.573E-09	2.223E-09	1.952E-09
E	3.085E-08	1.737E-08	1.194E-08	7.359E-09	5.203E-09	3.967E-09	3.175E-09	2.623E-09	2.230E-09	1.929E-09	1.694E-09
ESE	2.292E-08	1.245E-08	8.364E-09	5.025E-09	3.508E-09	2.655E-09	2.115E-09	1.747E-09	1.481E-09	1.280E-09	1.124E-09
SE	3.013E-08	1.595E-08	1.057E-08	6.270E-09	4.353E-09	3.292E-09	2.621E-09	2.163E-09	1.832E-09	1.583E-09	1.389E-09
SSE	5.039E-08	2.643E-08	1.743E-08	1.029E-08	7.125E-09	5.372E-09	4.270E-09	3.520E-09	2.980E-09	2.573E-09	2.258E-09

COOPER NUCLEAR STATION - VENT RELEASE POINT - ANNUAL 1981
NO DECAY, UNDEPLETED
CORRECTED FOR OPEN TERRAIN RECIRCULATION

ANNUAL AVERAGE CHI/Q (SEC/METER CUBED) DISTANCE IN MILES

SECTOR	0.250	0.500	0.750	1.000	1.500	2.000	2.500	3.000	3.500	4.000	4.500
S	2.431E-05	1.041E-05	6.214E-06	3.266E-06	1.344E-06	7.341E-07	4.673E-07	3.270E-07	2.438E-07	1.904E-07	1.538E-07
SSW	2.227E-05	9.984E-06	6.033E-06	3.185E-06	1.314E-06	7.192E-07	4.583E-07	3.209E-07	2.394E-07	1.870E-07	1.511E-07
SW	1.493E-05	6.763E-06	4.117E-06	2.215E-06	9.445E-07	5.286E-07	3.422E-07	2.425E-07	1.827E-07	1.438E-07	1.170E-07
WSW	1.031E-05	4.597E-06	2.863E-06	1.573E-06	6.879E-07	3.907E-07	2.555E-07	1.824E-07	1.381E-07	1.092E-07	8.918E-08
W	1.003E-05	4.563E-06	2.863E-06	1.548E-06	6.544E-07	3.627E-07	2.331E-07	1.642E-07	1.231E-07	9.647E-08	7.820E-08
WNW	1.331E-05	5.947E-06	3.863E-06	2.162E-06	9.561E-07	5.447E-07	3.566E-07	2.547E-07	1.930E-07	1.527E-07	1.247E-07
NW	2.897E-05	1.191E-05	7.340E-06	4.005E-06	1.734E-06	9.796E-07	6.384E-07	4.547E-07	3.440E-07	2.718E-07	2.218E-07
NNW	3.296E-05	1.469E-05	9.459E-06	5.219E-06	2.266E-06	1.278E-06	8.321E-07	5.921E-07	4.476E-07	3.533E-07	2.882E-07
N	3.611E-05	1.510E-05	9.092E-06	4.829E-06	2.020E-06	1.118E-06	7.190E-07	5.072E-07	3.808E-07	2.991E-07	2.428E-07
NNE	2.440E-05	9.620E-06	5.626E-06	2.941E-06	1.208E-06	6.613E-07	4.222E-07	2.963E-07	2.216E-07	1.734E-07	1.404E-07
NE	1.226E-05	4.657E-06	2.684E-06	1.399E-06	5.748E-07	3.151E-07	2.014E-07	1.415E-07	1.059E-07	8.293E-08	6.720E-08
ENE	8.373E-06	3.370E-06	2.004E-06	1.061E-06	4.428E-07	2.449E-07	1.574E-07	1.110E-07	8.334E-08	6.543E-08	5.313E-08
E	8.097E-06	3.164E-06	1.829E-06	9.533E-07	3.922E-07	2.154E-07	1.379E-07	9.694E-08	7.261E-08	5.690E-08	4.613E-08
ESE	8.118E-06	3.128E-06	1.781E-06	9.130E-07	3.665E-07	1.979E-07	1.251E-07	8.710E-08	6.474E-08	5.041E-08	4.065E-08
SE	9.991E-06	3.594E-06	1.968E-06	1.005E-06	4.090E-07	2.237E-07	1.428E-07	1.002E-07	7.496E-08	5.866E-08	4.749E-08
SSE	1.584E-05	6.249E-06	3.517E-06	1.782E-06	7.038E-07	3.756E-07	2.353E-07	1.627E-07	1.201E-07	9.306E-08	7.468E-08

ANNUAL AVERAGE CHI/Q (SEC/METER CUBED) DISTANCE IN MILES

BEARING	5.000	7.500	10.000	15.000	20.000	25.000	30.000	35.000	40.000	45.000	50.000
S	1.276E-07	6.624E-08	4.321E-08	2.502E-08	1.707E-08	1.271E-08	1.000E-08	8.177E-09	6.871E-09	5.896E-09	5.144E-09
SSW	1.254E-07	6.514E-08	4.250E-08	2.460E-08	1.676E-08	1.247E-08	9.808E-09	8.012E-09	6.728E-09	5.771E-09	5.032E-09
SW	9.763E-08	5.171E-08	3.417E-08	2.010E-08	1.384E-08	1.038E-08	8.215E-09	6.746E-09	5.691E-09	4.900E-09	4.288E-09
WSW	7.468E-08	3.999E-08	2.660E-08	1.579E-08	1.094E-08	8.242E-09	6.547E-09	5.392E-09	4.561E-09	3.936E-09	3.451E-09
W	6.507E-08	3.408E-08	2.235E-08	1.303E-08	8.927E-09	6.670E-09	5.263E-09	4.312E-09	3.630E-09	3.121E-09	2.727E-09
WNW	1.044E-07	5.595E-08	3.725E-08	2.214E-08	1.536E-08	1.159E-08	9.211E-09	7.592E-09	6.424E-09	5.546E-09	4.865E-09
NW	1.857E-07	9.936E-08	6.614E-08	3.933E-08	2.729E-08	2.059E-08	1.637E-08	1.350E-08	1.143E-08	9.869E-09	8.660E-09
NNW	2.411E-07	1.288E-07	8.561E-08	5.082E-08	3.522E-08	2.655E-08	2.109E-08	1.738E-08	1.470E-08	1.269E-08	1.113E-08
N	2.024E-07	1.067E-07	7.038E-08	4.133E-08	2.844E-08	2.132E-08	1.686E-08	1.384E-08	1.167E-08	1.005E-08	8.792E-09
NNE	1.168E-07	6.110E-08	4.009E-08	2.340E-08	1.605E-08	1.200E-08	9.478E-09	7.770E-09	6.545E-09	5.628E-09	4.919E-09
NE	5.592E-08	2.936E-08	1.931E-08	1.132E-08	7.791E-09	5.843E-09	4.625E-09	3.798E-09	3.205E-09	2.760E-09	2.416E-09
ENE	4.429E-08	2.337E-08	1.542E-08	9.071E-09	6.254E-09	4.696E-09	3.720E-09	3.057E-09	2.581E-09	2.224E-09	1.947E-09
E	3.840E-08	2.016E-08	1.326E-08	7.763E-09	5.334E-09	3.995E-09	3.158E-09	2.591E-09	2.184E-09	1.879E-09	1.643E-09
ESE	3.368E-08	1.740E-08	1.133E-08	6.542E-09	4.458E-09	3.317E-09	2.609E-09	2.132E-09	1.791E-09	1.536E-09	1.340E-09
SE	3.949E-08	2.065E-08	[illegible]4E-08	7.896E-09	5.412E-09	4.045E-09	3.194E-09	2.617E-09	2.205E-09	1.896E-09	1.657E-09
SSE	6.163E-08	3.135E-08	2.017E-08	1.147E-08	7.737E-09	5.712E-09	4.464E-09	3.628E-09	3.033E-09	2.591E-09	2.252E-09

COOPER NUCLEAR STATION - ELEVATED RELEASE POINT - ANNUAL 1981
NO DECAY, UNDEPLETED
CORRECTED FOR OPEN TERRAIN RECIRCULATION

ANNUAL AVERAGE CHI/Q (SEC/METER CUBED) DISTANCE IN MILES

SECTOR	0.250	0.500	0.750	1.000	1.500	2.000	2.500	3.000	3.500	4.000	4.500
S	1.347E-05	4.208E-06	2.155E-06	1.053E-06	4.065E-07	2.152E-07	1.344E-07	9.289E-08	6.865E-08	5.324E-08	4.279E-08
SSW	1.006E-05	3.218E-06	1.670E-06	8.238E-07	3.211E-07	1.716E-07	1.081E-07	7.517E-08	5.589E-08	4.356E-08	3.517E-08
SW	8.506E-06	2.798E-06	1.460E-06	7.208E-07	2.804E-07	1.496E-07	9.408E-08	6.533E-08	4.849E-08	3.772E-08	3.040E-08
WSW	8.576E-06	2.839E-06	1.482E-06	7.300E-07	2.825E-07	1.500E-07	9.401E-08	6.512E-08	4.822E-08	3.744E-08	3.012E-08
W	7.758E-06	2.590E-06	1.360E-06	6.719E-07	2.615E-07	1.397E-07	8.796E-08	6.121E-08	4.552E-08	3.548E-08	2.863E-08
WNW	1.128E-05	3.817E-06	2.002E-06	9.861E-07	3.819E-07	2.033E-07	1.276E-07	8.844E-08	6.551E-08	5.087E-08	4.091E-08
NW	1.657E-05	5.649E-06	2.974E-06	1.466E-06	5.666E-07	3.009E-07	1.887E-07	1.308E-07	9.705E-08	7.549E-08	6.085E-08
NNW	1.969E-05	6.673E-06	3.529E-06	1.748E-06	6.806E-07	3.633E-07	2.286E-07	1.589E-07	1.180E-07	9.187E-08	7.408E-08
N	2.291E-05	7.806E-06	4.124E-06	2.039E-06	7.935E-07	4.238E-07	2.668E-07	1.856E-07	1.380E-07	1.076E-07	8.685E-08
NNE	1.777E-05	6.043E-06	3.187E-06	1.573E-06	6.097E-07	3.240E-07	2.030E-07	1.405E-07	1.040E-07	8.073E-08	6.492E-08
NE	1.398E-05	4.705E-06	2.499E-06	1.241E-06	4.846E-07	2.591E-07	1.633E-07	1.137E-07	8.461E-08	6.601E-08	5.333E-08
ENE	1.272E-05	4.212E-06	2.256E-06	1.134E-06	4.504E-07	2.440E-07	1.553E-07	1.090E-07	8.165E-08	6.404E-08	5.199E-08
E	9.776E-06	3.219E-06	1.724E-06	8.692E-07	3.485E-07	1.910E-07	1.232E-07	8.757E-08	6.641E-08	5.270E-08	4.323E-08
ESE	9.124E-06	3.026E-06	1.605E-06	7.999E-07	3.160E-07	1.712E-07	1.093E-07	7.697E-08	5.785E-08	4.553E-08	3.707E-08
SE	1.086E-05	3.531E-06	1.858E-06	9.237E-07	3.631E-07	1.951E-07	1.234E-07	8.616E-08	6.424E-08	5.020E-08	4.062E-08
SSE	1.596E-05	5.165E-06	2.712E-06	1.347E-06	5.288E-07	2.837E-07	1.792E-07	1.249E-07	9.302E-08	7.261E-08	5.869E-08

ANNUAL AVERAGE CHI/Q (SEC/METER CUBED) DISTANCE IN MILES

BEARING	5.000	7.500	10.000	15.000	20.000	25.000	30.000	35.000	40.000	45.000	50.000
S	3.539E-08	1.825E-08	1.190E-08	6.945E-09	4.798E-09	3.618E-09	2.882E-09	2.383E-09	2.025E-09	1.756E-09	1.547E-09
SSW	2.919E-08	1.524E-08	1.001E-08	5.872E-09	4.056E-09	3.051E-09	2.421E-09	1.993E-09	1.684E-09	1.453E-09	1.274E-09
SW	2.519E-08	1.302E-08	8.493E-09	4.928E-09	3.372E-09	2.519E-09	1.988E-09	1.630E-09	1.373E-09	1.181E-09	1.033E-09
WSW	2.491E-08	1.279E-08	8.287E-09	4.752E-09	3.219E-09	2.385E-09	1.869E-09	1.522E-09	1.274E-09	1.090E-09	9.490E-10
W	2.375E-08	1.232E-08	8.030E-09	4.648E-09	3.172E-09	2.363E-09	1.860E-09	1.520E-09	1.278E-09	1.097E-09	9.569E-10
WNW	3.382E-08	1.730E-08	1.116E-08	6.365E-09	4.305E-09	3.185E-09	2.494E-09	2.030E-09	1.699E-09	1.454E-09	1.265E-09
NW	5.042E-08	2.610E-08	1.700E-08	9.836E-09	6.710E-09	4.994E-09	3.927E-09	3.207E-09	2.693E-09	2.308E-09	2.012E-09
NNW	6.140E-08	3.177E-08	2.070E-08	1.197E-08	8.162E-09	6.077E-09	4.782E-09	3.908E-09	3.284E-09	2.818E-09	2.458E-09
N	7.205E-08	3.743E-08	2.444E-08	1.417E-08	9.668E-09	7.199E-09	5.663E-09	4.627E-09	3.885E-09	3.332E-09	2.906E-09
NNE	5.368E-08	2.752E-08	1.783E-08	1.024E-08	6.954E-09	5.163E-09	4.054E-09	3.307E-09	2.774E-09	2.377E-09	2.071E-09
NE	4.429E-08	2.313E-08	1.517E-08	8.856E-09	6.085E-09	4.557E-09	3.602E-09	2.955E-09	2.491E-09	2.144E-09	1.875E-09
ENE	4.336E-08	2.298E-08	1.524E-08	9.027E-09	6.256E-09	4.716E-09	3.747E-09	3.088E-09	2.612E-09	2.255E-09	1.978E-09
E	3.638E-08	1.994E-08	1.348E-08	8.160E-09	[illegible]	4.352E-09	3.480E-09	2.883E-09	2.450E-09	2.124E-09	1.870E-09
ESE	3.101E-08	1.663E-08	1.111E-08	6.645E-09	4.637E-09	3.515E-09	2.808E-09	2.324E-09	1.975E-09	1.712E-09	1.508E-09
SE	3.379E-08	1.778E-08	1.175E-08	6.955E-09	4.828E-09	3.648E-09	2.906E-09	2.401E-09	2.037E-09	1.763E-09	1.550E-09
SSE	4.877E-08	2.556E-08	1.684E-08	9.911E-09	6.852E-09	5.160E-09	4.099E-09	3.378E-09	2.859E-09	2.469E-09	2.166E-09

COOPER NUCLEAR STATION - COMBINED RELEASE - THIRD QUARTER 1981
INDIVIDUAL ANNUAL GAMMA AIR DOSE (MILLIRADS)

SECTOR	DISTANCE IN MILES 0.500	1.000	2.000	3.000	4.000	5.000	10.00	20.00	30.00	40.00	50.00
S	3.99E-01	1.06E-01	1.96E-02	7.46E-03	3.78E-03	2.23E-03	4.62E-04	1.02E-04	4.10E-05	2.08E-05	1.20E-05
SSW	2.71E-01	7.59E-02	1.43E-02	5.53E-03	2.84E-04	1.71E-03	3.58E-04	7.29E-05	2.73E-05	1.33E-05	7.43E-06
SW	2.39E-01	6.59E-02	1.23E-02	4.64E-03	2.31E-03	1.33E-03	2.49E-04	4.97E-05	1.88E-05	9.11E-06	5.16E-06
WSW	2.05E-01	5.55E-02	1.07E-02	4.29E-03	2.28E-03	1.41E-03	3.36E-04	7.38E-05	2.68E-05	1.23E-05	6.67E-06
W	2.26E-01	6.30E-02	1.22E-02	4.82E-03	2.52E-03	1.54E-03	3.45E-04	7.26E-05	2.64E-05	1.25E-05	6.80E-06
WNW	2.69E-01	7.09E-02	1.35E-02	5.25E-03	2.72E-03	1.64E-03	3.64E-04	8.05E-05	3.09E-05	1.49E-05	8.35E-06
NW	4.50E-01	1.22E-01	2.41E-02	9.82E-03	5.25E-03	3.26E-03	7.74E-04	1.63E-04	5.80E-05	2.67E-05	1.46E-05
NNW	5.87E-01	1.69E-01	3.32E-02	1.34E-02	7.04E-03	4.30E-03	9.54E-04	2.04E-04	7.56E-05	3.63E-05	2.02E-05
N	5.70E-01	1.52E-01	2.99E-02	1.21E-02	6.53E-03	4.11E-03	1.05E-03	2.63E-04	1.05E-04	5.18E-05	2.92E-05
NNE	3.43E-01	8.98E-02	1.73E-02	7.07E-03	3.82E-03	2.42E-03	6.51E-04	1.77E-04	7.59E-05	3.93E-05	2.29E-05
NE	2.24E-01	5.64E-02	1.06E-02	4.27E-03	2.32E-03	1.46E-03	3.85E-04	1.01E-04	4.17E-05	2.10E-05	1.20E-05
ENE	1.23E-01	3.15E-02	6.15E-03	2.41E-03	1.28E-03	7.88E-04	2.03E-04	5.34E-05	2.21E-05	1.10E-05	6.25E-06
E	1.10E-01	2.94E-02	5.70E-03	2.27E-03	1.19E-03	7.22E-04	1.50E-04	2.71E-05	9.34E-06	4.44E-06	2.55E-06
ESE	6.97E-02	1.85E-02	3.61E-03	1.49E-03	8.15E-04	5.13E-04	1.35E-04	3.28E-05	1.23E-05	5.82E-06	3.16E-06
SE	1.06E-01	2.71E-02	5.23E-03	2.16E-03	1.17E-03	7.41E-04	1.96E-04	5.06E-05	2.06E-05	1.02E-05	5.71E-06
SSE	2.57E-01	6.63E-02	1.27E-02	5.11E-03	2.74E-03	1.72E-03	4.33E-04	1.07E-04	4.22E-05	2.06E-05	1.15E-05

COOPER NUCLEAR STATION - COMBINED RELEASE - FOURTH QUARTER 1981
INDIVIDUAL ANNUAL GAMMA AIR DOSE (MILLIRADS)

	DISTANCE IN MILES										
SECTOR	0.500	1.000	2.000	3.000	4.000	5.000	10.00	20.00	30.00	40.00	50.00
S	1.45E+00	3.73E-01	6.81E-02	2.66E-02	1.41E-02	8.68E-03	2.07E-03	4.72E-04	1.76E-04	8.32E-05	4.54E-05
SSW	1.63E+00	4.33E-01	8.07E-02	3.10E-02	1.58E-02	9.23E-03	1.70E-03	2.56E-04	8.14E-05	3.79E-05	2.18E-05
SW	9.95E-01	2.71E-01	4.99E-02	1.85E-02	8.99E-03	5.12E-03	9.45E-04	1.92E-04	7.45E-05	3.69E-05	2.12E-05
WSW	6.58E-01	1.80E-01	3.35E-02	1.23E-02	6.10E-03	3.53E-03	7.49E-04	1.79E-04	7.28E-05	3.71E-05	2.16E-05
W	7.34E-01	1.98E-01	3.65E-02	1.38E-02	6.90E-03	4.03E-03	8.16E-04	1.78E-04	6.99E-05	3.47E-05	1.98E-05
WNW	1.17E+00	3.01E-01	5.51E-02	2.10E-02	1.06E-02	6.14E-03	1.18E-03	2.31E-04	8.46E-05	4.03E-05	2.24E-05
NW	2.90E+00	7.71E-01	1.40E-01	5.30E-02	2.67E-02	1.54E-02	2.66E-03	3.93E-04	1.28E-04	6.02E-05	3.50E-05
NNW	3.10E+00	8.76E-01	1.73E-01	6.97E-02	3.77E-02	2.34E-02	5.74E-03	1.31E-03	4.88E-04	2.31E-04	1.27E-04
N	2.91E+00	7.72E-01	1.48E-01	5.82E-02	3.04E-02	1.83E-02	3.62E-03	6.12E-04	2.03E-04	9.53E-05	5.45E-05
NNE	1.92E+00	5.28E-01	9.87E-02	3.87E-02	2.01E-02	1.20E-02	2.61E-03	5.66E-04	2.25E-04	1.15E-04	6.68E-05
NE	1.28E+00	3.41E-01	6.41E-02	2.51E-02	1.30E-02	7.88E-03	1.80E-03	4.43E-04	1.85E-04	9.58E-05	5.62E-05
ENE	1.16E+00	3.20E-01	6.18E-02	2.53E-02	1.37E-02	8.70E-03	2.28E-03	5.80E-04	2.31E-04	1.13E-04	6.34E-05
E	8.33E-01	2.21E-01	4.23E-02	1.61E-02	7.99E-03	4.54E-03	6.87E-04	9.64E-05	3.34E-05	1.69E-05	1.04E-05
ESE	8.56E-01	2.14E-01	3.87E-02	1.51E-02	7.89E-03	4.77E-03	1.02E-03	2.10E-04	7.67E-05	3.62E-05	2.01E-05
SE	1.06E+00	2.58E-01	4.75E-02	1.78E-02	8.82E-03	5.12E-03	9.54E-04	1.54E-04	4.97E-05	2.36E-05	1.41E-05
SSE	1.44E+00	3.52E-01	6.61E-02	2.68E-02	1.41E-02	8.75E-03	2.10E-03	4.28E-04	1.47E-04	6.69E-05	3.63E-05

COOPER NUCLEAR STATION - COMBINED RELEASE - SECOND SEMIANNUAL PERIOD 1981
INDIVIDUAL ANNUAL GAMMA AIR DOSE (MILLIRADS)

SECTOR	DISTANCE IN MILES 0.500	1.000	2.000	3.000	4.000	5.000	10.00	20.00	30.00	40.00	50.00
S	1.85E+00	4.79E-01	8.77E-02	3.40E-02	1.79E-02	1.09E-02	2.53E-03	5.75E-04	2.17E-04	1.04E-04	5.74E-05
SSW	1.90E+00	5.09E-01	9.50E-02	3.65E-02	1.87E-02	1.09E-02	2.06E-03	3.29E-04	1.09E-04	5.12E-05	2.92E-05
SW	1.23E+00	3.37E-01	6.22E-02	2.31E-02	1.13E-02	6.45E-03	1.19E-03	2.42E-04	9.33E-05	4.60E-05	2.64E-05
WSW	8.63E-01	2.36E-01	4.42E-02	1.66E-02	8.39E-03	4.94E-03	1.09E-03	2.53E-04	9.96E-05	4.94E-05	2.83E-05
W	9.60E-01	2.61E-01	4.87E-02	1.86E-02	9.42E-03	5.57E-03	1.16E-03	2.50E-04	9.64E-05	4.72E-05	2.66E-05
WNW	1.43E+00	3.72E-01	6.86E-02	2.63E-02	1.33E-02	7.78E-03	1.54E-03	3.12E-04	1.15E-04	5.52E-05	3.07E-05
NW	3.35E+00	8.93E-01	1.64E-01	6.28E-02	3.19E-02	1.86E-02	3.43E-03	5.56E-04	1.85E-04	8.69E-05	4.96E-05
NNW	3.69E+00	1.05E+00	2.06E-01	8.31E-02	4.47E-02	2.77E-02	6.69E-03	1.52E-03	5.63E-04	2.68E-04	1.47E-04
N	3.48E+00	9.24E-01	1.78E-01	7.02E-02	3.69E-02	2.24E-02	4.67E-03	8.75E-04	3.08E-04	1.47E-04	8.37E-05
NNE	2.26E+00	6.17E-01	1.16E-01	4.58E-02	2.39E-02	1.45E-02	3.26E-03	7.44E-04	3.01E-04	1.54E-04	8.97E-05
NE	1.51E+00	3.97E-01	7.47E-02	2.93E-02	1.53E-02	9.34E-03	2.19E-03	5.44E-04	2.27E-04	1.17E-04	6.83E-05
ENE	1.29E+00	3.52E-01	6.80E-02	2.77E-02	1.50E-02	9.49E-03	2.48E-03	6.34E-04	2.53E-04	1.24E-04	6.96E-05
E	9.44E-01	2.50E-01	4.80E-02	1.84E-02	9.18E-03	5.27E-03	8.37E-04	1.24E-04	4.28E-05	2.13E-05	1.29E-05
ESE	9.26E-01	2.33E-01	4.23E-02	1.66E-02	8.71E-03	5.29E-03	1.16E-03	2.43E-04	8.91E-05	4.20E-05	2.32E-05
SE	1.17E+00	2.85E-01	5.27E-02	1.99E-02	9.99E-03	5.86E-03	1.15E-03	2.05E-04	7.02E-05	3.39E-05	1.98E-05
SSE	1.70E+00	4.18E-01	7.88E-02	3.19E-02	1.68E-02	1.05E-02	2.53E-03	5.35E-04	1.89E-04	8.75E-05	4.77E-05

COOPER NUCLEAR STATION - COMBINED RELEASE - ANNUAL PERIOD 1981
INDIVIDUAL ANNUAL GAMMA AIR DOSE (MILLIRADS)

SECTOR	DISTANCE IN MILES 0.500	1.000	2.000	3.000	4.000	5.000	10.00	20.00	30.00	40.00	50.00
S	7.63E+00	1.85E+00	2.46E-01	6.76E-02	2.82E-02	1.52E-02	3.09E-03	6.78E-04	2.56E-04	1.24E-04	6.92E-05
SSW	6.40E+00	1.70E+00	3.29E-01	1.32E-01	6.90E-02	4.17E-02	8.51E-03	1.43E-03	3.88E-04	1.42E-04	6.41E-05
SW	4.15E+00	1.05E+00	1.55E-01	4.75E-02	2.00E-02	1.03E-02	1.59E-03	3.09E-04	1.18E-04	5.85E-05	3.38E-05
WSW	3.75E+00	9.37E-01	1.72E-01	6.49E-02	3.28E-02	1.95E-02	3.95E-03	6.69E-04	1.97E-04	7.91E-05	3.97E-05
W	3.82E+00	1.04E+00	1.96E-01	7.43E-02	3.71E-02	2.16E-02	3.84E-03	5.30E-04	1.50E-04	6.38E-05	3.41E-05
WNW	5.31E+00	1.44E+00	2.69E-01	1.03E-01	5.12E-02	2.97E-02	4.89E-03	6.09E-04	1.66E-04	7.05E-05	3.81E-05
NW	8.72E+00	2.34E+00	4.42E-01	1.66E-01	8.51E-02	4.98E-02	8.79E-03	1.15E-03	2.97E-04	1.19E-04	6.28E-05
NNW	8.78E+00	2.39E+00	4.64E-01	1.86E-01	9.89E-02	6.08E-02	1.39E-02	2.80E-03	9.16E-04	3.88E-04	1.95E-04
N	1.11E+01	2.90E+00	5.53E-01	2.21E-01	1.18E-01	7.24E-02	1.66E-02	3.35E-03	1.10E-03	4.53E-04	2.15E-04
NNE	8.70E+00	2.31E+00	4.39E-01	1.77E-01	9.38E-02	5.73E-02	1.29E-02	2.48E-03	7.78E-04	3.13E-04	1.52E-04
NE	7.92E+00	2.03E+00	3.24E-01	9.93E-02	4.22E-02	2.06E-02	2.82E-03	6.24E-04	2.57E-04	1.31E-04	7.64E-05
ENE	8.49E+00	2.29E+00	4.55E-01	1.83E-01	9.86E-02	6.08E-02	1.40E-02	2.62E-03	7.74E-04	2.91E-04	1.29E-04
E	8.85E+00	2.34E+00	3.26E-01	8.43E-02	2.92E-02	1.23E-02	1.14E-03	1.81E-04	6.64E-05	3.36E-05	2.03E-05
ESE	9.22E+00	2.37E+00	3.48E-01	9.57E-02	3.45E-02	1.53E-02	1.61E-03	3.15E-04	1.17E-04	5.59E-05	3.12E-05
SE	8.63E+00	2.20E+00	3.17E-01	8.54E-02	3.10E-02	1.37E-02	1.52E-03	2.76E-04	1.00E-04	4.95E-05	2.90E-05
SSE	1.05E+01	2.69E+00	5.20E-01	2.10E-01	1.07E-01	6.53E-02	1.33E-02	1.99E-03	4.94E-04	1.67E-04	7.35E-05

COOPER NUCLEAR STATION : THIRD QUARTERLY PERIOD 1981 : COMBINED RELEASE
ALARA ANNUAL INTEGRATED POPULATION DOSE SUMMARY (MANREM)

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	1.09E-02 87.88%	1.09E-02 88.58%	1.09E-02 84.6[illegible]	1.09E-02 86.89%	1.09E-02 88.92%	1.09E-02 47.77%	1.11E-02 88.76%	2.47E-02 94.80%
GROUND	1.15E-03 9.31%	1.16E-03 9.39%	1.16E-03 8.96%	1.16E-03 9.21%	1.16E-03 9.42%	1.16E-03 5.06%	1.16E-03 9.26%	1.36E-03 5.20%
INHAL	8.35E-06 0.07%	1.13E-05 0.09%	2.88E-05 0.22%	1.27E-05 0.10%	9.36E-06 0.07%	8.18E-04 3.58%	1.98E-04 1.58%	0.0 0.0 %
VEGET	2.36E-04 1.90%	1.74E-04 1.41%	6.23E-04 4.88%	2.74E-04 2.19%	1.11E-04 0.91%	5.82E-03 25.50%	2.80E-05 0.22%	0.0 0.0 %
COW MILK	8.01E-05 0.65%	1.16E-05 0.09%	1.47E-04 1.14%	1.73E-04 1.38%	7.29E-05 0.59%	3.90E-03 17.08%	1.85E-05 0.15%	0.0 0.0 %
MEAT	2.45E-05 0.20%	5.29E-05 0.43%	2.56E-05 0.20%	3.02E-05 0.24%	9.91E-06 0.08%	2.30E-04 1.01%	2.97E-06 0.02%	0.0 0.0 %
TOTAL	1.24E-02	1.23E-02	1.29E-02	1.26E-02	1.23E-02	2.28E-02	1.25E-02	2.61E-02

COOPER NUCLEAR STATION : THIRD QUARTERLY PERIOD 1981 : COMBINED RELEASE
ALARA ANNUAL INTEGRATED POPULATION DOSE SUMMARY (MANREM)
PATHWAY = PLUME

NUCLIDE	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
KR 85	1.81E-06 0.02%	1.81E-06 0.02%	1.81E-06 0.02%	1.81E-06 0.02%	1.81E-06 0.02%	1.81E-06 0.02%	6.01E-06 0.05%	3.03E-04 1.23%
KR 85M	4.77E-04 4.37%	4.77E-04 4.37%	4.77E-04 4.37%	4.77E-04 4.37%	4.77E-04 4.37%	4.77E-04 4.37%	4.93E-04 4.45%	1.75E-03 7.06%
KR 87	8.19E-04 7.50%	8.19E-04 7.50%	8.19E-04 7.50%	8.19E-04 7.50%	8.19E-04 7.50%	8.19E-04 7.50%	8.47E-04 7.64%	3.64E-03 14.70%
KR 88	6.80E-03 62.31%	6.80E-03 62.31%	6.80E-03 62.31%	6.80E-03 62.31%	6.80E-03 62.31%	6.80E-03 62.31%	6.83E-03 61.61%	9.99E-03 40.38%
XE133	4.27E-04 3.92%	4.27E-04 3.92%	4.27E-04 3.92%	4.27E-04 3.92%	4.27E-04 3.92%	4.27E-04 3.92%	4.58E-04 4.13%	1.46E-03 5.89%
XE135	2.22E-03 20.36%	2.22E-03 20.36%	2.22E-03 20.36%	2.22E-03 20.36%	2.22E-03 20.36%	2.22E-03 20.36%	2.28E-03 20.58%	7.18E-03 29.01%
XE135M	1.16E-05 0.11%	1.16E-05 0.11%	1.16E-05 0.11%	1.16E-05 0.11%	1.16E-05 0.11%	1.16E-05 0.11%	1.16E-05 0.10%	1.91E-05 0.08%
XE138	1.44E-04 1.32%	1.44E-04 1.32%	1.44E-04 1.32%	1.44E-04 1.32%	1.44E-04 1.32%	1.44E-04 1.32%	1.45E-04 1.31%	3.01E-04 1.22%
KR 89	1.66E-08 0.0 %	1.66E-08 0.0 %	1.66E-08 0.0 %	1.66E-08 0.0 %	1.66E-08 0.0 %	1.66E-08 0.0 %	1.68E-08 0.0 %	3.94E-08 0.0 %
KR 83M	3.32E-09 0.0 %	3.32E-09 0.0 %	3.32E-09 0.0 %	3.32E-09 0.0 %	3.32E-09 0.0 %	3.32E-09 0.0 %	2.59E-07 0.0 %	9.41E-07 0.0 %
XE137	1.26E-08 0.0 %	1.26E-08 0.0 %	1.26E-08 0.0 %	1.26E-08 0.0 %	1.26E-08 0.0 %	1.26E-08 0.0 %	1.47E-08 0.0 %	2.31E-07 0.0 %
XE133M	9.65E-06 0.09%	9.65E-06 0.09%	9.65E-06 0.09%	9.65E-06 0.09%	9.65E-06 0.09%	9.65E-06 0.09%	1.08E-05 0.10%	9.04E-05 0.37%
XE131M	1.04E-06 0.0 %	1.04E-06 0.0 %	1.04E-06 0.0 %	1.04E-06 0.0 %	1.04E-06 0.0 %	1.04E-06 0.0 %	1.29E-06 0.01%	1.28E-05 0.05%
TOTAL	1.09E-02	1.09E-02	1.09E-02	1.09E-02	1.09E-02	1.09E-02	1.11E-02	2.47E-02

COOPER NUCLEAR STATION : THIRD QUARTERLY PERIOD 1981 : COMBINED RELEASE
ALARA ANNUAL INTEGRATED POPULATION DOSE SUMMARY (MANREM)
PATHWAY = GROUND

NUCLIDE	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
I 131	8.81E-07 0.08%	8.81E-07 0.08%	8.81E-07 0.08%	8.81E-07 0.08%	8.81E-07 0.08%	8.81E-07 0.08%	8.81E-07 0.08%	1.07E-06 0.08%
I 133	4.72E-07 0.04%	4.72E-07 0.04%	4.72E-07 0.04%	4.72E-07 0.04%	4.72E-07 0.04%	4.72E-07 0.04%	4.72E-07 0.04%	5.74E-07 0.04%
SR 89	6.91E-11 0.0 %	6.91E-11 0.0 %	6.91E-11 0.0 %	6.91E-11 0.0 %	6.91E-11 0.0 %	6.91E-11 0.0 %	6.91E-11 0.0 %	8.02E-11 0.0 %
CS134	4.60E-05 3.98%	4.60E-05 3.98%	4.60E-05 3.98%	4.60E-05 3.98%	4.60E-05 3.98%	4.60E-05 3.98%	4.60E-05 3.98%	5.37E-05 3.95%
CS137	1.40E-04 12.12%	1.40E-04 12.12%	1.40E-04 12.12%	1.40E-04 12.12%	1.40E-04 12.12%	1.40E-04 12.12%	1.40E-04 12.12%	1.63E-04 12.04%
BA140	7.81E-07 0.07%	7.81E-07 0.07%	7.81E-07 0.07%	7.81E-07 0.07%	7.81E-07 0.07%	7.81E-07 0.07%	7.81E-07 0.07%	8.73E-07 0.07%
I 131	2.53E-08 0.0 %	2.53E-08 0.0 %	2.53E-08 0.0 %	2.53E-08 0.0 %	2.53E-08 0.0 %	2.53E-08 0.0 %	2.53E-08 0.0 %	3.07E-08 0.0 %
CO 58	2.51E-07 0.02%	2.51E-07 0.02%	2.51E-07 0.02%	2.51E-07 0.02%	2.51E-07 0.02%	2.51E-07 0.02%	2.51E-07 0.02%	2.94E-07 0.02%
CO 60	9.56E-04 82.67%	9.56E-04 82.67%	9.56E-04 82.67%	9.56E-04 82.67%	9.56E-04 82.67%	9.56E-04 82.67%	9.56E-04 82.67%	1.12E-03 82.78%
MN 54	1.18E-05 1.02%	1.18E-05 1.02%	1.18E-05 1.02%	1.18E-05 1.02%	1.18E-05 1.02%	1.18E-05 1.02%	1.18E-05 1.02%	1.38E-05 1.01%
I 131	4.23E-09 0.0 %	4.23E-09 0.0 %	4.23E-09 0.0 %	4.23E-09 0.0 %	4.23E-09 0.0 %	4.23E-09 0.0 %	4.23E-09 0.0 %	5.14E-09 0.0 %
TOTAL	1.16E-03	1.16E-03	1.16E-03	1.16E-03	1.16E-03	1.16E-03	1.16E-03	1.36E-03

COOPER NUCLEAR STATION : THIRD QUARTERLY PERIOD 1981 : COMBINED RELEASE
ALARA ANNUAL INTEGRATED POPULATION DOSE SUMMARY (MANREM)
PATHWAY = INHAL

NUCLIDE	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
I 131	8.48E-07 10.16%	2.16E-07 1.91%	1.16E-06 4.01%	1.50E-06 11.78%	2.54E-06 28.02%	4.93E-04 60.31%	0.0 0.0 %	0.0 0.0 %
I 133	6.16E-07 7.38%	9.84E-07 8.69%	1.22E-06 4.24%	1.92E-06 15.08%	3.31E-06 36.56%	2.97E-04 36.29%	0.0 0.0 %	0.0 0.0 %
SR 89	1.11E-08 0.13%	3.31E-07 2.93%	3.86E-07 1.34%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	1.71E-06 0.87%	0.0 0.0 %
SR 90	1.19E-06 14.25%	1.26E-07 1.11%	1.92E-05 66.69%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	2.16E-06 1.09%	0.0 0.0 %
CS134	2.37E-06 28.44%	3.52E-08 0.31%	1.68E-06 5.83%	3.49E-06 27.48%	1.17E-06 12.92%	0.0 0.0 %	4.12E-07 0.21%	0.0 0.0 %
CS137	2.76E-06 33.03%	5.76E-08 0.51%	4.40E-06 15.27%	5.21E-06 41.00%	1.85E-06 20.39%	0.0 0.0 %	6.52E-07 0.33%	0.0 0.0 %
BA140	4.39E-08 0.53%	2.91E-06 25.74%	6.90E-07 2.40%	7.90E-10 0.0 %	2.67E-10 0.0 %	0.0 0.0 %	2.11E-05 10.69%	0.0 0.0 %
I 131	4.48E-08 0.54%	1.14E-08 0.10%	6.11E-09 0.21%	7.91E-08 0.62%	1.34E-07 1.48%	2.61E-05 3.19%	0.0 0.0 %	0.0 0.0 %
CO 58	8.22E-10 0.0 %	3.23E-08 0.29%	0.0 0.0 %	5.86E-10 0.0 %	0.0 0.0 %	0.0 0.0 %	3.53E-07 0.18%	0.0 0.0 %
CO 60	4.26E-07 5.10%	6.30E-06 55.63%	0.0 0.0 %	3.10E-07 2.44%	0.0 0.0 %	0.0 0.0 %	1.64E-04 83.05%	0.0 0.0 %
MN 54	3.37E-08 0.40%	3.15E-07 2.78%	0.0 0.0 %	1.96E-07 1.55%	4.83E-08 0.53%	0.0 0.0 %	7.09E-06 3.59%	0.0 0.0 %
I 131	3.00E-09 0.04%	7.62E-10 0.0 %	4.08E-09 0.01%	5.29E-09 0.04%	8.97E-09 0.10%	1.74E-06 0.21%	0.0 0.0 %	0.0 0.0 %
TOTAL	8.35E-06	1.13E-05	2.88E-05	1.27E-05	9.06E-06	8.18E-04	1.98E-04	0.0

COOPER NUCLEAR STATION : THIRD QUARTERLY PERIOD 1981 : COMBINED RELEASE
ALARA ANNUAL INTEGRATED POPULATION DOSE SUMMARY (MANREM)
PATHWAY = VEGET

NUCLIDE	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
I 131	9.86E-06 4.18%	3.29E-06 1.89%	1.41E-05 2.25%	1.74E-05 6.36%	2.94E-05 26.39%	5.64E-03 96.86%	0.0 0.0 %	0.0 0.0 %
I 133	6.92E-11 0.0 %	1.43E-10 0.0 %	1.38E-10 0.0 %	2.08E-10 0.0 %	3.57E-10 0.0 %	3.34E-08 0.0 %	0.0 0.0 %	0.0 0.0 %
SR 89	2.20E-06 0.93%	7.54E-06 4.33%	7.68E-05 12.21%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
SR 90	8.50E-05 36.00%	8.11E-06 4.66%	3.42E-04 54.40%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
CS134	4.98E-05 21.11%	1.12E-06 0.65%	4.38E-05 6.96%	8.97E-05 32.79%	2.85E-05 25.64%	0.0 0.0 %	9.93E-06 35.51%	0.0 0.0 %
CS137	6.52E-05 27.61%	2.12E-06 1.22%	1.31E-04 20.84%	1.54E-04 56.23%	5.15E-05 46.25%	0.0 0.0 %	1.80E-05 64.44%	0.0 0.0 %
BA140	1.28E-06 0.54%	2.64E-05 15.17%	2.06E-05 3.27%	2.22E-08 0.0 %	7.42E-09 0.0 %	0.0 0.0 %	1.32E-08 0.05%	0.0 0.0 %
I 131	2.72E-07 0.12%	9.07E-08 0.05%	3.90E-07 0.06%	4.80E-07 0.18%	9.10E-07 0.73%	1.56E-04 2.67%	0.0 0.0 %	0.0 0.0 %
CO 58	8.27E-08 0.04%	4.74E-07 0.27%	0.0 0.0 %	3.27E-08 0.01%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
CO 60	2.16E-05 9.16%	1.18E-04 67.67%	0.0 0.0 %	8.76E-06 3.20%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
MN 54	7.06E-07 0.30%	7.12E-06 4.09%	0.0 0.0 %	3.26E-06 1.19%	9.50E-07 0.85%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
I 131	4.79E-08 0.02%	1.60E-08 0.0 %	5.87E-08 0.01%	8.46E-08 0.03%	1.43E-07 0.13%	2.74E-05 0.47%	0.0 0.0 %	0.0 0.0 %
TOTAL	2.36E-04	1.74E-04	5.29E-04	2.74E-04	1.11E-04	5.82E-03	2.80E-05	0.0

COOPER NUCLEAR STATION : THIRD QUARTERLY PERIOD 1981 : COMBINED RELEASE
ALARA ANNUAL INTEGRATED POPULATION DOSE SUMMARY (MANREM)
PATHWAY = COW MILK

NUCLIDE	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
I 131	6.55E-06 8.18%	2.03E-06 17.44%	9.67E-06 5.60%	1.16E-05 5.70%	1.95E-05 26.74%	3.75E-03 96.14%	0.0 0.0 %	0.0 0.0 %
I 133	6.01E-08 0.08%	1.16E-07 0.99%	1.21E-07 0.08%	1.78E-07 0.10%	3.04E-07 0.42%	2.90E-05 0.74%	0.0 0.0 %	0.0 0.0 %
SR 89	9.67E-08 0.12%	3.00E-07 2.58%	3.38E-06 2.30%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
SR 90	3.57E-06 4.46%	3.24E-07 2.79%	1.43E-05 9.78%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
CS134	2.99E-05 37.32%	6.85E-07 5.89%	2.97E-05 20.27%	5.93E-05 34.27%	1.88E-05 25.75%	0.0 0.0 %	6.59E-06 35.64%	0.0 0.0 %
CS137	3.85E-05 48.00%	1.28E-06 11.04%	8.84E-05 60.29%	1.01E-04 58.41%	3.37E-05 46.20%	0.0 0.0 %	1.19E-05 64.35%	0.0 0.0 %
BA140	4.09E-08 0.05%	7.71E-07 6.64%	6.65E-07 0.45%	6.97E-10 0.0 %	2.32E-10 0.0 %	0.0 0.0 %	4.17E-10 0.0 %	0.0 0.0 %
I 131	1.81E-07 0.23%	5.60E-08 0.48%	2.67E-07 0.18%	3.20E-07 0.18%	5.30E-07 0.74%	1.04E-04 2.65%	0.0 0.0 %	0.0 0.0 %
CO 58	4.43E-09 0.0 %	2.28E-08 0.20%	0.0 0.0 %	1.71E-09 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
CO 60	1.21E-06 1.51%	5.94E-06 51.12%	0.0 0.0 %	4.80E-07 0.28%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
MN 54	9.71E-09 0.01%	8.76E-08 0.75%	0.0 0.0 %	4.37E-08 0.03%	1.27E-08 0.02%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
I 131	3.19E-08 0.04%	9.85E-09 0.08%	4.70E-08 0.03%	5.63E-08 0.03%	9.48E-08 0.13%	1.82E-05 0.47%	0.0 0.0 %	0.0 0.0 %
TOTAL	8.01E-05	1.16E-05	1.47E-04	1.73E-04	7.29E-05	3.90E-03	1.85E-05	0.0

COOPER NUCLEAR STATION : THIRD QUARTERLY PERIOD 1981 : COMBINED RELEASE
ALARA ANNUAL INTEGRATED POPULATION DOSE SUMMARY (MANREM)
PATHWAY = MEAT

NUCLIDE	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
I 131	3.90E-07 1.59%	1.53E-07 0.29%	5.22E-07 2.03%	6.86E-07 2.27%	1.17E-06 11.78%	2.23E-04 96.86%	0.0 0.0 %	0.0 0.0 %
I 133	3.62E-14 0.0 %	8.87E-14 0.0 %	7.06E-14 0.0 %	1.13E-13 0.0 %	1.96E-13 0.0 %	1.75E-11 0.0 %	0.0 0.0 %	0.0 0.0 %
SR 89	2.56E-08 0.10%	1.11E-07 0.21%	8.94E-07 3.48%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
SR 90	1.40E-06 5.69%	1.49E-07 0.28%	5.66E-06 22.07%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
CS134	6.58E-06 26.81%	1.45E-07 0.27%	4.46E-06 17.38%	9.78E-06 32.40%	3.14E-06 31.65%	0.0 0.0 %	1.07E-06 36.00%	0.0 0.0 %
CS137	8.64E-06 35.22%	2.68E-07 0.51%	1.31E-05 51.09%	1.65E-05 54.54%	5.54E-06 55.97%	0.0 0.0 %	1.90E-06 63.98%	0.0 0.0 %
BA140	6.32E-08 0.26%	1.60E-06 3.02%	9.95E-07 3.88%	1.15E-09 0.0 %	3.87E-10 0.0 %	0.0 0.0 %	6.73E-10 0.02%	0.0 0.0 %
I 131	1.08E-08 0.04%	4.21E-09 0.0 %	1.44E-08 0.06%	1.89E-08 0.06%	3.22E-08 0.33%	6.16E-06 2.67%	0.0 0.0 %	0.0 0.0 %
CO 58	2.33E-08 0.09%	1.67E-07 0.32%	0.0 0.0 %	9.74E-09 0.03%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
CO 60	7.39E-06 30.11%	5.01E-05 94.76%	0.0 0.0 %	3.15E-06 10.45%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
MN 54	1.42E-08 0.06%	1.80E-07 0.34%	0.0 0.0 %	6.95E-08 0.23%	2.05E-08 0.21%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
I 131	1.90E-09 0.0 %	7.42E-10 0.0 %	2.54E-09 0.0 %	3.34E-09 0.01%	5.67E-09 0.06%	1.08E-06 0.47%	0.0 0.0 %	0.0 0.0 %
TOTAL	2.45E-05	5.29E-05	2.56E-05	3.02E-05	9.91E-06	2.30E-04	2.97E-06	0.0

COOPER NUCLEAR STATION : THIRD QUARTERLY PERIOD 1981 : COMBINED RELEASE
ALARA ANNUAL INTEGRATED POPULATION DOSE SUMMARY (MANREM)
PATHWAY = *TOTAL*

NUCLIDE	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
KR 85	1.81E-06 0.01%	1.81E-06 0.01%	1.81E-06 0.01%	1.81E-06 0.01%	1.81E-06 0.01%	1.81E-06 0.0 %	6.01E-06 0.05%	3.03E-04 1.16%
KR 85M	4.77E-04 3.84%	4.77E-04 3.88%	4.77E-04 3.70%	4.77E-04 3.80%	4.77E-04 3.89%	4.77E-04 2.09%	4.93E-04 3.95%	1.75E-03 6.70%
KR 87	8.19E-04 6.59%	8.19E-04 6.65%	8.19E-04 6.35%	8.19E-04 6.52%	8.19E-04 6.67%	8.19E-04 3.59%	8.47E-04 6.78%	3.64E-03 13.94%
KR 88	6.80E-03 54.75%	6.80E-03 55.20%	6.80E-03 52.71%	6.80E-03 54.14%	6.80E-03 55.41%	6.80E-03 29.77%	6.83E-03 54.69%	9.99E-03 38.28%
XE133	4.27E-04 3.44%	4.27E-04 3.47%	4.27E-04 3.31%	4.27E-04 3.40%	4.27E-04 3.48%	4.27E-04 1.87%	4.58E-04 3.67%	1.46E-03 5.59%
XE135	2.22E-03 17.89%	2.22E-03 18.05%	2.22E-03 17.22%	2.22E-03 17.69%	2.22E-03 18.10%	2.22E-03 9.73%	2.28E-03 18.27%	7.18E-03 27.50%
XE135M	1.16E-05 0.09%	1.16E-05 0.09%	1.16E-05 0.09%	1.16E-05 0.09%	1.16E-05 0.09%	1.16E-05 0.05%	1.16E-05 0.09%	1.91E-05 0.07%
XE138	1.44E-04 1.14%	1.44E-04 1.17%	1.44E-04 1.11%	1.44E-04 1.15%	1.44E-04 1.17%	1.44E-04 0.63%	1.45E-04 1.16%	3.01E-04 1.15%
KR 89	1.66E-08 0.0 %	1.66E-08 0.0 %	1.66E-08 0.0 %	1.66E-08 0.0 %	1.66E-08 0.0 %	1.66E-08 0.0 %	1.68E-08 0.0 %	3.94E-08 0.0 %
KR 89M	3.32E-09 0.0 %	3.32E-09 0.0 %	3.32E-09 0.0 %	3.32E-09 0.0 %	3.32E-09 0.0 %	3.32E-09 0.0 %	2.59E-07 0.0 %	9.41E-07 0.0 %
XE137	1.26E-08 0.0 %	1.26E-08 0.0 %	1.26E-08 0.0 %	1.26E-08 0.0 %	1.26E-08 0.0 %	1.26E-08 0.0 %	1.47E-08 0.0 %	2.31E-07 0.0 %
XE133M	9.65E-06 0.08%	9.65E-06 0.08%	9.65E-06 0.07%	9.65E-06 0.08%	9.65E-06 0.08%	9.65E-06 0.04%	1.08E-05 0.09%	9.04E-05 0.35%
XE131M	1.04E-06 0.0 %	1.04E-06 0.0 %	1.04E-06 0.0 %	1.04E-06 0.0 %	1.04E-06 0.0 %	1.04E-06 0.0 %	1.29E-06 0.01%	1.28E-05 0.05%
I 131	1.85E-05 0.15%	6.56E-06 0.05%	2.44E-05 0.20%	3.21E-05 0.26%	5.35E-05 0.44%	1.01E-02 44.26%	8.81E-07 0.0 %	1.07E-06 0.0 %
I 133	1.15E-06 0.0 %	1.57E-06 0.01%	1.81E-06 0.01%	2.57E-06 0.02%	4.09E-06 0.03%	3.26E-04 1.43%	4.71E-07 0.0 %	5.74E-07 0.0 %
SR 89	2.33E-06 0.02%	8.28E-06 0.07%	8.15E-05 0.63%	6.91E-11 0.0 %	6.91E-11 0.0 %	6.91E-11 0.0 %	1.71E-06 0.01%	8.02E-11 0.0 %
SR 90	9.11E-05 0.73%	8.71E-06 0.07%	3.82E-04 2.96%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	2.16E-06 0.02%	0.0 0.0 %
CS134	1.35E-04 1.08%	4.80E-05 0.39%	1.26E-04 0.97%	2.08E-04 1.66%	9.76E-05 0.80%	4.60E-05 0.20%	6.40E-05 0.51%	5.37E-05 0.21%
CS137	2.55E-04 2.06%	1.44E-04 1.17%	3.77E-04 2.92%	4.17E-04 3.32%	2.33E-04 1.90%	1.40E-04 0.61%	1.73E-04 1.38%	1.63E-04 0.63%
BA140	2.21E-06 0.02%	3.25E-05 0.26%	2.37E-05 0.18%	8.06E-07 0.0 %	7.90E-07 0.0 %	7.81E-07 0.0 %	2.19E-05 0.18%	8.93E-07 0.0 %
I 131	5.34E-07 0.0 %	1.87E-07 0.0 %	7.58E-07 0.0 %	9.23E-07 0.0 %	1.54E-06 0.01%	2.91E-04 1.28%	2.53E-08 0.0 %	3.07E-08 0.0 %
CO 58	3.63E-07 0.0 %	9.48E-07 0.0 %	2.51E-07 0.0 %	2.96E-07 0.0 %	2.51E-07 0.0 %	2.51E-07 0.0 %	6.04E-07 0.0 %	2.94E-07 0.0 %
CO 60	9.86E-04 7.95%	1.14E-03 9.22%	9.56E-04 7.41%	9.68E-04 7.71%	9.56E-04 7.79%	9.56E-04 4.18%	1.12E-03 8.97%	1.12E-03 4.31%
MN 54	1.25E-05 0.10%	1.95E-05 0.16%	1.18E-05 0.09%	1.53E-05 0.12%	1.28E-05 0.10%	1.18E-05 0.05%	1.88E-05 0.15%	1.38E-05 0.05%
I 131	8.89E-08 0.0 %	3.16E-08 0.0 %	1.27E-07 0.0 %	1.54E-07 0.0 %	2.56E-07 0.0 %	4.85E-05 0.21%	4.23E-09 0.0 %	5.14E-09 0.0 %
TOTAL	1.24E-02	1.23E-02	1.29E-02	1.26E-02	1.23E-02	2.20E-02	1.25E-02	2.61E-02

COOPER NUCLEAR STATION : FOURTH QUARTERLY PERIOD 1981 : COMBINED RELEASE
ALARA ANNUAL INTEGRATED POPULATION DOSE SUMMARY (MANREM)

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	5.05E-02 98.20%	5.05E-02 98.73%	5.05E-02 95.02%	5.05E-02 98.66%	5.05E-02 98.87%	5.05E-02 88.56%	5.13E-02 98.82%	1.15E-01 99.51%
GROUND	4.86E-04 0.95%	4.86E-04 0.95%	4.86E-04 0.92%	4.86E-04 0.95%	4.86E-04 0.95%	4.86E-04 0.85%	4.86E-04 0.94%	5.72E-04 0.49%
INHAL	7.68E-06 0.01%	7.51E-06 0.01%	7.96E-05 0.15%	5.52E-06 0.01%	4.66E-06 0.01%	4.55E-04 0.80%	1.06E-04 0.20%	0.0 0.0 %
VEGET	3.71E-04 0.72%	1.26E-04 0.25%	1.45E-03 2.74%	1.11E-04 0.22%	4.86E-05 0.10%	3.27E-03 5.73%	1.09E-05 0.02%	0.0 0.0 %
COW MILK	4.46E-05 0.09%	7.12E-06 0.01%	1.08E-04 0.20%	6.97E-05 0.14%	3.19E-05 0.06%	2.19E-03 3.84%	7.20E-06 0.01%	0.0 0.0 %
MEAT	1.48E-05 0.03%	2.55E-05 0.05%	2.96E-05 0.06%	1.21E-05 0.02%	4.07E-06 0.01%	1.29E-04 0.23%	1.16E-06 0.00%	0.0 0.0 %
TOTAL	5.15E-02	5.12E-02	5.27E-02	5.12E-02	5.11E-02	5.71E-02	5.20E-02	1.16E-01

COOPER NUCLEAR STATION : FOURTH QUARTERLY PERIOD 1981 : COMBINED RELEASE
ALARA ANNUAL INTEGRATED POPULATION DOSE SUMMARY (MANREM)
PATHWAY = PLUME

NUCLIDE	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
KR 85	1.69E-06 0.0 %	1.69E-06 0.0 %	1.69E-06 0.0 %	1.69E-06 0.0 %	1.69E-06 0.0 %	1.69E-06 0.0 %	5.61E-06 0.01%	2.83E-04 0.25%
KR 85M	1.29E-03 2.55%	1.29E-03 2.55%	1.29E-03 2.55%	1.29E-03 2.55%	1.29E-03 2.55%	1.29E-03 2.55%	1.33E-03 2.59%	4.72E-03 4.10%
KR 87	4.07E-03 8.05%	4.07E-03 8.05%	4.07E-03 8.05%	4.07E-03 8.05%	4.07E-03 8.05%	4.07E-03 8.05%	4.21E-03 8.20%	1.81E-02 15.71%
KR 88	3.06E-02 60.56%	3.06E-02 60.56%	3.06E-02 60.56%	3.06E-02 60.56%	3.06E-02 60.56%	3.06E-02 60.56%	3.07E-02 59.87%	4.50E-02 39.08%
XE133	2.15E-03 4.26%	2.15E-03 4.26%	2.15E-03 4.26%	2.15E-03 4.26%	2.15E-03 4.26%	2.15E-03 4.26%	2.31E-03 4.49%	7.35E-03 6.39%
XE135	1.17E-02 23.10%	1.17E-02 23.10%	1.17E-02 23.10%	1.17E-02 23.10%	1.17E-02 23.10%	1.17E-02 23.10%	1.20E-02 23.36%	3.77E-02 32.78%
XE135M	5.18E-05 0.10%	5.18E-05 0.10%	5.18E-05 0.10%	5.18E-05 0.10%	5.18E-05 0.10%	5.18E-05 0.10%	5.21E-05 0.10%	8.55E-05 0.07%
XE138	6.33E-04 1.25%	6.33E-04 1.25%	6.33E-04 1.25%	6.33E-04 1.25%	6.33E-04 1.25%	6.33E-04 1.25%	6.40E-04 1.25%	1.32E-03 1.15%
KR 89	9.72E-08 0.0 %	9.72E-08 0.0 %	9.72E-08 0.0 %	9.72E-08 0.0 %	9.72E-08 0.0 %	9.72E-08 0.0 %	9.85E-08 0.0 %	2.31E-07 0.0 %
KR 83M	1.66E-08 0.0 %	1.66E-08 0.0 %	1.66E-08 0.0 %	1.66E-08 0.0 %	1.66E-08 0.0 %	1.66E-08 0.0 %	1.29E-06 0.0 %	4.70E-06 0.0 %
XE137	5.89E-08 0.0 %	5.89E-08 0.0 %	5.89E-08 0.0 %	5.89E-08 0.0 %	5.89E-08 0.0 %	5.89E-08 0.0 %	6.91E-08 0.0 %	1.08E-06 0.0 %
XE133M	5.49E-05 0.11%	5.49E-05 0.11%	5.49E-05 0.11%	5.49E-05 0.11%	5.49E-05 0.11%	5.49E-05 0.11%	6.13E-05 0.12%	5.14E-04 0.45%
XE131M	2.04E-06 0.0 %	2.04E-06 0.0 %	2.04E-06 0.0 %	2.04E-06 0.0 %	2.04E-06 0.0 %	2.04E-06 0.0 %	2.53E-06 0.0 %	2.51E-05 0.02%
TOTAL	5.05E-02	5.05E-02	5.05E-02	5.05E-02	5.05E-02	5.05E-02	5.13E-02	1.15E-01

COOPER NUCLEAR STATION : FOURTH QUARTERLY PERIOD 1981 : COMBINED RELEASE
ALARA ANNUAL INTEGRATED POPULATION DOSE SUMMARY (MANREM)
PATHWAY = GROUND

NUCLIDE	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
I 131	4.61E-07 0.09%	4.61E-07 0.09%	4.61E-07 0.09%	4.61E-07 0.09%	4.61E-07 0.09%	4.61E-07 0.09%	4.61E-07 0.09%	5.60E-07 0.10%
I 133	2.85E-07 0.06%	2.85E-07 0.06%	2.85E-07 0.06%	2.85E-07 0.06%	2.85E-07 0.06%	2.85E-07 0.06%	2.85E-07 0.06%	3.46E-07 0.06%
SR 89	1.08E-10 0.0 %	1.08E-10 0.0 %	1.08E-10 0.0 %	1.08E-10 0.0 %	1.08E-10 0.0 %	1.08E-10 0.0 %	1.08E-10 0.0 %	1.26E-10 0.0 %
CS134	2.00E-05 4.11%	2.00E-05 4.11%	2.00E-05 4.11%	2.00E-05 4.11%	2.00E-05 4.11%	2.00E-05 4.11%	2.00E-05 4.11%	2.33E-05 4.08%
CS137	4.64E-05 9.54%	4.64E-05 9.54%	4.64E-05 9.54%	4.64E-05 9.54%	4.64E-05 9.54%	4.64E-05 9.54%	4.64E-05 9.54%	5.41E-05 9.47%
BA140	6.65E-07 0.14%	6.65E-07 0.14%	6.65E-07 0.14%	6.65E-07 0.14%	6.65E-07 0.14%	6.65E-07 0.14%	6.65E-07 0.14%	7.60E-07 0.13%
I 131	2.55E-08 0.0 %	2.55E-08 0.0 %	2.55E-08 0.0 %	2.55E-08 0.0 %	2.55E-08 0.0 %	2.55E-08 0.0 %	2.55E-08 0.0 %	3.09E-08 0.0 %
CO 58	7.51E-08 0.02%	7.51E-08 0.02%	7.51E-08 0.02%	7.51E-08 0.02%	7.51E-08 0.02%	7.51E-08 0.02%	7.51E-08 0.02%	8.80E-08 0.02%
CO 60	4.13E-04 84.96%	4.13E-04 84.96%	4.13E-04 84.96%	4.13E-04 84.96%	4.13E-04 84.96%	4.13E-04 84.96%	4.13E-04 84.96%	4.86E-04 85.06%
MN 54	5.29E-06 1.09%	5.29E-06 1.09%	5.29E-06 1.09%	5.29E-06 1.09%	5.29E-06 1.09%	5.29E-06 1.09%	5.29E-06 1.09%	6.20E-06 1.09%
I 131	1.40E-09 0.0 %	1.40E-09 0.0 %	1.40E-09 0.0 %	1.40E-09 0.0 %	1.40E-09 0.0 %	1.40E-09 0.0 %	1.40E-09 0.0 %	1.70E-09 0.0 %
TOTAL	4.86E-04	4.86E-04	4.86E-04	4.86E-04	4.86E-04	4.86E-04	4.86E-04	5.72E-04

COOPER NUCLEAR STATION : FOURTH QUARTERLY PERIOD 1981 : COMBINED RELEASE
ALARA ANNUAL INTEGRATED POPULATION DOSE SUMMARY (MANREM)
PATHWAY = INHAL

NUCLIDE	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
I 131	4.01E-07 5.22%	1.02E-07 1.36%	5.46E-07 0.69%	7.07E-07 12.82%	1.20E-06 25.72%	2.33E-04 51.15%	0.0 0.0 %	0.0 0.0 %
I 133	4.06E-07 5.29%	6.48E-07 8.64%	8.05E-07 1.01%	1.26E-06 22.91%	2.18E-06 46.82%	1.96E-04 42.95%	0.0 0.0 %	0.0 0.0 %
SR 89	2.08E-08 0.27%	6.22E-07 8.29%	7.24E-07 0.91%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	3.21E-06 3.04%	0.0 0.0 %
SR 90	4.62E-06 60.21%	4.89E-07 6.51%	7.46E-05 93.75%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	8.38E-06 7.93%	0.0 0.0 %
CS134	1.02E-06 13.30%	1.51E-08 0.20%	7.22E-07 0.91%	1.50E-06 27.22%	5.03E-07 10.79%	0.0 0.0 %	1.77E-07 0.17%	0.0 0.0 %
CS137	9.20E-07 11.99%	1.92E-08 0.26%	1.47E-06 1.85%	1.74E-06 31.53%	6.17E-07 13.23%	0.0 0.0 %	2.18E-07 0.21%	0.0 0.0 %
BA140	4.13E-08 0.54%	2.75E-06 36.58%	6.51E-07 0.82%	7.45E-10 0.01%	2.51E-10 0.0 %	0.0 0.0 %	1.99E-05 18.85%	0.0 0.0 %
I 131	4.51E-08 0.59%	1.15E-08 0.15%	6.15E-08 0.08%	7.96E-08 1.44%	1.35E-07 2.90%	2.62E-05 5.76%	0.0 0.0 %	0.0 0.0 %
CO 58	2.65E-10 0.0 %	1.04E-08 0.14%	0.0 0.0 %	1.89E-10 0.0 %	0.0 0.0 %	0.0 0.0 %	1.14E-07 0.11%	0.0 0.0 %
CO 60	1.83E-07 2.38%	2.70E-06 35.98%	0.0 0.0 %	1.33E-07 2.41%	0.0 0.0 %	0.0 0.0 %	7.04E-05 66.67%	0.0 0.0 %
MN 54	1.52E-08 0.20%	1.42E-07 1.89%	0.0 0.0 %	8.85E-08 1.60%	2.17E-08 0.47%	0.0 0.0 %	3.19E-06 3.02%	0.0 0.0 %
I 131	1.08E-09 0.01%	2.73E-10 0.0 %	1.46E-09 0.0 %	1.90E-09 0.03%	3.22E-09 0.07%	6.25E-07 0.14%	0.0 0.0 %	0.0 0.0 %
TOTAL	7.68E-06	7.51E-06	7.96E-05	5.52E-06	4.66E-06	4.55E-04	1.06E-04	0.0

COOPER NUCLEAR STATION : FOURTH QUARTERLY PERIOD 1981 : COMBINED RELEASE
ALARA ANNUAL INTEGRATED POPULATION DOSE SUMMARY (MANREM)
PATHWAY = VEGET

NUCLIDE	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
I 131	5.40E-06 1.46%	1.80E-06 1.43%	7.75E-06 0.54%	9.54E-06 8.60%	1.61E-05 33.09%	3.09E-03 94.61%	0.0 0.0 %	0.0 0.0 %
I 133	4.42E-11 0.0 %	9.15E-11 0.0 %	8.84E-11 0.0 %	1.33E-10 0.0 %	2.28E-10 0.0 %	2.13E-08 0.0 %	0.0 0.0 %	0.0 0.0 %
SR 89	3.58E-06 0.96%	1.23E-05 9.78%	1.25E-04 8.65%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
SR 90	3.05E-04 82.10%	2.91E-05 23.17%	1.23E-03 84.94%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
CS134	2.29E-05 6.18%	5.18E-07 0.41%	2.02E-05 1.39%	4.13E-05 37.26%	1.31E-05 27.01%	0.0 0.0 %	4.57E-06 41.96%	0.0 0.0 %
CS137	2.28E-05 6.15%	7.41E-07 0.59%	4.59E-05 3.18%	5.39E-05 48.61%	1.80E-05 37.06%	0.0 0.0 %	6.31E-06 57.93%	0.0 0.0 %
BA140	1.14E-06 0.31%	2.35E-05 18.71%	1.83E-05 1.27%	1.97E-08 0.02%	6.60E-09 0.01%	0.0 0.0 %	1.17E-08 0.11%	0.0 0.0 %
I 131	2.91E-07 0.08%	9.71E-08 0.08%	4.18E-07 0.03%	5.14E-07 0.46%	8.68E-07 1.79%	1.67E-04 5.10%	0.0 0.0 %	0.0 0.0 %
CO 58	2.60E-08 0.0 %	1.49E-07 0.12%	0.0 0.0 %	1.03E-08 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
CO 60	9.90E-06 2.67%	5.40E-05 43.00%	0.0 0.0 %	4.01E-06 3.62%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
MN 54	3.36E-07 0.09%	3.39E-06 2.70%	0.0 0.0 %	1.55E-06 1.40%	4.53E-07 0.93%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
I 131	1.65E-08 0.0 %	5.49E-09 0.0 %	2.36E-08 0.0 %	2.91E-08 0.03%	4.91E-08 0.10%	9.42E-06 0.29%	0.0 0.0 %	0.0 0.0 %
TOTAL	3.71E-04	1.26E-04	1.45E-03	1.11E-04	4.86E-05	3.27E-03	1.09E-05	0.0

COOPER NUCLEAR STATION : FOURTH QUARTERLY PERIOD 1981 : COMBINED RELEASE
ALARA ANNUAL INTEGRATED POPULATION DOSE SUMMARY (MANREM)
PATHWAY = COW MILK

NUCLIDE	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
I 131	3.59E-06 8.05%	1.11E-06 15.60%	5.30E-06 4.92%	6.35E-06 9.11%	1.07E-05 33.46%	2.06E-03 93.81%	0.0 0.0 %	0.0 0.0 %
I 133	3.84E-08 0.09%	7.38E-08 1.04%	7.75E-08 0.07%	1.13E-07 0.16%	1.94E-07 0.61%	1.85E-05 0.85%	0.0 0.0 %	0.0 0.0 %
SR 89	1.57E-07 0.35%	4.88E-07 6.85%	5.50E-06 5.10%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
SR 90	1.28E-05 28.69%	1.16E-06 16.31%	5.14E-05 47.69%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
CS134	1.38E-05 30.84%	3.15E-07 4.43%	1.37E-05 12.68%	2.73E-05 39.12%	8.65E-06 27.06%	0.0 0.0 %	3.03E-06 42.13%	0.0 0.0 %
CS137	1.35E-05 30.18%	4.49E-07 6.31%	3.10E-05 28.70%	3.54E-05 50.74%	1.18E-05 36.94%	0.0 0.0 %	4.17E-06 57.87%	0.0 0.0 %
BA140	3.64E-08 0.08%	6.86E-07 9.63%	5.91E-07 0.55%	6.20E-10 0.0 %	2.07E-10 0.0 %	0.0 0.0 %	3.71E-10 0.0 %	0.0 0.0 %
I 131	1.94E-07 0.43%	6.00E-08 0.84%	2.86E-07 0.27%	3.43E-07 0.49%	5.77E-07 1.81%	1.11E-04 5.06%	0.0 0.0 %	0.0 0.0 %
CO 58	1.39E-09 0.0 %	7.18E-09 0.10%	0.0 0.0 %	5.38E-10 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
CO 60	5.54E-07 1.24%	2.72E-06 38.24%	0.0 0.0 %	2.20E-07 0.32%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
MN 54	4.63E-09 0.01%	4.18E-08 0.59%	0.0 0.0 %	2.08E-08 0.03%	6.05E-09 0.02%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
I 131	1.10E-08 0.02%	3.39E-09 0.05%	1.62E-08 0.01%	1.94E-08 0.03%	3.26E-08 0.10%	6.27E-06 0.29%	0.0 0.0 %	0.0 0.0 %
TOTAL	4.46E-05	7.12E-06	1.08E-04	6.97E-05	3.19E-05	2.19E-03	7.20E-06	0.0

COOPER NUCLEAR STATION : FOURTH QUARTERLY PERIOD 1981 : COMBINED RELEASE
ALARA ANNUAL INTEGRATED POPULATION DOSE SUMMARY (MANREM)
PATHWAY = MEAT

NUCLIDE	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
I 131	2.14E-07 1.45%	8.36E-08 0.33%	2.86E-07 0.97%	3.76E-07 3.10%	6.40E-07 15.71%	1.22E-04 94.61%	0.0 0.0 %	0.0 0.0 %
I 133	2.31E-14 0.0 %	5.66E-14 0.0 %	4.51E-14 0.0 %	7.22E-14 0.0 %	1.25E-13 0.0 %	1.11E-11 0.0 %	0.0 0.0 %	0.0 0.0 %
SR 89	4.17E-08 0.28%	1.80E-07 0.71%	1.46E-06 4.92%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
SR 90	5.01E-06 33.88%	5.33E-07 2.09%	2.03E-05 68.61%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
CS134	3.03E-06 20.48%	6.66E-08 0.26%	2.05E-06 6.94%	4.50E-06 37.06%	1.44E-06 35.45%	0.0 0.0 %	4.92E-07 42.49%	0.0 0.0 %
CS137	3.02E-06 20.46%	9.37E-08 0.37%	4.59E-06 15.52%	5.76E-06 47.46%	1.94E-06 47.69%	0.0 0.0 %	6.66E-07 57.46%	0.0 0.0 %
BA140	5.62E-08 0.38%	1.42E-06 5.57%	8.84E-07 2.99%	1.02E-09 0.0 %	3.44E-10 0.0 %	0.0 0.0 %	5.98E-10 0.05%	0.0 0.0 %
I 131	1.15E-08 0.08%	4.51E-09 0.02%	1.54E-08 0.05%	2.03E-08 0.17%	3.45E-08 0.85%	6.59E-06 5.10%	0.0 0.0 %	0.0 0.0 %
CO 58	7.32E-09 0.05%	5.25E-08 0.21%	0.0 0.0 %	3.88E-09 0.03%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
CO 60	3.38E-06 22.90%	2.30E-05 90.11%	0.0 0.0 %	1.44E-06 11.90%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
MN 54	6.77E-09 0.05%	8.58E-08 0.34%	0.0 0.0 %	3.31E-08 0.27%	9.76E-09 0.24%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
I 131	6.52E-10 0.0 %	2.55E-10 0.0 %	8.72E-10 0.0 %	1.15E-09 0.0 %	1.95E-09 0.05%	3.73E-07 0.29%	0.0 0.0 %	0.0 0.0 %
TOTAL	1.48E-05	2.55E-05	2.96E-05	1.21E-05	4.07E-06	1.29E-04	1.16E-06	0.0

COOPER NUCLEAR STATION : FOURTH QUARTERLY PERIOD 1981 : COMBINED RELEASE
ALARA ANNUAL INTEGRATED POPULATION DOSE SUMMARY (MANREM)
PATHWAY = *TOTAL*

NUCLIDE	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
KR 85	1.69E-06 0.0 %	1.69E-06 0.0 %	1.69E-06 0.0 %	1.69E-06 0.0 %	1.69E-06 0.0 %	1.69E-06 0.0 %	5.61E-06 0.01%	2.83E-04 0.24%
KR 85M	1.29E-03 2.50%	1.29E-03 2.52%	1.29E-03 2.45%	1.29E-03 2.52%	1.29E-03 2.52%	1.29E-03 2.26%	1.33E-03 2.56%	4.72E-03 4.08%
KR 87	4.07E-03 7.91%	4.07E-03 7.95%	4.07E-03 7.73%	4.07E-03 7.95%	4.07E-03 7.96%	4.07E-03 7.13%	4.21E-03 8.10%	1.81E-02 15.63%
KR 88	3.06E-02 59.47%	3.06E-02 59.79%	3.06E-02 58.09%	3.06E-02 59.75%	3.06E-02 59.88%	3.06E-02 53.63%	3.07E-02 59.17%	4.50E-02 38.88%
XE133	2.15E-03 4.19%	2.15E-03 4.21%	2.15E-03 4.09%	2.15E-03 4.21%	2.15E-03 4.21%	2.15E-03 3.78%	2.31E-03 4.44%	7.35E-03 6.36%
XE135	1.17E-02 22.69%	1.17E-02 22.81%	1.17E-02 22.16%	1.17E-02 22.80%	1.17E-02 22.84%	1.17E-02 20.46%	1.20E-02 23.08%	3.77E-02 32.62%
XE135M	5.18E-05 0.10%	5.13E-05 0.10%	5.18E-05 0.10%	5.18E-05 0.10%	5.18E-05 0.10%	5.18E-05 0.09%	5.21E-05 0.10%	8.55E-05 0.07%
XE138	6.33E-04 1.23%	6.33E-04 1.24%	6.33E-04 1.20%	6.33E-04 1.24%	6.33E-04 1.24%	6.33E-04 1.11%	6.40E-04 1.23%	1.32E-03 1.14%
KR 89	9.72E-08 0.0 %	9.72E-08 0.0 %	9.72E-08 0.0 %	9.72E-08 0.0 %	9.72E-08 0.0 %	9.72E-08 0.0 %	9.85E-08 0.0 %	2.31E-07 0.0 %
KR 83M	1.66E-08 0.0 %	1.66E-08 0.0 %	1.66E-08 0.0 %	1.66E-08 0.0 %	1.66E-08 0.0 %	1.66E-08 0.0 %	1.29E-06 0.0 %	4.70E-06 0.0 %
XE137	5.89E-08 0.0 %	5.89E-08 0.0 %	5.89E-08 0.0 %	5.89E-08 0.0 %	5.89E-08 0.0 %	5.89E-08 0.0 %	6.91E-08 0.0 %	1.08E-06 0.0 %
XE133M	5.49E-05 0.11%	5.49E-05 0.11%	5.49E-05 0.10%	5.49E-05 0.11%	5.49E-05 0.11%	5.49E-05 0.10%	6.13E-05 0.12%	5.14E-04 0.44%
XE131M	2.04E-06 0.0 %	2.04E-06 0.0 %	2.04E-06 0.0 %	2.04E-06 0.0 %	2.04E-06 0.0 %	2.04E-06 0.0 %	2.53E-06 0.0 %	2.51E-05 0.02%
I 131	1.01E-05 0.02%	3.56E-06 0.0 %	1.43E-05 0.03%	1.74E-05 0.03%	2.91E-05 0.06%	5.50E-03 9.64%	4.61E-07 0.0 %	5.60E-07 0.0 %
I 133	7.29E-07 0.0 %	1.01E-06 0.0 %	1.17E-06 0.0 %	1.66E-06 0.0 %	2.66E-06 0.0 %	2.14E-04 0.38%	2.85E-07 0.0 %	3.46E-07 0.0 %
SR 89	3.80E-06 0.0 %	1.36E-05 0.03%	1.33E-04 0.25%	1.08E-10 0.0 %	1.08E-10 0.0 %	1.08E-10 0.0 %	3.21E-06 0.0 %	1.26E-10 0.0 %
SR 90	3.27E-04 0.64%	3.13E-05 0.06%	1.37E-03 2.61%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	8.38E-06 0.02%	0.0 0.0 %
CS134	6.07E-05 0.12%	2.09E-05 0.04%	5.66E-05 0.11%	9.46E-05 0.18%	4.37E-05 0.09%	2.00E-05 0.04%	2.83E-05 0.05%	2.33E-05 0.02%
CS137	8.66E-05 0.17%	4.77E-05 0.09%	1.29E-04 0.25%	1.43E-04 0.28%	7.88E-05 0.15%	4.64E-05 0.08%	5.77E-05 0.11%	5.41E-05 0.05%
BA140	1.94E-06 0.0 %	2.90E-05 0.06%	2.11E-05 0.04%	6.87E-07 0.0 %	6.72E-07 0.0 %	6.65E-07 0.0 %	2.06E-05 0.04%	7.60E-07 0.0 %
I 131	5.67E-07 0.0 %	1.99E-07 0.0 %	8.07E-07 0.0 %	9.83E-07 0.0 %	1.64E-06 0.0 %	3.10E-04 0.54%	2.55E-08 0.0 %	3.09E-08 0.0 %
CO 58	1.10E-07 0.0 %	2.94E-07 0.0 %	7.51E-08 0.0 %	8.92E-08 0.0 %	7.51E-08 0.0 %	7.51E-08 0.0 %	1.89E-07 0.0 %	8.80E-08 0.0 %
CO 60	4.27E-04 0.83%	4.96E-04 0.97%	4.13E-04 0.78%	4.19E-04 0.82%	4.13E-04 0.81%	4.13E-04 0.72%	4.84E-04 0.93%	4.86E-04 0.42%
MN 54	5.65E-06 0.01%	8.95E-06 0.02%	5.29E-06 0.01%	5.98E-06 0.01%	5.78E-06 0.01%	5.29E-06 0.0 %	8.48E-06 0.02%	6.20E-06 0.0 %
I 131	3.06E-08 0.0 %	1.08E-08 0.0 %	4.35E-08 0.0 %	5.29E-08 0.0 %	8.82E-08 0.0 %	1.67E-05 0.03%	1.40E-09 0.0 %	1.70E-09 0.0 %
TOTAL	5.15E-02	5.12E-02	5.27E-02	5.12E-02	5.11E-02	5.71E-02	5.20E-02	1.16E-01

COOPER NUCLEAR STATION : SECOND SEMI-ANNUAL PERIOD 1981 : COMBINED RELEASE
ALARA ANNUAL INTEGRATED POPULATION DOSE SUMMARY (MANREM)

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	6.14E-02 96.20%	6.14E-02 96.76%	6.14E-02 93.70%	6.14E-02 96.35%	6.14E-02 96.95%	6.14E-02 76.90%	6.24E-02 96.87%	1.40E-01 98.64%
GROUND	1.64E-03 2.57%	1.64E-03 2.59%	1.64E-03 2.50%	1.64E-03 2.58%	1.64E-03 2.59%	1.64E-03 2.06%	1.64E-03 2.55%	1.93E-03 1.36%
INHAL	1.60E-05 0.03%	1.88E-05 0.03%	1.08E-04 0.17%	1.82E-05 0.03%	1.37E-05 0.02%	1.27E-03 1.59%	3.03E-04 0.47%	0.0 0.0 %
VEGET	6.07E-04 0.95%	3.00E-04 0.47%	2.07E-03 3.16%	3.85E-04 0.60%	1.60E-04 0.25%	9.09E-03 11.38%	3.88E-05 0.06%	0.0 0.0 %
COW MILK	1.25E-04 0.20%	1.87E-05 0.03%	2.54E-04 0.39%	2.43E-04 0.38%	1.05E-04 0.17%	6.09E-03 7.63%	2.57E-05 0.04%	0.0 0.0 %
MEAT	3.93E-05 0.06%	7.84E-05 0.12%	5.52E-05 0.08%	4.23E-05 0.07%	1.40E-05 0.02%	3.60E-04 0.45%	4.13E-06 0.01%	0.0 0.0 %
TOTAL	6.39E-02	6.35E-02	6.56E-02	6.38E-02	6.34E-02	7.99E-02	6.44E-02	1.42E-01

COOPER NUCLEAR STATION : SECOND SEMI-ANNUAL PERIOD 1981 : COMBINED RELEASE
ALARA ANNUAL INTEGRATED POPULATION DOSE SUMMARY (MANREM)
PATHWAY = PLUME

NUCLIDE	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
KR 85	3.50E-06 0.0 %	3.50E-06 0.0 %	3.50E-06 0.0 %	3.50E-06 0.0 %	3.50E-06 0.0 %	3.50E-06 0.0 %	1.16E-05 0.02%	5.86E-04 0.42%
KR 85M	1.77E-03 2.87%	1.77E-03 2.87%	1.77E-03 2.87%	1.77E-03 2.87%	1.77E-03 2.87%	1.77E-03 2.87%	1.82E-03 2.92%	6.47E-03 4.62%
KR 87	4.89E-03 7.96%	4.89E-03 7.96%	4.89E-03 7.96%	4.89E-03 7.96%	4.89E-03 7.96%	4.89E-03 7.96%	5.06E-03 8.10%	2.17E-02 15.53%
KR 88	3.74E-02 60.87%	3.74E-02 60.87%	3.74E-02 60.87%	3.74E-02 60.87%	3.74E-02 60.87%	3.74E-02 60.87%	3.76E-02 60.18%	5.50E-02 39.31%
XE133	2.58E-03 4.20%	2.58E-03 4.20%	2.58E-03 4.20%	2.58E-03 4.20%	2.58E-03 4.20%	2.58E-03 4.20%	2.77E-03 4.43%	8.81E-03 6.30%
XE135	1.39E-02 22.62%	1.39E-02 22.62%	1.39E-02 22.62%	1.39E-02 22.62%	1.39E-02 22.62%	1.39E-02 22.62%	1.43E-02 22.86%	4.49E-02 32.12%
XE135M	6.33E-05 0.10%	6.33E-05 0.10%	6.33E-05 0.10%	6.33E-05 0.10%	6.33E-05 0.10%	6.33E-05 0.10%	6.37E-05 0.10%	1.05E-04 0.07%
XE138	7.77E-04 1.26%	7.77E-04 1.26%	7.77E-04 1.26%	7.77E-04 1.26%	7.77E-04 1.26%	7.77E-04 1.26%	7.85E-04 1.26%	1.63E-03 1.16%
KR 89	1.14E-07 0.0 %	1.14E-07 0.0 %	1.14E-07 0.0 %	1.14E-07 0.0 %	1.14E-07 0.0 %	1.14E-07 0.0 %	1.15E-07 0.0 %	2.70E-03 0.0 %
KR 83M	1.99E-08 0.0 %	1.99E-08 0.0 %	1.99E-08 0.0 %	1.99E-08 0.0 %	1.99E-08 0.0 %	1.99E-08 0.0 %	1.55E-06 0.0 %	5.64E-06 0.0 %
XE137	7.15E-08 0.0 %	7.15E-08 0.0 %	7.15E-08 0.0 %	7.15E-08 0.0 %	7.15E-08 0.0 %	7.15E-08 0.0 %	8.38E-08 0.0 %	1.31E-06 0.0 %
XE133M	6.45E-05 0.11%	6.45E-05 0.11%	6.45E-05 0.11%	6.45E-05 0.11%	6.45E-05 0.11%	6.45E-05 0.11%	7.20E-05 0.12%	6.04E-04 0.43%
XE131M	3.08E-06 0.0 %	3.08E-06 0.0 %	3.08E-06 0.0 %	3.08E-06 0.0 %	3.08E-06 0.0 %	3.08E-06 0.0 %	3.82E-06 0.0 %	3.79E-05 0.03%
TOTAL	6.14E-02	6.14E-02	6.14E-02	6.14E-02	6.14E-02	6.14E-02	6.24E-02	1.40E-01

COOPER NUCLEAR STATION : SECOND SEMI-ANNUAL PERIOD 1981 : COMBINED RELEASE
ALARA ANNUAL INTEGRATED POPULATION DOSE SUMMARY (MANREM)
PATHWAY = GROUND

NUCLIDE	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
I 131	1.34E-06 0.08%	1.34E-06 0.08%	1.34E-06 0.08%	1.34E-06 0.08%	1.34E-06 0.08%	1.34E-06 0.08%	1.34E-06 0.08%	1.63E-06 0.08%
I 133	7.57E-07 0.05%	7.57E-07 0.05%	7.57E-07 0.05%	7.57E-07 0.05%	7.57E-07 0.05%	7.57E-07 0.05%	7.57E-07 0.05%	9.20E-07 0.05%
SR 89	1.77E-10 0.0 %	1.77E-10 0.0 %	1.77E-10 0.0 %	1.77E-10 0.0 %	1.77E-10 0.0 %	1.77E-10 0.0 %	1.77E-10 0.0 %	2.06E-10 0.0 %
CS134	6.60E-05 4.02%	6.60E-05 4.02%	6.60E-05 4.02%	6.60E-05 4.02%	6.60E-05 4.02%	6.60E-05 4.02%	6.60E-05 4.02%	7.70E-05 3.99%
CS137	1.87E-04 11.36%	1.87E-04 11.36%	1.87E-04 11.36%	1.87E-04 11.36%	1.87E-04 11.36%	1.87E-04 11.36%	1.87E-04 11.36%	2.18E-04 11.28%
BA140	1.45E-06 0.09%	1.45E-06 0.09%	1.45E-06 0.09%	1.45E-06 0.09%	1.45E-06 0.09%	1.45E-06 0.09%	1.45E-06 0.09%	1.65E-06 0.09%
I 131	2.53E-08 0.0 %	2.53E-08 0.0 %	2.53E-08 0.0 %	2.53E-08 0.0 %	2.53E-08 0.0 %	2.53E-08 0.0 %	2.53E-08 0.0 %	3.07E-08 0.0 %
CO 58	3.26E-07 0.02%	3.26E-07 0.02%	3.26E-07 0.02%	3.26E-07 0.02%	3.26E-07 0.02%	3.26E-07 0.02%	3.26E-07 0.02%	3.82E-07 0.02%
CO 60	1.37E-03 83.35%	1.37E-03 83.35%	1.37E-03 83.35%	1.37E-03 83.35%	1.37E-03 83.35%	1.37E-03 83.35%	1.37E-03 83.35%	1.61E-03 83.46%
MN 54	1.70E-05 1.04%	1.70E-05 1.04%	1.70E-05 1.04%	1.70E-05 1.04%	1.70E-05 1.04%	1.70E-05 1.04%	1.70E-05 1.04%	2.00E-05 1.04%
I 131	4.23E-09 0.0 %	4.23E-09 0.0 %	4.23E-09 0.0 %	4.23E-09 0.0 %	4.23E-09 0.0 %	4.23E-09 0.0 %	4.23E-09 0.0 %	5.14E-09 0.0 %
I 131	2.55E-08 0.0 %	2.55E-08 0.0 %	2.55E-08 0.0 %	2.55E-08 0.0 %	2.55E-08 0.0 %	2.55E-08 0.0 %	2.55E-08 0.0 %	3.09E-08 0.0 %
I 131	1.40E-09 0.0 %	1.40E-09 0.0 %	1.40E-09 0.0 %	1.40E-09 0.0 %	1.40E-09 0.0 %	1.40E-09 0.0 %	1.40E-09 0.0 %	1.70E-09 0.0 %
TOTAL	1.64E-03	1.64E-03	1.64E-03	1.64E-03	1.64E-03	1.64E-03	1.64E-03	1.93E-03

COOPER NUCLEAR STATION : SECOND SEMI-ANNUAL PERIOD 1981 : COMBINED RELEASE
ALARA ANNUAL INTEGRATED POPULATION DOSE SUMMARY (MANREM)
PATHWAY = INHAL

NUCLIDE	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
I 131	1.25E-06 7.79%	3.18E-07 1.69%	1.70E-06 1.57%	2.20E-06 12.09%	3.74E-06 27.24%	7.26E-04 57.03%	0.0 0.0 %	0.0 0.0 %
I 133	1.02E-06 6.38%	1.63E-06 8.67%	2.03E-06 1.87%	3.18E-06 17.45%	5.50E-06 40.04%	4.92E-04 38.67%	0.0 0.0 %	0.0 0.0 %
SR 89	3.19E-08 0.20%	9.54E-07 5.07%	1.11E-06 1.02%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	4.92E-06 1.62%	0.0 0.0 %
SR 90	5.81E-06 36.27%	6.15E-07 3.27%	9.39E-05 86.56%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	1.05E-05 3.48%	0.0 0.0 %
CS134	3.39E-06 21.18%	5.03E-08 0.27%	2.40E-06 2.22%	4.99E-06 27.40%	1.67E-06 12.20%	0.0 0.0 %	5.89E-07 0.19%	0.0 0.0 %
CS137	3.68E-06 22.95%	7.69E-08 0.41%	5.87E-06 5.41%	6.95E-06 38.13%	2.47E-06 17.96%	0.0 0.0 %	8.69E-07 0.29%	0.0 0.0 %
BA140	8.52E-08 0.53%	5.66E-06 30.06%	1.34E-06 1.24%	1.53E-09 0.0 %	5.18E-10 0.0 %	0.0 0.0 %	4.10E-05 13.53%	0.0 0.0 %
I 131	4.48E-08 0.28%	1.14E-08 0.06%	6.11E-08 0.06%	7.91E-08 0.43%	1.34E-07 0.98%	2.61E-05 2.05%	0.0 0.0 %	0.0 0.0 %
CO 58	1.09E-09 0.0 %	4.27E-08 0.23%	0.0 0.0 %	7.75E-10 0.0 %	0.0 0.0 %	0.0 0.0 %	4.66E-07 0.15%	0.0 0.0 %
CO 60	6.38E-07 3.80%	9.03E-06 47.79%	0.0 0.0 %	4.43E-07 2.43%	0.0 0.0 %	0.0 0.0 %	2.35E-04 77.35%	0.0 0.0 %
MN 54	4.88E-08 0.30%	4.56E-07 2.42%	0.0 0.0 %	2.85E-07 1.56%	7.00E-08 0.51%	0.0 0.0 %	1.03E-05 3.39%	0.0 0.0 %
I 131	3.00E-09 0.02%	7.62E-10 0.0 %	4.08E-09 0.0 %	5.29E-09 0.03%	8.97E-09 0.07%	1.74E-06 0.14%	0.0 0.0 %	0.0 0.0 %
I 131	4.51E-08 0.28%	1.15E-08 0.06%	6.15E-08 0.06%	7.96E-08 0.44%	1.35E-07 0.98%	2.62E-05 2.06%	0.0 0.0 %	0.0 0.0 %
I 131	1.08E-09 0.0 %	2.73E-10 0.0 %	1.46E-09 0.0 %	1.90E-09 0.01%	3.22E-09 0.02%	6.25E-07 0.05%	0.0 0.0 %	0.0 0.0 %
TOTAL	1.60E-05	1.88E-05	1.08E-04	1.82E-05	1.37E-05	1.27E-03	3.03E-04	0.0

COOPER NUCLEAR STATION : SECOND SEMI-ANNUAL PERIOD 1981 : COMBINED RELEASE
ALARA ANNUAL INTEGRATED POPULATION DOSE SUMMARY (MANREM)
PATHWAY = VEGET

NUCLIDE	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
I 131	1.53E-05 2.51%	5.09E-06 1.70%	2.19E-05 1.06%	2.69E-05 7.00%	4.55E-05 28.43%	8.73E-03 96.05%	0.0 0.0 %	0.0 0.0 %
I 133	1.13E-10 0.0 %	2.35E-10 0.0 %	2.27E-10 0.0 %	3.40E-10 0.0 %	5.84E-10 0.0 %	5.48E-08 0.0 %	0.0 0.0 %	0.0 0.0 %
SR 89	5.78E-06 0.95%	1.98E-05 6.61%	2.02E-04 9.73%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
SR 90	3.90E-04 64.18%	3.72E-05 12.41%	1.57E-03 75.68%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
CS134	7.28E-05 11.98%	1.64E-06 0.55%	6.39E-05 3.08%	1.31E-04 34.08%	4.17E-05 26.06%	0.0 0.0 %	1.45E-05 37.32%	0.0 0.0 %
CS137	8.80E-05 14.49%	2.86E-06 0.95%	1.77E-04 8.53%	2.08E-04 54.04%	6.95E-05 43.46%	0.0 0.0 %	2.43E-05 62.62%	0.0 0.0 %
BA140	2.42E-06 0.40%	4.99E-05 16.65%	3.89E-05 1.88%	4.19E-08 0.01%	1.40E-08 0.0 %	0.0 0.0 %	2.49E-08 0.06%	0.0 0.0 %
I 131	2.72E-07 0.04%	9.07E-08 0.03%	3.90E-07 0.02%	4.80E-07 0.12%	8.10E-07 0.51%	1.56E-04 1.71%	0.0 0.0 %	0.0 0.0 %
CO 58	1.09E-07 0.02%	6.23E-07 0.21%	0.0 0.0 %	4.30E-08 0.01%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
CO 60	3.15E-05 5.19%	1.72E-04 57.34%	0.0 0.0 %	1.28E-05 3.32%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
MN 54	1.04E-06 0.17%	1.05E-05 3.51%	0.0 0.0 %	4.81E-06 1.25%	1.40E-06 0.88%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
I 131	4.79E-08 0.0 %	1.60E-08 0.0 %	6.87E-08 0.0 %	8.46E-08 0.02%	1.43E-07 0.09%	2.74E-05 0.30%	0.0 0.0 %	0.0 0.0 %
I 131	2.91E-07 0.05%	9.71E-08 0.03%	4.18E-07 0.02%	5.14E-07 0.13%	8.68E-07 0.54%	1.67E-04 1.83%	0.0 0.0 %	0.0 0.0 %
I 131	1.65E-08 0.0 %	5.49E-09 0.0 %	2.36E-08 0.0 %	2.91E-08 0.0 %	4.91E-08 0.03%	9.42E-06 0.10%	0.0 0.0 %	0.0 0.0 %
TOTAL	6.07E-04	3.00E-04	2.07E-03	3.85E-04	1.60E-04	9.09E-03	3.88E-05	0.0

COOPER NUCLEAR STATION : SECOND SEMI-ANNUAL PERIOD 1981 : COMBINED RELEASE
ALARA ANNUAL INTEGRATED POPULATION DOSE SUMMARY (MANREM)
PATHWAY = COW MILK

NUCLIDE	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
I 131	1.01E-05 8.14%	3.14E-06 16.74%	1.50E-05 5.89%	1.79E-05 7.39%	3.02E-05 28.79%	5.81E-03 95.30%	0.0 0.0 %	0.0 0.0 %
I 133	9.84E-08 0.08%	1.89E-07 1.01%	1.99E-07 0.08%	2.91E-07 0.12%	4.98E-07 0.47%	4.76E-05 0.78%	0.0 0.0 %	0.0 0.0 %
SR 89	2.54E-07 0.20%	7.88E-07 4.20%	8.88E-06 3.49%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
SR 90	1.64E-05 13.13%	1.49E-06 7.92%	6.58E-05 25.85%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
CS134	4.36E-05 35.00%	1.00E-06 5.34%	4.34E-05 17.06%	8.66E-05 35.66%	2.74E-05 26.15%	0.0 0.0 %	9.63E-06 37.46%	0.0 0.0 %
CS137	5.19E-05 41.63%	1.73E-06 9.24%	1.19E-04 46.90%	1.36E-04 56.20%	4.55E-05 43.38%	0.0 0.0 %	1.61E-05 62.54%	0.0 0.0 %
BA140	7.73E-08 0.06%	1.46E-06 7.77%	1.26E-06 0.49%	1.32E-09 0.0 %	4.39E-10 0.0 %	0.0 0.0 %	7.88E-10 0.0 %	0.0 0.0 %
I 131	1.81E-07 0.15%	5.60E-08 0.30%	2.67E-07 0.10%	3.20E-07 0.13%	5.38E-07 0.51%	1.04E-04 1.70%	0.0 0.0 %	0.0 0.0 %
CO 58	5.82E-09 0.0 %	3.00E-08 0.16%	0.0 0.0 %	2.25E-09 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
CO 60	1.76E-06 1.41%	8.67E-06 46.23%	0.0 0.0 %	7.00E-07 0.29%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
MN 54	1.43E-08 0.01%	1.29E-07 0.69%	0.0 0.0 %	6.45E-08 0.03%	1.87E-08 0.02%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
I 131	3.19E-08 0.03%	9.85E-09 0.05%	4.70E-08 0.02%	5.63E-08 0.02%	9.48E-08 0.09%	1.82E-05 0.30%	0.0 0.0 %	0.0 0.0 %
I 131	1.94E-07 0.16%	6.00E-08 0.32%	2.86E-07 0.11%	3.43E-07 0.14%	5.77E-07 0.55%	1.11E-04 1.82%	0.0 0.0 %	0.0 0.0 %
I 131	1.10E-08 0.0 %	3.39E-09 0.02%	1.62E-08 0.0 %	1.94E-08 0.0 %	3.26E-08 0.03%	6.27E-06 0.10%	0.0 0.0 %	0.0 0.0 %
TOTAL	1.25E-04	1.87E-05	2.54E-04	2.43E-04	1.05E-04	6.09E-03	2.57E-05	0.0

COOPER NUCLEAR STATION : SECOND SEMI-ANNUAL PERIOD 1981 : COMBINED RELEASE
ALARA ANNUAL INTEGRATED POPULATION DOSE SUMMARY (MANREM)
PATHWAY = MEAT

NUCLIDE	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
I 131	6.04E-07 1.54%	2.36E-07 0.30%	8.08E-07 1.46%	1.06E-06 2.51%	1.81E-06 12.93%	3.45E-04 96.05%	0.0 0.0 %	0.0 0.0 %
I 133	5.95E-14 0.0 %	1.45E-13 0.0 %	1.16E-13 0.0 %	1.85E-13 0.0 %	3.21E-13 0.0 %	2.86E-11 0.0 %	0.0 0.0 %	0.0 0.0 %
SR 89	6.73E-08 0.17%	2.91E-07 0.37%	2.35E-06 4.25%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
SR 90	6.40E-06 16.29%	6.81E-07 0.87%	2.59E-05 46.99%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
CS134	9.60E-06 24.43%	2.11E-07 0.27%	6.51E-06 11.79%	1.43E-05 33.74%	4.58E-06 32.76%	0.0 0.0 %	1.56E-06 37.82%	0.0 0.0 %
CS137	1.17E-05 29.67%	3.61E-07 0.46%	1.77E-05 32.04%	2.22E-05 52.51%	7.49E-06 53.56%	0.0 0.0 %	2.57E-06 62.15%	0.0 0.0 %
BA140	1.19E-07 0.30%	3.02E-06 3.85%	1.88E-06 3.40%	2.17E-09 0.0 %	7.31E-10 0.0 %	0.0 0.0 %	1.27E-09 0.03%	0.0 0.0 %
I 131	1.08E-08 0.03%	4.21E-09 0.0 %	1.44E-08 0.03%	1.89E-08 0.04%	3.22E-08 0.23%	6.16E-06 1.71%	0.0 0.0 %	0.0 0.0 %
CO 58	3.06E-08 0.08%	2.19E-07 0.28%	0.0 0.0 %	1.28E-08 0.03%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
CO 60	1.08E-05 27.40%	7.31E-05 93.25%	0.0 0.0 %	4.60E-06 10.86%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
MN 54	2.10E-08 0.05%	2.66E-07 0.34%	0.0 0.0 %	1.03E-07 0.24%	3.03E-08 0.22%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
I 131	1.90E-09 0.0 %	7.42E-10 0.0 %	2.54E-09 0.0 %	3.34E-09 0.0 %	5.67E-09 0.04%	1.08E-06 0.30%	0.0 0.0 %	0.0 0.0 %
I 131	1.15E-08 0.03%	4.51E-09 0.0 %	1.54E-08 0.03%	2.03E-08 0.05%	3.45E-08 0.25%	6.59E-06 1.83%	0.0 0.0 %	0.0 0.0 %
I 131	6.52E-10 0.0 %	2.55E-10 0.0 %	8.72E-10 0.0 %	1.15E-09 0.0 %	1.95E-09 0.01%	3.73E-07 0.10%	0.0 0.0 %	0.0 0.0 %
TOTAL	3.93E-05	7.84E-05	5.52E-05	4.23E-05	1.40E-05	3.60E-04	4.13E-06	0.0

COOPER NUCLEAR STATION : SECOND SEMI-ANNUAL PERIOD 1981 : COMBINED RELEASE
ALARA ANNUAL INTEGRATED POPULATION DOSE SUMMARY (MANREM)
PATHWAY = *TOTAL*

NUCLIDE	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
KR 85	3.50E-06 0.0 %	3.50E-06 0.0 %	3.50E-06 0.0 %	3.50E-06 0.0 %	3.50E-06 0.0 %	3.50E-06 0.0 %	1.16E-05 0.02%	5.86E-04 0.41%
KR 85M	1.77E-03 2.76%	1.77E-03 2.78%	1.77E-03 2.69%	1.77E-03 2.77%	1.77E-03 2.79%	1.77E-03 2.21%	1.82E-03 2.83%	6.47E-03 4.56%
KR 87	4.89E-03 7.65%	4.89E-03 7.70%	4.89E-03 7.46%	4.89E-03 7.67%	4.89E-03 7.71%	4.89E-03 6.12%	5.06E-03 7.85%	2.17E-02 15.32%
KR 88	3.74E-02 58.55%	3.74E-02 58.90%	3.74E-02 57.03%	3.74E-02 58.65%	3.74E-02 59.01%	3.74E-02 46.81%	3.76E-02 58.30%	5.50E-02 38.77%
XE133	2.58E-03 4.04%	2.58E-03 4.07%	2.58E-03 3.94%	2.58E-03 4.05%	2.58E-03 4.07%	2.58E-03 3.23%	2.77E-03 4.29%	8.81E-03 6.22%
XE135	1.39E-02 21.76%	1.39E-02 21.88%	1.39E-02 21.19%	1.39E-02 21.79%	1.39E-02 21.93%	1.39E-02 17.39%	1.43E-02 22.15%	4.49E-02 31.68%
XE135M	6.33E-05 0.10%	6.33E-05 0.10%	6.33E-05 0.10%	6.33E-05 0.10%	6.33E-05 0.10%	6.33E-05 0.08%	6.37E-05 0.10%	1.05E-04 0.07%
XE138	7.77E-04 1.22%	7.77E-04 1.22%	7.77E-04 1.18%	7.77E-04 1.22%	7.77E-04 1.23%	7.77E-04 0.97%	7.85E-04 1.22%	1.63E-03 1.15%
KR 89	1.14E-07 0.0 %	1.14E-07 0.0 %	1.14E-07 0.0 %	1.14E-07 0.0 %	1.14E-07 0.0 %	1.14E-07 0.0 %	1.15E-07 0.0 %	2.70E-07 0.0 %
KR 83M	1.99E-08 0.0 %	1.99E-08 0.0 %	1.99E-08 0.0 %	1.99E-08 0.0 %	1.99E-08 0.0 %	1.99E-08 0.0 %	1.55E-06 0.0 %	5.64E-06 0.0 %
XE137	7.15E-08 0.0 %	7.15E-08 0.0 %	7.15E-08 0.0 %	7.15E-08 0.0 %	7.15E-08 0.0 %	7.15E-08 0.0 %	8.38E-08 0.0 %	1.31E-06 0.0 %
XE133M	6.45E-05 0.10%	6.45E-05 0.10%	6.45E-05 0.10%	6.45E-05 0.10%	6.45E-05 0.10%	6.45E-05 0.08%	7.20E-05 0.11%	6.04E-04 0.43%
XE131M	3.08E-06 0.0 %	3.08E-06 0.0 %	3.08E-06 0.0 %	3.08E-06 0.0 %	3.08E-06 0.0 %	3.08E-06 0.0 %	3.82E-06 0.0 %	3.79E-05 0.03%
I 131	2.86E-05 0.04%	1.01E-05 0.02%	4.07E-05 0.06%	4.95E-05 0.08%	8.25E-05 0.13%	1.56E-02 19.54%	1.34E-06 0.0 %	1.63E-06 0.0 %
I 133	1.88E-06 0.0 %	2.58E-06 0.0 %	2.98E-06 0.0 %	4.23E-06 0.0 %	6.75E-06 0.01%	5.41E-04 0.68%	7.57E-07 0.0 %	9.20E-07 0.0 %
SR 89	6.13E-06 0.0 %	2.19E-05 0.03%	2.14E-04 0.33%	1.77E-10 0.0 %	1.77E-10 0.0 %	1.77E-10 0.0 %	4.92E-06 0.0 %	2.06E-10 0.0 %
SR 90	4.18E-04 0.65%	4.00E-05 0.06%	1.76E-03 2.68%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	1.05E-05 0.02%	0.0 0.0 %
CS134	1.95E-04 0.31%	6.89E-05 0.11%	1.82E-04 0.28%	3.03E-04 0.47%	1.41E-04 0.22%	6.60E-05 0.08%	9.23E-05 0.14%	7.70E-05 0.05%
CS137	3.42E-04 0.54%	1.92E-04 0.30%	5.06E-04 0.77%	5.60E-04 0.88%	3.11E-04 0.49%	1.87E-04 0.23%	2.30E-04 0.36%	2.18E-04 0.15%
BA140	4.14E-06 0.0 %	6.15E-05 0.10%	4.48E-05 0.07%	1.49E-06 0.0 %	1.46E-06 0.0 %	1.45E-06 0.0 %	4.25E-05 0.07%	1.65E-06 0.0 %
I 131	5.34E-07 0.0 %	1.87E-07 0.0 %	7.58E-07 0.0 %	9.23E-07 0.0 %	1.54E-06 0.0 %	2.91E-04 0.36%	2.53E-08 0.0 %	3.07E-08 0.0 %
CO 58	4.73E-07 0.0 %	1.24E-06 0.0 %	3.26E-07 0.0 %	3.85E-07 0.0 %	3.26E-07 0.0 %	3.26E-07 0.0 %	7.93E-07 0.0 %	3.82E-07 0.0 %
CO 60	1.41E-03 2.21%	1.63E-03 2.57%	1.37E-03 2.09%	1.39E-03 2.18%	1.37E-03 2.16%	1.37E-03 1.71%	1.60E-03 2.49%	1.63E-03 1.14%
MN 54	1.82E-05 0.03%	2.84E-05 0.04%	1.70E-05 0.03%	2.23E-05 0.03%	1.86E-05 0.03%	1.70E-05 0.02%	2.73E-05 0.04%	2.00E-05 0.01%
I 131	8.89E-08 0.0 %	3.16E-08 0.0 %	1.27E-07 0.0 %	1.54E-07 0.0 %	2.56E-07 0.0 %	4.85E-05 0.06%	4.23E-09 0.0 %	5.14E-09 0.0 %
I 131	5.67E-07 0.0 %	1.99E-07 0.0 %	8.07E-07 0.0 %	9.83E-07 0.0 %	1.64E-06 0.0 %	3.10E-04 0.39%	2.55E-08 0.0 %	3.09E-08 0.0 %
I 131	3.06E-08 0.0 %	1.08E-08 0.0 %	4.35E-08 0.0 %	5.29E-08 0.0 %	8.82E-08 0.0 %	1.67E-05 0.02%	1.40E-09 0.0 %	1.70E-09 0.0 %
TOTAL	6.39E-02	6.35E-02	6.56E-02	6.38E-02	6.34E-02	7.99E-02	6.44E-02	1.42E-01

COOPER NUCLEAR STATION : ANNUAL PERIOD 1981 : COMBINED RELEASE
ALARA ANNUAL INTEGRATED POPULATION DOSE SUMMARY (MANREM)

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	1.78E-01 97.07%	1.78E-01 97.25%	1.78E-01 95.77%	1.78E-01 97.02%	1.78E-01 97.44%	1.78E-01 77.66%	1.85E-01 97.43%	6.31E-01 99.26%
GROUND	4.01E-03 2.18%	4.01E-03 2.19%	4.01E-03 2.15%	4.01E-03 2.18%	4.01E-03 2.19%	4.01E-03 1.75%	4.01E-03 2.13%	4.71E-03 0.74%
INHAL	2.82E-05 0.02%	4.06E-05 0.02%	1.55E-04 0.08%	3.60E-05 0.02%	2.85E-05 0.02%	3.12E-03 1.36%	6.84E-04 0.36%	0.0 0.0 %
VEGET	1.01E-03 0.55%	7.31E-04 0.40%	3.14E-03 1.69%	8.23E-04 0.45%	3.68E-04 0.20%	2.55E-02 11.27%	7.74E-05 0.04%	0.0 0.0 %
COW MILK	2.57E-04 0.14%	5.48E-05 0.03%	4.78E-04 0.26%	5.14E-04 0.28%	2.44E-04 0.13%	1.73E-02 7.52%	5.12E-05 0.03%	0.0 0.0 %
MEAT	8.45E-05 0.05%	2.06E-04 0.11%	9.54E-05 0.05%	9.37E-05 0.05%	3.29E-05 0.02%	1.02E-03 0.45%	8.23E-06 0.00%	0.0 0.0 %
TOTAL	1.84E-01	1.83E-01	1.86E-01	1.84E-01	1.83E-01	2.29E-01	1.88E-01	6.36E-01

COOPER NUCLEAR STATION : ANNUAL PERIOD 1981 : COMBINED RELEASE
ALARA ANNUAL INTEGRATED POPULATION DOSE SUMMARY (MANREM)
PATHWAY = PLUME

NUCLIDE	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
KR 85	1.38E-05 0.0 %	1.38E-05 0.0 %	1.38E-05 0.0 %	1.38E-05 0.0 %	1.38E-05 0.0 %	1.38E-05 0.0 %	4.58E-05 0.03%	2.31E-03 0.37%
KR 85M	2.43E-03 1.37%	2.43E-03 1.37%	2.43E-03 1.37%	2.43E-03 1.37%	2.43E-03 1.37%	2.43E-03 1.37%	2.52E-03 1.37%	8.92E-03 1.41%
KR 87	1.09E-01 61.11%	1.09E-01 61.11%	1.09E-01 61.11%	1.09E-01 61.11%	1.09E-01 61.11%	1.09E-01 61.11%	1.13E-01 61.56%	4.84E-01 76.72%
KR 88	4.57E-02 25.63%	4.57E-02 25.63%	4.57E-02 25.63%	4.57E-02 25.63%	4.57E-02 25.63%	4.57E-02 25.63%	4.59E-02 25.08%	6.72E-02 10.65%
XE133	3.34E-03 1.87%	3.34E-03 1.87%	3.34E-03 1.87%	3.34E-03 1.87%	3.34E-03 1.87%	3.34E-03 1.87%	3.57E-03 1.95%	1.14E-02 1.81%
XE135	1.68E-02 9.40%	1.68E-02 9.40%	1.68E-02 9.40%	1.68E-02 9.40%	1.68E-02 9.40%	1.68E-02 9.40%	1.72E-02 9.40%	5.42E-02 8.59%
XE135M	7.58E-05 0.04%	7.58E-05 0.04%	7.58E-05 0.04%	7.58E-05 0.04%	7.58E-05 0.04%	7.58E-05 0.04%	7.62E-05 0.04%	1.25E-04 0.02%
XE138	9.31E-04 0.52%	9.31E-04 0.52%	9.31E-04 0.52%	9.31E-04 0.52%	9.31E-04 0.52%	9.31E-04 0.52%	9.42E-04 0.51%	1.95E-03 0.31%
KR 89	1.66E-07 0.0 %	1.66E-07 0.0 %	1.66E-07 0.0 %	1.66E-07 0.0 %	1.66E-07 0.0 %	1.66E-07 0.0 %	1.69E-07 0.0 %	3.95E-07 0.0 %
KR 83M	2.38E-08 0.0 %	2.38E-08 0.0 %	2.38E-08 0.0 %	2.38E-08 0.0 %	2.38E-08 0.0 %	2.38E-08 0.0 %	1.85E-06 0.0 %	6.73E-06 0.0 %
XE137	1.01E-07 0.0 %	1.01E-07 0.0 %	1.01E-07 0.0 %	1.01E-07 0.0 %	1.01E-07 0.0 %	1.01E-07 0.0 %	1.18E-07 0.0 %	1.85E-06 0.0 %
XE133M	7.88E-05 0.04%	7.88E-05 0.04%	7.88E-05 0.04%	7.88E-05 0.04%	7.88E-05 0.04%	7.88E-05 0.04%	8.80E-05 0.05%	7.38E-04 0.12%
XE131M	6.16E-06 0.0 %	6.16E-06 0.0 %	6.16E-06 0.0 %	6.16E-06 0.0 %	6.16E-06 0.0 %	6.16E-06 0.0 %	7.64E-06 0.0 %	7.58E-05 0.01%
TOTAL	1.78E-01	1.78E-01	1.78E-01	1.78E-01	1.78E-01	1.78E-01	1.85E-01	6.31E-01

COOPER NUCLEAR STATION : ANNUAL PERIOD 1981 : COMBINED RELEASE
ALARA ANNUAL INTEGRATED POPULATION DOSE SUMMARY (MANREM)
PATHWAY = GROUND

NUCLIDE	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
I 131	3.71E-06 0.09%	3.71E-06 0.09%	3.71E-06 0.09%	3.71E-06 0.09%	3.71E-06 0.09%	3.71E-06 0.09%	3.71E-06 0.09%	4.50E-06 0.10%
I 133	1.10E-06 0.03%	1.10E-06 0.03%	1.10E-06 0.03%	1.10E-06 0.03%	1.10E-06 0.03%	1.10E-06 0.03%	1.10E-06 0.03%	1.34E-06 0.03%
SR 89	3.11E-10 0.0 %	3.11E-10 0.0 %	3.11E-10 0.0 %	3.11E-10 0.0 %	3.11E-10 0.0 %	3.11E-10 0.0 %	3.11E-10 0.0 %	3.60E-10 0.0 %
CS134	1.38E-04 3.43%	1.38E-04 3.43%	1.38E-04 3.43%	1.38E-04 3.43%	1.38E-04 3.43%	1.38E-04 3.43%	1.38E-04 3.43%	1.60E-04 3.41%
CS137	3.47E-04 8.66%	3.47E-04 8.66%	3.47E-04 8.66%	3.47E-04 8.66%	3.47E-04 8.66%	3.47E-04 8.66%	3.47E-04 8.66%	4.05E-04 8.59%
BA140	2.96E-06 0.07%	2.96E-06 0.07%	2.96E-06 0.07%	2.96E-06 0.07%	2.96E-06 0.07%	2.96E-06 0.07%	2.96E-06 0.07%	3.38E-06 0.07%
I 131	4.29E-08 0.0 %	4.29E-08 0.0 %	4.29E-08 0.0 %	4.29E-08 0.0 %	4.29E-08 0.0 %	4.29E-08 0.0 %	4.29E-08 0.0 %	5.21E-08 0.0 %
CO 58	6.23E-06 0.16%	6.23E-06 0.16%	6.23E-06 0.16%	6.23E-06 0.16%	6.23E-06 0.16%	6.23E-06 0.16%	6.23E-06 0.16%	7.30E-06 0.16%
CO 60	3.41E-03 85.22%	3.41E-03 85.22%	3.41E-03 85.22%	3.41E-03 85.22%	3.41E-03 85.22%	3.41E-03 85.22%	3.41E-03 85.22%	4.02E-03 85.31%
MN 54	9.05E-05 2.26%	9.05E-05 2.26%	9.05E-05 2.26%	9.05E-05 2.26%	9.05E-05 2.26%	9.05E-05 2.26%	9.05E-05 2.26%	1.06E-04 2.25%
CR 51	1.97E-07 0.0 %	1.97E-07 0.0 %	1.97E-07 0.0 %	1.97E-07 0.0 %	1.97E-07 0.0 %	1.97E-07 0.0 %	1.97E-07 0.0 %	2.33E-07 0.0 %
I 131	2.25E-09 0.0 %	2.25E-09 0.0 %	2.25E-09 0.0 %	2.25E-09 0.0 %	2.25E-09 0.0 %	2.25E-09 0.0 %	2.25E-09 0.0 %	2.73E-09 0.0 %
ZN 65	3.07E-06 0.08%	3.07E-06 0.08%	3.07E-06 0.08%	3.07E-06 0.08%	3.07E-06 0.08%	3.07E-06 0.08%	3.07E-06 0.08%	3.53E-06 0.07%
I 131	9.56E-08 0.0 %	9.56E-08 0.0 %	9.56E-08 0.0 %	9.56E-08 0.0 %	9.56E-08 0.0 %	9.56E-08 0.0 %	9.56E-08 0.0 %	1.16E-07 0.0 %
I 133	6.08E-10 0.0 %	6.08E-10 0.0 %	6.08E-10 0.0 %	6.08E-10 0.0 %	6.08E-10 0.0 %	6.08E-10 0.0 %	6.08E-10 0.0 %	7.40E-10 0.0 %
I 131	2.53E-08 0.0 %	2.53E-08 0.0 %	2.53E-08 0.0 %	2.53E-08 0.0 %	2.53E-08 0.0 %	2.53E-08 0.0 %	2.53E-08 0.0 %	3.07E-08 0.0 %
I 131	4.23E-09 0.0 %	4.23E-09 0.0 %	4.23E-09 0.0 %	4.23E-09 0.0 %	4.23E-09 0.0 %	4.23E-09 0.0 %	4.23E-09 0.0 %	5.14E-09 0.0 %
I 131	2.55E-08 0.0 %	2.55E-08 0.0 %	2.55E-08 0.0 %	2.55E-08 0.0 %	2.55E-08 0.0 %	2.55E-08 0.0 %	2.55E-08 0.0 %	3.09E-08 0.0 %
I 131	1.40E-09 0.0 %	1.40E-09 0.0 %	1.40E-09 0.0 %	1.40E-09 0.0 %	1.40E-09 0.0 %	1.40E-09 0.0 %	1.40E-09 0.0 %	1.70E-09 0.0 %
TOTAL	4.01E-03	4.01E-03	4.01E-03	4.01E-03	4.01E-03	4.01E-03	4.01E-03	4.71E-03

COOPER NUCLEAR STATION : ANNUAL PERIOD 1981 : COMBINED RELEASE
ALARA ANNUAL INTEGRATED POPULATION DOSE SUMMARY (MANREM)
PATHWAY = INHAL

NUCLIDE	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
I 131	2.76E-06 13.33%	9.56E-07 2.36%	5.12E-06 3.30%	6.63E-06 18.45%	1.13E-05 39.54%	2.19E-03 70.02%	0.0 0.0 %	0.0 0.0 %
I 133	1.56E-06 5.55%	2.50E-06 6.15%	3.10E-06 2.00%	4.86E-06 13.53%	8.41E-06 29.53%	7.55E-04 24.12%	0.0 0.0 %	0.0 0.0 %
SR 89	5.68E-08 0.20%	1.70E-06 4.19%	1.98E-06 1.28%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	8.77E-06 1.28%	0.0 0.0 %
SR 90	7.87E-06 27.89%	8.32E-07 2.05%	1.27E-04 81.91%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	1.43E-05 2.09%	0.0 0.0 %
CS134	6.49E-06 23.01%	9.62E-08 0.24%	4.59E-06 2.96%	9.55E-06 26.55%	3.20E-06 11.24%	0.0 0.0 %	1.13E-06 0.16%	0.0 0.0 %
CS137	6.30E-06 22.34%	1.32E-07 0.32%	1.01E-05 6.48%	1.19E-05 33.11%	4.22E-06 14.84%	0.0 0.0 %	1.49E-06 0.22%	0.0 0.0 %
BA140	1.73E-07 0.61%	1.15E-05 28.33%	2.72E-06 1.76%	3.12E-09 0.0 %	1.05E-09 0.0 %	0.0 0.0 %	8.34E-05 12.19%	0.0 0.0 %
I 131	8.75E-08 0.31%	2.23E-08 0.05%	1.19E-07 0.08%	1.54E-07 0.43%	2.62E-07 0.92%	5.09E-05 1.63%	0.0 0.0 %	0.0 0.0 %
CO 58	1.71E-08 0.06%	6.72E-07 1.66%	0.0 0.0 %	1.22E-08 0.03%	0.0 0.0 %	0.0 0.0 %	7.33E-06 1.07%	0.0 0.0 %
CO 60	1.35E-06 4.78%	2.00E-05 49.20%	0.0 0.0 %	9.82E-07 2.73%	0.0 0.0 %	0.0 0.0 %	5.21E-04 76.07%	0.0 0.0 %
MN 54	2.16E-07 0.76%	2.01E-06 4.96%	0.0 0.0 %	1.26E-06 3.50%	3.09E-07 1.09%	0.0 0.0 %	4.54E-05 6.63%	0.0 0.0 %
CR 51	2.17E-09 0.0 %	5.51E-08 0.14%	0.0 0.0 %	0.0 0.0 %	4.58E-10 0.0 %	1.26E-09 0.0 %	2.98E-07 0.04%	0.0 0.0 %
I 131	2.38E-09 0.0 %	6.04E-10 0.0 %	3.24E-09 0.0 %	4.20E-09 0.01%	7.12E-09 0.02%	1.38E-06 0.04%	0.0 0.0 %	0.0 0.0 %
ZN 65	9.34E-08 0.33%	8.17E-08 0.20%	6.23E-08 0.04%	1.92E-07 0.54%	1.27E-07 0.44%	0.0 0.0 %	1.65E-06 0.24%	0.0 0.0 %
I 131	1.30E-07 0.46%	3.31E-08 0.08%	1.77E-07 0.11%	2.30E-07 0.64%	3.90E-07 1.37%	7.57E-05 2.43%	0.0 0.0 %	0.0 0.0 %
I 133	5.36E-10 0.0 %	8.55E-10 0.0 %	1.06E-09 0.0 %	1.67E-09 0.0 %	2.88E-09 0.01%	2.58E-07 0.0 %	0.0 0.0 %	0.0 0.0 %
I 131	4.48E-08 0.16%	1.14E-08 0.03%	6.11E-08 0.04%	7.91E-08 0.22%	1.34E-07 0.47%	2.61E-05 0.83%	0.0 0.0 %	0.0 0.0 %
I 131	3.00E-09 0.01%	7.62E-10 0.0 %	4.08E-09 0.0 %	5.29E-09 0.01%	8.97E-09 0.03%	1.74E-06 0.06%	0.0 0.0 %	0.0 0.0 %
I 131	4.51E-08 0.16%	1.15E-08 0.03%	6.15E-08 0.04%	7.96E-08 0.22%	1.35E-07 0.47%	2.62E-05 0.84%	0.0 0.0 %	0.0 0.0 %
I 131	1.08E-09 0.0 %	2.73E-10 0.0 %	1.46E-09 0.0 %	1.90E-09 0.0 %	3.22E-09 0.01%	6.25E-07 0.02%	0.0 0.0 %	0.0 0.0 %
TOTAL	2.82E-05	4.06E-05	1.55E-04	3.60E-05	2.85E-05	3.12E-03	6.84E-04	0.0

COOPER NUCLEAR STATION : ANNUAL PERIOD 1981 : COMBINED RELEASE
ALARA ANNUAL INTEGRATED POPULATION DOSE SUMMARY (MANREM)
PATHWAY = VEGET

NUCLIDE	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
I 131	4.29E-05 4.25%	1.45E-05 1.96%	6.16E-05 1.96%	7.58E-05 9.21%	1.28E-04 34.72%	2.46E-02 95.01%	0.0 0.0 %	0.0 0.0 %
I 133	1.69E-10 0.0 %	3.49E-10 0.0 %	3.37E-10 0.0 %	5.06E-10 0.0 %	8.69E-10 0.0 %	8.14E-08 0.0 %	0.0 0.0 %	0.0 0.0 %
SR 89	1.05E-05 1.04%	3.60E-05 4.92%	3.67E-04 11.67%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
SR 90	5.34E-04 52.86%	5.10E-05 6.97%	2.15E-03 68.49%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
CS134	1.56E-04 15.40%	3.51E-06 0.46%	1.37E-04 4.35%	2.80E-04 34.06%	8.91E-05 24.19%	0.0 0.0 %	3.10E-05 40.07%	0.0 0.0 %
CS137	1.68E-04 16.58%	5.44E-06 0.74%	3.37E-04 10.73%	3.76E-04 48.07%	1.32E-04 35.90%	0.0 0.0 %	4.63E-05 59.85%	0.0 0.0 %
BA140	5.09E-06 0.50%	1.05E-04 14.38%	8.20E-05 2.61%	8.83E-08 0.01%	2.95E-08 0.0 %	0.0 0.0 %	5.25E-08 0.07%	0.0 0.0 %
I 131	5.02E-07 0.05%	1.67E-07 0.02%	7.21E-07 0.02%	8.87E-07 0.11%	1.50E-06 0.41%	2.87E-04 1.11%	0.0 0.0 %	0.0 0.0 %
CO 58	2.16E-06 0.21%	1.24E-05 1.70%	0.0 0.0 %	8.55E-07 0.10%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
CO 60	8.08E-05 8.00%	4.41E-04 60.27%	0.0 0.0 %	3.28E-05 3.98%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
MN 54	5.74E-06 0.57%	5.78E-05 7.91%	0.0 0.0 %	2.64E-05 3.21%	7.72E-06 2.10%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
CR 51	5.86E-09 0.0 %	9.32E-07 0.13%	0.0 0.0 %	0.0 0.0 %	1.12E-09 0.0 %	3.37E-09 0.0 %	7.38E-09 0.0 %	0.0 0.0 %
I 131	2.84E-08 0.0 %	9.48E-09 0.0 %	4.08E-08 0.0 %	5.02E-08 0.0 %	8.47E-08 0.02%	1.63E-05 0.06%	0.0 0.0 %	0.0 0.0 %
ZN 65	3.65E-06 0.36%	3.21E-06 0.44%	2.37E-06 0.08%	7.14E-06 0.87%	4.66E-06 1.26%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
I 131	1.09E-06 0.11%	3.65E-07 0.05%	1.57E-06 0.05%	1.93E-06 0.23%	3.26E-06 0.88%	6.28E-04 2.42%	0.0 0.0 %	0.0 0.0 %
I 133	9.39E-14 0.0 %	1.95E-13 0.0 %	1.88E-13 0.0 %	2.82E-13 0.0 %	4.84E-13 0.0 %	4.54E-11 0.0 %	0.0 0.0 %	0.0 0.0 %
I 131	2.72E-07 0.03%	9.07E-08 0.01%	3.90E-07 0.01%	4.80E-07 0.06%	8.10E-07 0.22%	1.56E-04 0.60%	0.0 0.0 %	0.0 0.0 %
I 131	4.79E-08 0.0 %	1.60E-08 0.0 %	6.87E-08 0.0 %	8.46E-08 0.01%	1.43E-07 0.04%	2.74E-05 0.11%	0.0 0.0 %	0.0 0.0 %
I 131	2.91E-07 0.03%	9.71E-08 0.01%	4.18E-07 0.01%	5.14E-07 0.06%	8.68E-07 0.24%	1.67E-04 0.64%	0.0 0.0 %	0.0 0.0 %
I 131	1.65E-08 0.0 %	5.49E-09 0.0 %	2.36E-08 0.0 %	2.91E-08 0.0 %	4.91E-08 0.01%	9.42E-06 0.04%	0.0 0.0 %	0.0 0.0 %
TOTAL	1.01E-03	7.31E-04	3.14E-03	8.23E-04	3.68E-04	2.59E-02	7.74E-05	0.0

COOPER NUCLEAR STATION : ANNUAL PERIOD 1981 : COMBINED RELEASE
ALARA ANNUAL INTEGRATED POPULATION DOSE SUMMARY (MANREM)
PATHWAY = COW MILK

NUCLIDE	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
I 131	2.86E-05 11.10%	8.83E-06 17.39%	4.21E-05 8.81%	5.05E-05 9.82%	8.50E-05 34.78%	1.63E-02 94.63%	0.0 0.0 %	0.0 0.0 %
I 133	1.46E-07 0.06%	2.82E-07 0.55%	2.96E-07 0.06%	4.33E-07 0.08%	7.40E-07 0.30%	7.07E-05 0.41%	0.0 0.0 %	0.0 0.0 %
SR 89	4.52E-07 0.18%	1.43E-06 2.82%	1.61E-05 3.37%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
SR 90	2.24E-05 8.72%	2.04E-06 4.01%	9.02E-05 18.86%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
CS134	9.33E-05 36.29%	2.14E-06 4.21%	9.28E-05 19.41%	1.85E-04 36.01%	5.87E-05 24.01%	0.0 0.0 %	2.06E-05 40.23%	0.0 0.0 %
CS137	9.88E-05 38.42%	3.30E-06 6.49%	2.27E-04 47.52%	2.60E-04 50.51%	8.66E-05 35.45%	0.0 0.0 %	3.06E-05 59.77%	0.0 0.0 %
BA140	1.63E-07 0.06%	3.07E-06 6.05%	2.65E-06 0.55%	2.78E-09 0.0 %	9.25E-10 0.0 %	0.0 0.0 %	1.66E-09 0.0 %	0.0 0.0 %
I 131	3.34E-07 0.13%	1.03E-07 0.20%	4.93E-07 0.10%	5.91E-07 0.11%	9.94E-07 0.41%	1.91E-04 1.11%	0.0 0.0 %	0.0 0.0 %
CO 58	1.16E-07 0.05%	5.97E-07 1.17%	0.0 0.0 %	4.48E-08 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
CO 60	4.52E-06 1.76%	2.22E-05 43.76%	0.0 0.0 %	1.79E-06 0.35%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
MN 54	7.89E-08 0.03%	7.12E-07 1.40%	0.0 0.0 %	3.55E-07 0.07%	1.03E-07 0.04%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
CR 51	7.51E-10 0.0 %	1.07E-07 0.21%	0.0 0.0 %	0.0 0.0 %	1.40E-10 0.0 %	4.29E-10 0.0 %	8.93E-10 0.0 %	0.0 0.0 %
I 131	1.89E-08 0.0 %	5.85E-09 0.01%	2.79E-08 0.0 %	3.34E-08 0.0 %	5.63E-08 0.02%	1.08E-05 0.06%	0.0 0.0 %	0.0 0.0 %
ZN 65	7.09E-06 2.76%	5.60E-06 11.03%	4.54E-06 0.95%	1.36E-05 2.69%	8.79E-06 3.60%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
I 131	7.27E-07 0.28%	2.25E-07 0.44%	1.07E-06 0.22%	1.29E-06 0.25%	2.17E-06 0.89%	4.16E-04 2.41%	0.0 0.0 %	0.0 0.0 %
I 133	8.15E-11 0.0 %	1.57E-10 0.0 %	1.65E-10 0.0 %	2.41E-10 0.0 %	4.12E-10 0.0 %	3.94E-08 0.0 %	0.0 0.0 %	0.0 0.0 %
I 131	1.81E-07 0.07%	5.60E-08 0.11%	2.67E-07 0.06%	3.20E-07 0.06%	5.38E-07 0.22%	1.04E-04 0.60%	0.0 0.0 %	0.0 0.0 %
I 131	3.19E-08 0.01%	9.85E-09 0.02%	4.70E-08 0.0 %	5.63E-08 0.01%	9.48E-08 0.04%	1.82E-05 0.11%	0.0 0.0 %	0.0 0.0 %
I 131	1.94E-07 0.08%	6.00E-08 0.12%	2.86E-07 0.06%	3.43E-07 0.07%	5.77E-07 0.24%	1.11E-04 0.64%	0.0 0.0 %	0.0 0.0 %
I 131	1.10E-08 0.0 %	3.39E-09 0.0 %	1.62E-08 0.0 %	1.94E-08 0.0 %	3.26E-08 0.01%	6.27E-06 0.04%	0.0 0.0 %	0.0 0.0 %
TOTAL	2.57E-04	5.08E-05	4.78E-04	5.14E-04	2.44E-04	1.73E-02	5.12E-05	0.0

COOPER NUCLEAR STATION : ANNUAL PERIOD 1981 : COMBINED RELEASE
ALARA ANNUAL INTEGRATED POPULATION DOSE SUMMARY (MANREM)
PATHWAY = MEAT

NUCLIDE	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
I 131	3.70E-06 2.01%	6.65E-07 0.32%	2.[illegible]7E-06 2.38%	2.99E-06 3.19%	5.08E-06 15.43%	9.72E-04 95.02%	0.0 0.0 %	0.0 0.0 %
I 133	8.82E-14 0.0 %	2.16E-13 0.0 %	1.72E-13 0.0 %	2.76E-13 0.0 %	4.77E-13 0.0 %	4.25E-11 0.0 %	0.0 0.0 %	0.0 0.0 %
SR 89	1.22E-07 0.14%	5.28E-07 0.26%	9.27E-06 4.47%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
SR 90	8.78E-06 10.39%	9.33E-07 0.45%	3.56E-05 37.26%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
CS134	2.05E-05 24.31%	4.52E-07 0.22%	1.39E-05 14.59%	3.05E-05 32.58%	9.79E-06 29.72%	0.0 0.0 %	3.34E-06 40.59%	0.0 0.0 %
CS137	2.22E-05 26.28%	6.83E-07 0.33%	3.37E-05 35.29%	4.23E-05 45.13%	1.42E-05 43.26%	0.0 0.0 %	4.89E-06 59.37%	0.0 0.0 %
BA140	2.52E-07 0.30%	6.36E-06 3.09%	3.96E-06 4.15%	4.57E-09 0.0 %	1.54E-09 0.0 %	0.0 0.0 %	2.68E-09 0.03%	0.0 0.0 %
I 131	1.99E-08 0.02%	7.78E-09 0.0 %	2.66E-08 0.03%	3.50E-08 0.04%	5.95E-08 0.18%	1.14E-05 1.11%	0.0 0.0 %	0.0 0.0 %
CO 58	6.09E-07 0.72%	4.36E-06 2.12%	0.0 0.0 %	2.55E-07 0.27%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
CO 60	2.76E-05 32.69%	1.87E-04 91.12%	0.0 0.0 %	1.18E-05 12.58%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
MN 54	1.15E-07 0.14%	1.46E-06 0.71%	0.0 0.0 %	5.65E-07 0.60%	1.66E-07 0.51%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
CR 51	2.58E-10 0.0 %	5.15E-08 0.03%	0.0 0.0 %	0.0 0.0 %	5.29E-11 0.0 %	1.51E-10 0.0 %	3.27E-10 0.0 %	0.0 0.0 %
I 131	1.13E-09 0.0 %	4.40E-10 0.0 %	1.50E-09 0.0 %	1.98E-09 0.0 %	3.36E-09 0.01%	6.43E-07 0.06%	0.0 0.0 %	0.0 0.0 %
ZN 65	2.47E-06 2.92%	2.73E-06 1.33%	1.65E-06 1.73%	5.12E-06 5.45%	3.38E-06 10.26%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
I 131	4.33E-08 0.05%	1.69E-08 0.0 %	5.79E-08 0.06%	7.62E-08 0.08%	1.38E-07 0.39%	2.48E-05 2.42%	0.0 0.0 %	0.0 0.0 %
I 133	4.91E-17 0.0 %	1.20E-16 0.0 %	9.58E-17 0.0 %	1.54E-16 0.0 %	2.66E-16 0.0 %	2.37E-14 0.0 %	0.0 0.0 %	0.0 0.0 %
I 131	1.08E-08 0.01%	4.21E-09 0.0 %	1.44E-08 0.02%	1.89E-08 0.02%	3.22E-08 0.10%	6.16E-06 0.60%	0.0 0.0 %	0.0 0.0 %
I 131	1.90E-09 0.0 %	7.42E-10 0.0 %	2.54E-09 0.0 %	3.34E-09 0.0 %	5.67E-09 0.02%	1.08E-06 0.11%	0.0 0.0 %	0.0 0.0 %
I 131	1.15E-08 0.01%	4.51E-09 0.0 %	1.54E-08 0.02%	2.03E-08 0.02%	3.45E-08 0.10%	6.59E-06 0.64%	0.0 0.0 %	0.0 0.0 %
I 131	6.52E-10 0.0 %	2.55E-10 0.0 %	8.72E-10 0.0 %	1.15E-09 0.0 %	1.95E-09 0.0 %	3.73E-07 0.04%	0.0 0.0 %	0.0 0.0 %
TOTAL	8.45E-05	2.06E-04	9.54E-05	9.37E-05	3.29E-05	1.02E-03	8.23E-06	0.0

COOPER NUCLEAR STATION : ANNUAL PERIOD 1981 : COMBINED RELEASE
ALARA ANNUAL INTEGRATED POPULATION DOSE SUMMARY (MANREM)
PATHWAY = *TOTAL*

NUCLIDE	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
KR 85	1.38E-05 0.0 %	1.38E-05 0.0 %	1.38E-05 0.0 %	1.38E-05 0.0 %	1.38E-05 0.0 %	1.38E-05 0.0 %	4.58E-05 0.02%	2.31E-05 [illegible]
KR 85M	2.43E-03 1.33%	2.43E-03 1.33%	2.43E-03 1.33%	2.43E-03 1.33%	2.43E-03 1.33%	2.43E-03 1.06%	2.52E-03 1.34%	8.92E-03 1.40%
KR 87	1.09E-01 59.32%	1.09E-01 59.43%	1.09E-01 58.52%	1.09E-01 59.29%	1.09E-01 59.54%	1.09E-01 47.46%	1.13E-01 59.98%	4.84E-01 76.15%
KR 88	4.57E-02 24.88%	4.57E-02 24.93%	4.57E-02 24.55%	4.57E-02 24.87%	4.57E-02 24.98%	4.57E-02 19.91%	4.59E-02 24.43%	6.72E-02 10.57%
XE133	3.34E-03 1.82%	3.34E-03 1.82%	3.34E-[illegible] 1.79%	3.34E-03 1.82%	3.34E-03 1.82%	3.34E-03 1.45%	3.57E-03 1.90%	1.14E-02 1.7[illegible]
XE135	1.68E-02 9.12%	1.68E-02 9.14%	1.68E-02 9.00%	1.68E-02 9.12%	1.68E-02 9.16%	1.68E-02 7.30%	1.72E-02 9.16%	5.42E-02 8.52%
XE135M	7.58E-05 0.04%	7.58E-05 0.04%	7.58E-05 0.04%	7.58E-05 0.04%	7.58E-05 0.04%	7.58E-05 0.03%	7.62E-05 0.04%	1.25E-04 0.02%
XE138	9.31E-04 0.51%	9.31E-04 0.51%	9.31E-04 0.50%	9.31E-04 0.51%	9.31E-04 0.51%	9.31E-04 0.41%	9.42E-04 0.50%	1.99E-03 0.31%
KR 89	1.66E-07 0.0 %	1.66E-07 0.0 %	1.66E-07 0.0 %	1.66E-07 0.0 %	1.66E-07 0.0 %	1.66E-07 0.0 %	1.69E-07 0.0 %	3.95E-07 0.0 %
KR 89M	2.38E-08 0.0 %	2.38E-08 0.0 %	2.38E-08 0.0 %	2.38E-08 0.0 %	2.38E-08 0.0 %	2.38E-08 0.0 %	1.85E-06 0.0 %	[illegible] 0.0 %
XE137	1.01E-07 0.0 %	1.01E-07 0.0 %	1.01E-07 0.0 %	1.01E-07 0.0 %	1.01E-07 0.0 %	1.01E-07 0.0 %	1.18E-07 0.0 %	1.85E-06 0.0 %
XE138M	7.88E-05 0.04%	7.88E-05 0.04%	7.88E-05 0.04%	7.88E-05 0.04%	7.88E-05 0.04%	7.88E-05 0.03%	8.88E-05 0.05%	7.38E-04 0.17%
XE139M	6.16E-06 0.0 %	6.16E-06 0.0 %	6.16E-06 0.0 %	6.16E-06 0.0 %	6.16E-06 0.0 %	6.16E-06 0.0 %	7.64E-06 0.0 %	7.58E-05 0.01%
I 131	4.07E-05 0.04%	2.85E-05 0.02%	1.15E-04 0.06%	1.49E-04 0.08%	2.33E-04 0.13%	4.41E-02 19.20%	3.71E-06 0.0 %	4.50E-06 0.0 %
I 133	2.41E-06 0.0 %	5.88E-06 0.0 %	9.49E-06 0.0 %	8.90E-06 0.0 %	1.02E-05 0.0 %	8.25E-04 0.36%	1.10E-06 0.0 %	1.34E-06 0.0 %
SR 89	1.11E-05 0.0 %	3.97E-05 0.02%	5.89E-04 0.21%	3.11E-10 0.0 %	3.31E-10 0.0 %	3.11E-10 0.0 %	8.77E-06 0.0 %	3.60E-10 0.0 %
SR 90	5.73E-04 0.31%	5.48E-05 0.03%	2.40E-03 1.27%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	1.43E-05 0.0 %	0.0 0.0 %
CS134	4.14E-04 0.23%	4.44E-04 0.08%	3.86E-04 0.21%	6.43E-04 0.[illegible]%	2.38E-04 0.14%	1.38E-04 0.08%	1.44E-04 0.10%	1.60E-04 0.0[illegible]%
BA140	8.64E-06 0.0 %	1.29E-04 0.07%	9.45E-05 0.05%	5.06E-06 0.0 %	2.99E-06 0.0 %	2.91E-06 0.0 %	8.64E-05 0.05%	3.38E-06 0.0 %
I 131	9.87E-07 0.0 %	3.44E-07 0.0 %	1.10E-06 0.0 %	1.71E-06 0.0 %	2.86E-06 0.0 %	5.41E-04 0.24%	4.29E-08 0.0 %	5.21E-08 0.0 %
CO 58	9.14E-06 0.0 %	2.43E-05 0.01%	6.23E-06 0.0 %	7.40E-06 0.0 %	6.23E-06 0.0 %	6.23E-06 0.0 %	1.34E-05 0.0 %	7.30E-06 0.0 %
CO 60	3.53E-03 1.92%	4.08E-03 2.23%	3.61E-03 1.83%	3.46E-03 1.80%	3.41E-03 1.87%	3.41E-03 1.49%	3.93E-03 2.09%	4.02E-03 0.63%
MN 54	9.66E-05 0.05%	1.52E-04 0.08%	9.05E-05 0.05%	1.19E-04 0.06%	9.88E-05 0.05%	9.05E-05 0.04%	1.36E-04 0.07%	1.08E-04 0.02%
CR 51	2.06E-07 0.0 %	1.34E-06 0.0 %	1.97E-07 0.0 %	1.97E-07 0.0 %	1.99E-07 0.0 %	2.02E-07 0.0 %	5.03E-07 0.0 %	2.33E-07 0.0 %
I 131	5.31E-08 0.0 %	1.86E-08 0.0 %	7.57E-08 0.0 %	9.21E-08 0.0 %	1.54E-07 0.0 %	2.91E-05 0.01%	2.25E-09 0.0 %	2.73E-09 0.0 %
ZN 65	1.64E-05 0.0 %	1.47E-05 0.0 %	1.17E-05 0.0 %	2.91E-05 0.02%	2.00E-05 0.01%	3.07E-06 0.0 %	4.72E-06 0.0 %	3.53E-06 0.0 %
I 131	2.09E-06 0.0 %	7.35E-07 0.0 %	2.97E-06 0.0 %	3.62E-06 0.0 %	6.04E-06 0.0 %	1.14E-03 0.50%	9.56E-08 0.0 %	1.16E-07 0.0 %
I 133	1.23E-09 0.0 %	1.62E-09 0.0 %	1.83E-09 0.0 %	2.52E-09 0.0 %	3.40E-09 0.0 %	2.94E-07 0.0 %	6.08E-10 0.0 %	7.40E-10 0.0 %
I 131	5.34E-07 0.0 %	1.87E-07 0.0 %	7.58E-07 0.0 %	9.23E-07 0.0 %	1.54E-06 0.0 %	2.91E-04 0.13%	2.53E-08 0.0 %	3.07E-08 0.0 %
I 131	8.49E-08 0.0 %	3.16E-08 0.0 %	1.27E-07 0.0 %	1.54E-07 0.0 %	2.56E-07 0.0 %	4.85E-05 0.02%	4.23E-09 0.0 %	5.14E-09 0.0 %
I 131	5.67E-07 0.0 %	1.99E-07 0.0 %	8.07E-07 0.0 %	9.83E-07 0.0 %	1.64E-06 0.0 %	3.10E-04 0.14%	2.5[illegible]E-08 0.0 %	3.09E-08 0.0 %
I 131	3.06E-08 0.0 %	1.08E-08 0.0 %	4.35E-08 0.0 %	5.29E-08 0.0 %	8.82E-08 0.0 %	1.67E-05 0.0 %	1.40E-09 0.0 %	1.70E-09 0.0 %
TOTAL	1.84E-01	1.83E-01	1.86E-01	1.84E-01	1.83E-01	2.29E-01	1.48E-01	5.36E-01

COOPER NUCLEAR STATION : THIRD QUARTERLY PERIOD 1981 : COMBINED RELEASE
NEPA ANNUAL INTEGRATED POPULATION DOSE SUMMARY (MANREM)

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	4.41E-02 93.53%	4.41E-02 94.54%	4.41E-02 89.80%	4.41E-02 91.33%	4.41E-02 94.87%	4.41E-02 41.23%	4.60E-02 96.50%	1.53E-01 99.12%
GROUND	1.16E-03 2.45%	1.16E-03 2.48%	1.16E-03 2.35%	1.16E-03 2.39%	1.16E-03 2.49%	1.16E-03 1.08%	1.16E-03 2.43%	1.36E-03 0.88%
INHAL	8.35E-06 0.02%	1.13E-05 0.02%	2.88E-05 0.06%	1.27E-05 0.03%	9.06E-06 0.02%	8.18E-04 0.76%	1.98E-04 0.41%	0.0 0.0 %
VEGET	7.55E-04 1.60%	5.57E-04 1.19%	2.01E-03 4.10%	8.75E-04 1.81%	3.56E-04 0.77%	1.86E-02 17.40%	8.94E-05 0.19%	0.0 0.0 %
COW MILK	8.05E-04 1.71%	1.17E-04 0.25%	1.47E-03 3.00%	1.74E-03 3.60%	7.33E-04 1.58%	3.92E-02 36.64%	1.86E-04 0.39%	0.0 0.0 %
MEAT	3.28E-04 0.70%	7.08E-04 1.52%	3.43E-04 0.70%	4.04E-04 0.84%	1.33E-04 0.29%	3.08E-03 2.88%	3.98E-05 0.08%	0.0 0.0 %
TOTAL	4.72E-02	4.67E-02	4.91E-02	4.83E-02	4.65E-02	1.07E-01	4.77E-02	1.54E-01

COOPER NUCLEAR STATION : THIRD QUARTERLY PERIOD 1981 : COMBINED RELEASE
NEPA ANNUAL INTEGRATED POPULATION DOSE SUMMARY (MANREM)
PATHWAY = PLUME

NUCLIDE	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
KR 85	2.31E-04 0.52%	2.31E-04 0.52%	2.31E-04 0.52%	2.31E-04 0.52%	2.31E-04 0.52%	2.31E-04 0.52%	7.67E-04 1.67%	3.87E-02 25.30%
KR 85M	1.60E-03 3.62%	1.60E-03 3.62%	1.60E-03 3.62%	1.60E-03 3.62%	1.60E-03 3.62%	1.60E-03 3.62%	1.65E-03 3.59%	5.85E-03 3.82%
KR 87	2.00E-03 4.53%	2.00E-03 4.53%	2.00E-03 4.53%	2.00E-03 4.53%	2.00E-03 4.53%	2.00E-03 4.53%	2.07E-03 4.49%	8.88E-03 5.80%
KR 88	1.91E-02 43.27%	1.91E-02 43.27%	1.91E-02 43.27%	1.91E-02 43.27%	1.91E-02 43.27%	1.91E-02 43.27%	1.92E-02 41.71%	2.81E-02 18.34%
XE133	1.17E-02 26.41%	1.17E-02 26.41%	1.17E-02 26.41%	1.17E-02 26.41%	1.17E-02 26.41%	1.17E-02 26.41%	1.25E-02 27.15%	3.98E-02 26.00%
XE135	8.95E-03 20.29%	8.95E-03 20.29%	8.95E-03 20.29%	8.95E-03 20.29%	8.95E-03 20.29%	8.95E-03 20.29%	9.20E-03 20.00%	2.89E-02 18.91%
XE135M	3.02E-05 0.07%	3.02E-05 0.07%	3.02E-05 0.07%	3.02E-05 0.07%	3.02E-05 0.07%	3.02E-05 0.07%	3.04E-05 0.07%	4.99E-05 0.03%
XE138	3.85E-04 0.87%	3.85E-04 0.87%	3.85E-04 0.87%	3.85E-04 0.87%	3.85E-04 0.87%	3.85E-04 0.87%	3.89E-04 0.85%	8.05E-04 0.53%
KR 89	1.51E-07 0.0 %	1.51E-07 0.0 %	1.51E-07 0.0 %	1.51E-07 0.0 %	1.51E-07 0.0 %	1.51E-07 0.0 %	1.53E-07 0.0 %	3.58E-07 0.0 %
KR 83M	8.51E-09 0.0 %	8.51E-09 0.0 %	8.51E-09 0.0 %	8.51E-09 0.0 %	8.51E-09 0.0 %	8.51E-09 0.0 %	6.54E-07 0.0 %	2.41E-06 0.0 %
XE137	8.26E-08 0.0 %	8.26E-08 0.0 %	8.26E-08 0.0 %	8.26E-08 0.0 %	8.26E-08 0.0 %	8.26E-08 0.0 %	9.69E-08 0.0 %	1.52E-06 0.0 %
XE133M	1.24E-04 0.28%	1.24E-04 0.28%	1.24E-04 0.28%	1.24E-04 0.28%	1.24E-04 0.28%	1.24E-04 0.28%	1.39E-04 0.30%	1.16E-03 0.76%
XE131M	6.23E-05 0.14%	6.23E-05 0.14%	6.23E-05 0.14%	6.23E-05 0.14%	6.23E-05 0.14%	6.23E-05 0.14%	7.72E-05 0.17%	7.66E-04 0.50%
TOTAL	4.41E-02	4.41E-02	4.41E-02	4.41E-02	4.41E-02	4.41E-02	4.60E-02	1.53E-01

COOPER NUCLEAR STATION : THIRD QUARTERLY PERIOD 1981 : COMBINED RELEASE
NEPA ANNUAL INTEGRATED POPULATION DOSE SUMMARY (MANREM)
PATHWAY = GROUND

NUCLIDE	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
I 131	8.81E-07 0.08%	8.81E-07 0.08%	8.81E-07 0.08%	8.81E-07 0.08%	8.81E-07 0.08%	8.81E-07 0.08%	8.81E-07 0.08%	1.07E-06 0.08%
I 133	4.72E-07 0.04%	4.72E-07 0.04%	4.72E-07 0.04%	4.72E-07 0.04%	4.72E-07 0.04%	4.72E-07 0.04%	4.72E-07 0.04%	5.74E-07 0.04%
SR 89	6.91E-11 0.0 %	6.91E-11 0.0 %	6.91E-11 0.0 %	6.91E-11 0.0 %	6.91E-11 0.0 %	6.91E-11 0.0 %	6.91E-11 0.0 %	8.02E-11 0.0 %
CS134	4.60E-05 3.98%	4.60E-05 3.98%	4.60E-05 3.98%	4.60E-05 3.98%	4.60E-05 3.98%	4.60E-05 3.98%	4.60E-05 3.98%	5.37E-05 3.95%
CS137	1.40E-04 12.12%	1.40E-04 12.12%	1.40E-04 12.12%	1.40E-04 12.12%	1.40E-04 12.12%	1.40E-04 12.12%	1.40E-04 12.12%	1.63E-04 12.04%
BA140	7.81E-07 0.07%	7.81E-07 0.07%	7.81E-07 0.07%	7.81E-07 0.07%	7.81E-07 0.07%	7.81E-07 0.07%	7.81E-07 0.07%	8.93E-07 0.07%
I 131	2.53E-08 0.0 %	2.53E-08 0.0 %	2.53E-08 0.0 %	2.53E-08 0.0 %	2.53E-08 0.0 %	2.53E-08 0.0 %	2.53E-08 0.0 %	3.07E-08 0.0 %
CO 58	2.51E-07 0.02%	2.51E-07 0.02%	2.51E-07 0.02%	2.51E-07 0.02%	2.51E-07 0.02%	2.51E-07 0.02%	2.51E-07 0.02%	2.94E-07 0.02%
CO 60	9.56E-04 82.67%	9.56E-04 82.67%	9.56E-04 82.67%	9.56E-04 82.67%	9.56E-04 82.67%	9.56E-04 82.67%	9.56E-04 82.67%	1.12E-03 82.79%
MN 54	1.18E-05 1.02%	1.18E-05 1.02%	1.18E-05 1.02%	1.18E-05 1.02%	1.18E-05 1.02%	1.18E-05 1.02%	1.18E-05 1.02%	1.38E-05 1.01%
I 131	4.23E-09 0.0 %	4.23E-09 0.0 %	4.23E-09 0.0 %	4.23E-09 0.0 %	4.23E-09 0.0 %	4.23E-09 0.0 %	4.23E-09 0.0 %	5.14E-09 0.0 %
TOTAL	1.16E-03	1.16E-03	1.16E-03	1.16E-03	1.16E-03	1.16E-03	1.16E-03	1.36E-03

COOPER NUCLEAR STATION : THIRD QUARTERLY PERIOD 1981 : COMBINED RELEASE
NEPA ANNUAL INTEGRATED POPULATION DOSE SUMMARY (MANREM)
PATHWAY = INHAL

NUCLIDE	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
I 131	8.48E-07 10.16%	2.16E-07 1.91%	1.16E-06 4.01%	1.50E-06 11.78%	2.54E-06 28.02%	4.93E-04 60.31%	0.0 0.0 %	0.0 0.0 %
I 133	6.16E-07 7.38%	9.84E-07 8.69%	1.22E-06 4.24%	1.92E-06 15.08%	3.31E-06 36.56%	2.97E-04 36.29%	0.0 0.0 %	0.0 0.0 %
SR 89	1.11E-08 0.13%	3.31E-07 2.93%	3.86E-07 1.34%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	1.71E-06 0.87%	0.0 0.0 %
SR 90	1.19E-06 14.25%	1.26E-07 1.11%	1.92E-05 66.69%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	2.16E-06 1.09%	0.0 0.0 %
CS134	2.37E-06 28.44%	3.52E-08 0.31%	1.68E-06 5.83%	3.49E-06 27.48%	1.17E-06 12.92%	0.0 0.0 %	4.12E-07 0.21%	0.0 0.0 %
CS137	2.76E-06 33.03%	5.75E-08 0.51%	4.40E-06 15.27%	5.21E-06 41.00%	1.85E-06 20.39%	0.0 0.0 %	6.52E-07 0.33%	0.0 0.0 %
BA140	4.39E-08 0.53%	2.91E-06 25.74%	6.90E-07 2.40%	7.90E-10 0.0 %	2.67E-10 0.0 %	0.0 0.0 %	2.11E-05 10.69%	0.0 0.0 %
I 131	4.48E-08 0.54%	1.14E-08 0.10%	6.11E-08 0.21%	7.91E-08 0.62%	1.34E-07 1.49%	2.61E-05 3.13%	0.0 0.0 %	0.0 0.0 %
CO 58	8.22E-10 0.0 %	3.23E-08 0.29%	0.0 0.0 %	5.86E-10 0.0 %	0.0 0.0 %	0.0 0.0 %	3.53E-07 0.18%	0.0 0.0 %
CO 60	4.26E-07 5.10%	6.30E-06 55.63%	0.0 0.0 %	3.10E-07 2.44%	0.0 0.0 %	0.0 0.0 %	1.64E-04 83.05%	0.0 0.0 %
MN 54	3.37E-08 0.40%	3.15E-07 2.78%	0.0 0.0 %	1.96E-07 1.55%	4.83E-08 0.53%	0.0 0.0 %	7.09E-06 3.59%	0.0 0.0 %
I 131	3.00E-09 0.04%	7.62E-10 0.0 %	4.09E-09 0.01%	5.29E-09 0.04%	8.97E-09 0.10%	1.74E-06 0.21%	0.0 0.0 %	0.0 0.0 %
TOTAL	8.35E-06	1.13E-05	2.88E-05	1.27E-05	9.06E-06	8.18E-04	1.98E-04	0.0

COOPER NUCLEAR STATION : THIRD QUARTERLY PERIOD 1981 : COMBINED RELEASE
NEPA ANNUAL INTEGRATED POPULATION DOSE SUMMARY (MANREM)
PATHWAY = VEGET

NUCLIDE	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
I 131	3.15E-05 4.18%	1.05E-05 1.89%	4.52E-05 2.25%	5.57E-05 6.36%	9.39E-05 26.39%	1.80E-02 96.86%	0.0 0.0 %	0.0 0.0 %
I 133	2.21E-10 0.0 %	4.58E-10 0.0 %	4.43E-10 0.0 %	6.65E-10 0.0 %	1.14E-09 0.0 %	1.07E-07 0.0 %	0.0 0.0 %	0.0 0.0 %
SR 89	7.03E-06 0.93%	2.41E-05 4.33%	2.46E-04 12.21%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
SR 90	2.72E-04 36.00%	2.60E-05 4.66%	1.09E-03 54.40%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
CS134	1.59E-04 21.11%	3.60E-06 0.65%	1.40E-04 6.96%	2.87E-04 32.79%	9.13E-05 25.64%	0.0 0.0 %	3.17E-05 35.51%	0.0 0.0 %
CS137	2.08E-04 27.61%	6.77E-06 1.22%	4.19E-04 20.84%	4.92E-04 56.23%	1.65E-04 46.25%	0.0 0.0 %	5.76E-05 64.44%	0.0 0.0 %
BA140	4.09E-06 0.54%	8.45E-05 15.17%	6.59E-05 3.27%	7.10E-08 0.0 %	2.37E-08 0.0 %	0.0 0.0 %	4.22E-08 0.05%	0.0 0.0 %
I 131	8.70E-07 0.12%	2.90E-07 0.05%	1.25E-06 0.06%	1.54E-06 0.18%	2.59E-06 0.73%	4.98E-04 2.67%	0.0 0.0 %	0.0 0.0 %
CO 58	2.65E-07 0.04%	1.52E-06 0.27%	0.0 0.0 %	1.05E-07 0.01%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
CO 60	6.91E-05 9.16%	3.77E-04 67.67%	0.0 0.0 %	2.80E-05 3.20%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
MN 54	2.26E-06 0.30%	2.28E-05 4.09%	0.0 0.0 %	1.04E-05 1.19%	3.04E-06 0.85%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
I 131	1.53E-07 0.02%	5.11E-08 0.0 %	2.20E-07 0.01%	2.70E-07 0.03%	4.56E-07 0.13%	8.77E-05 0.47%	0.0 0.0 %	0.0 0.0 %
TOTAL	7.55E-04	5.57E-04	2.01E-03	8.75E-04	3.56E-04	1.86E-02	8.94E-05	0.0

COOPER NUCLEAR STATION : THIRD QUARTERLY PERIOD 1981 : COMBINED RELEASE
NEPA ANNUAL INTEGRATED POPULATION DOSE SUMMARY (MANREM)
PATHWAY = COW MILK

NUCLIDE	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
I 131	6.59E-05 8.18%	2.04E-05 17.44%	3.72E-05 6.60%	1.17E-04 6.70%	1.96E-04 26.74%	3.77E-02 96.14%	0.0 0.0 %	0.0 0.0 %
I 133	6.04E-07 0.08%	1.16E-06 0.99%	1.22E-05 0.08%	1.78E-06 0.10%	3.05E-06 0.42%	2.92E-04 0.74%	0.0 0.0 %	0.0 0.0 %
SR 89	9.72E-07 0.12%	3.01E-06 2.58%	3.40E-05 2.30%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
SR 90	3.59E-05 4.46%	3.26E-06 2.79%	1.44E-04 9.78%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
CS134	3.00E-04 37.32%	6.89E-05 5.89%	2.99E-04 20.27%	5.96E-04 34.27%	1.89E-04 25.75%	0.0 0.0 %	6.63E-05 35.64%	0.0 0.0 %
CS137	3.87E-04 48.00%	1.29E-05 11.04%	8.89E-04 60.29%	1.02E-03 58.41%	3.39E-04 46.20%	0.0 0.0 %	1.20E-04 64.35%	0.0 0.0 %
BA140	4.11E-07 0.05%	7.75E-06 6.64%	6.68E-06 0.45%	7.01E-09 0.0 %	2.34E-09 0.0 %	0.0 0.0 %	4.19E-09 0.0 %	0.0 0.0 %
I 131	1.82E-06 0.23%	5.63E-07 0.48%	2.68E-06 0.18%	3.22E-06 0.18%	5.41E-06 0.74%	1.04E-03 2.65%	0.0 0.0 %	0.0 0.0 %
CO 58	4.45E-08 0.0 %	2.29E-07 0.20%	0.0 0.0 %	1.72E-08 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
CO 60	1.22E-05 1.51%	5.97E-05 51.12%	0.0 0.0 %	4.82E-06 0.28%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
MN 54	9.76E-08 0.01%	8.81E-07 0.75%	0.0 0.0 %	4.39E-07 0.03%	1.28E-07 0.02%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
I 131	3.20E-07 0.04%	9.91E-08 0.08%	4.73E-07 0.03%	5.66E-07 0.03%	9.53E-07 0.13%	1.83E-04 0.47%	0.0 0.0 %	0.0 0.0 %
TOTAL	8.05E-04	1.17E-04	1.47E-03	1.74E-03	7.33E-04	3.92E-02	1.86E-04	0.0

COOPER NUCLEAR STATION : THIRD QUARTERLY PERIOD 1981 : COMBINED RELEASE
NEPA ANNUAL INTEGRATED POPULATION DOSE SUMMARY (MANREM)
PATHWAY = MEAT

NUCLIDE	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
I 131	5.23E-06 1.59%	2.04E-06 0.29%	6.98E-06 2.03%	9.19E-06 2.27%	1.56E-05 11.78%	2.99E-03 96.86%	0.0 0.0 %	0.0 0.0 %
I 133	4.85E-13 0.0 %	1.19E-12 0.0 %	9.45E-13 0.0 %	1.51E-12 0.0 %	2.62E-12 0.0 %	2.34E-10 0.0 %	0.0 0.0 %	0.0 0.0 %
SR 89	3.43E-07 0.10%	1.48E-06 0.21%	1.20E-05 3.48%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
SR 90	1.87E-05 5.69%	1.99E-06 0.28%	7.57E-05 22.07%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
CS134	8.80E-05 26.81%	1.94E-06 0.27%	5.96E-05 17.38%	1.31E-04 32.40%	4.20E-05 31.65%	0.0 0.0 %	1.43E-05 36.00%	0.0 0.0 %
CS137	1.16E-04 35.22%	3.58E-06 0.51%	1.75E-04 51.09%	2.20E-04 54.54%	7.42E-05 55.97%	0.0 0.0 %	2.55E-05 63.98%	0.0 0.0 %
BA140	8.46E-07 0.26%	2.14E-05 3.02%	1.33E-05 3.88%	1.54E-08 0.0 %	5.18E-09 0.0 %	0.0 0.0 %	9.01E-09 0.02%	0.0 0.0 %
I 131	1.44E-07 0.04%	5.64E-08 0.0 %	1.93E-07 0.06%	2.54E-07 0.06%	4.31E-07 0.33%	8.24E-05 2.67%	0.0 0.0 %	0.0 0.0 %
CO 58	3.12E-07 0.09%	2.23E-06 0.32%	0.0 0.0 %	1.30E-07 0.03%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
CO 60	9.89E-05 30.11%	6.71E-04 94.76%	0.0 0.0 %	4.22E-05 10.45%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
MN 54	1.90E-07 0.06%	2.41E-06 0.34%	0.0 0.0 %	9.31E-07 0.23%	2.74E-07 0.21%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
I 131	2.54E-08 0.0 %	9.93E-09 0.0 %	3.39E-08 0.0 %	4.46E-08 0.01%	7.59E-08 0.06%	1.45E-05 0.47%	0.0 0.0 %	0.0 0.0 %
TOTAL	3.28E-04	7.08E-04	3.43E-04	4.04E-04	1.33E-04	3.08E-03	3.90E-05	0.0

COOPER NUCLEAR STATION : THIRD QUARTERLY PERIOD 1981 : COMBINED RELEASE
NEPA ANNUAL INTEGRATED POPULATION DOSE SUMMARY (MANREM)
PATHWAY = *TOTAL*

NUCLIDE	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
KR 85	2.31E-04 0.49%	2.31E-04 0.49%	2.31E-04 0.47%	2.31E-04 0.48%	2.31E-04 0.50%	2.31E-04 0.22%	7.67E-04 1.61%	3.87E-02 25.08%
KR 85M	1.60E-03 3.39%	1.60E-03 3.42%	1.60E-03 3.25%	1.60E-03 3.31%	1.60E-03 3.43%	1.60E-03 1.49%	1.65E-03 3.46%	5.85E-03 3.79%
KR 87	2.00E-03 4.23%	2.00E-03 4.28%	2.00E-03 4.07%	2.00E-03 4.13%	2.00E-03 4.29%	2.00E-03 1.87%	2.07E-03 4.34%	8.88E-03 5.75%
KR 88	1.91E-02 40.47%	1.91E-02 40.91%	1.91E-02 38.85%	1.91E-02 39.52%	1.91E-02 41.05%	1.91E-02 17.84%	1.92E-02 40.25%	2.81E-02 18.18%
XE133	1.17E-02 24.70%	1.17E-02 24.96%	1.17E-02 23.71%	1.17E-02 24.12%	1.17E-02 25.05%	1.17E-02 10.89%	1.25E-02 26.20%	3.98E-02 25.77%
XE135	8.95E-03 18.98%	8.95E-03 19.18%	8.95E-03 18.22%	8.95E-03 18.51%	8.95E-03 19.05%	8.95E-03 8.37%	9.20E-03 19.30%	2.89E-02 18.75%
XE135M	3.02E-05 0.06%	3.02E-05 0.06%	3.02E-05 0.06%	3.02E-05 0.06%	3.02E-05 0.06%	3.02E-05 0.03%	3.04E-05 0.06%	4.99E-05 0.03%
XE138	3.85E-04 0.82%	3.85E-04 0.82%	3.85E-04 0.78%	3.85E-04 0.80%	3.85E-04 0.83%	3.85E-04 0.36%	3.89E-04 0.82%	8.05E-04 0.52%
KR 89	1.51E-07 0.0 %	1.51E-07 0.0 %	1.51E-07 0.0 %	1.51E-07 0.0 %	1.51E-07 0.0 %	1.51E-07 0.0 %	1.53E-07 0.0 %	3.58E-07 0.0 %
KR 83M	8.51E-09 0.0 %	8.51E-09 0.0 %	8.51E-09 0.0 %	8.51E-09 0.0 %	8.51E-09 0.0 %	8.51E-09 0.0 %	6.64E-07 0.0 %	2.41E-06 0.0 %
XE137	8.26E-08 0.0 %	8.26E-08 0.0 %	8.26E-08 0.0 %	8.26E-08 0.0 %	8.26E-08 0.0 %	8.26E-08 0.0 %	9.69E-08 0.0 %	1.52E-06 0.0 %
XE133M	1.24E-04 0.26%	1.24E-04 0.27%	1.24E-04 0.25%	1.24E-04 0.26%	1.24E-04 0.27%	1.24E-04 0.12%	1.39E-04 0.29%	1.16E-03 0.75%
XE131M	6.23E-05 0.13%	6.23E-05 0.13%	6.23E-05 0.13%	6.23E-05 0.13%	6.23E-05 0.13%	6.23E-05 0.06%	7.72E-05 0.16%	7.66E-04 0.50%
I 131	1.04E-04 0.22%	3.40E-05 0.07%	1.52E-04 0.31%	1.84E-04 0.38%	3.09E-04 0.66%	5.92E-02 55.33%	8.81E-07 0.0 %	1.07E-06 0.0 %
I 133	1.69E-06 0.0 %	2.62E-06 0.0 %	2.91E-06 0.0 %	4.17E-06 0.0 %	6.84E-06 0.01%	5.89E-04 0.55%	4.72E-07 0.0 %	5.74E-07 0.0 %
SR 89	8.36E-06 0.02%	2.89E-05 0.06%	2.92E-04 0.59%	6.91E-11 0.0 %	6.91E-11 0.0 %	6.91E-11 0.0 %	1.71E-06 0.0 %	8.02E-11 0.0 %
SR 90	3.28E-04 0.69%	3.13E-05 0.07%	1.33E-03 2.71%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	2.16E-06 0.0 %	0.0 0.0 %
CS134	5.96E-04 1.26%	5.85E-05 0.13%	5.46E-04 1.11%	1.06E-03 2.20%	3.69E-04 0.79%	4.60E-05 0.04%	1.59E-04 0.33%	5.37E-05 0.03%
CS137	8.54E-04 1.81%	1.63E-04 0.35%	1.63E-03 3.31%	1.87E-03 3.88%	7.20E-04 1.55%	1.40E-04 0.13%	3.44E-04 0.72%	1.63E-04 0.11%
BA140	5.17E-06 0.01%	1.17E-04 0.25%	8.73E-05 0.18%	8.75E-07 0.0 %	8.13E-07 0.0 %	7.81E-07 0.0 %	2.20E-05 0.05%	8.93E-07 0.0 %
I 131	2.90E-06 0.0 %	9.46E-07 0.0 %	4.21E-06 0.0 %	5.11E-06 0.01%	8.59E-06 0.02%	1.65E-03 1.54%	2.53E-08 0.0 %	3.07E-08 0.0 %
CO 58	8.73E-07 0.0 %	4.27E-06 0.0 %	2.51E-07 0.0 %	5.04E-07 0.0 %	2.51E-07 0.0 %	2.51E-07 0.0 %	6.04E-07 0.0 %	2.94E-07 0.0 %
CO 60	1.14E-03 2.41%	2.37E-03 4.43%	9.56E-04 1.94%	1.03E-03 2.13%	9.56E-04 2.05%	9.56E-04 0.89%	1.12E-03 2.35%	1.12E-03 0.73%
MN 54	1.45E-05 0.03%	3.81E-05 0.08%	1.18E-05 0.02%	2.37E-05 0.05%	1.52E-05 0.03%	1.18E-05 0.01%	1.88E-05 0.04%	1.38E-05 0.0 %
I 131	5.06E-07 0.0 %	1.65E-07 0.0 %	7.35E-07 0.0 %	8.91E-07 0.0 %	1.50E-06 0.0 %	2.87E-04 0.27%	4.23E-09 0.0 %	5.14E-09 0.0 %
TOTAL	4.72E-02	4.67E-02	4.91E-02	4.83E-02	4.65E-02	1.07E-01	4.77E-02	1.54E-01

COOPER NUCLEAR STATION : FOURTH QUARTERLY PERIOD 1981 : COMBINED RELEASE
NEPA ANNUAL INTEGRATED POPULATION DOSE SUMMARY (MANREM)

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	2.21E-01 98.96%	2.21E-01 99.41%	2.21E-01 97.07%	2.21E-01 99.23%	2.21E-01 99.54%	2.21E-01 86.26%	2.28E-01 99.69%	6.08E-01 99.91%
GROUND	4.86E-04 0.22%	4.86E-04 0.22%	4.86E-04 0.21%	4.86E-04 0.22%	4.86E-04 0.22%	4.86E-04 0.19%	4.86E-04 0.21%	5.72E-04 0.09%
INHAL	7.68E-06 0.00%	7.51E-06 0.00%	7.96E-05 0.04%	5.52E-06 0.00%	4.66E-06 0.00%	4.55E-04 0.18%	1.06E-04 0.05%	0.0 0.0 %
VEGET	1.19E-03 0.53%	4.02E-04 0.18%	4.62E-03 2.03%	3.55E-04 0.16%	1.56E-04 0.07%	1.04E-02 4.08%	3.48E-05 0.02%	0.0 0.0 %
COW MILK	4.49E-04 0.20%	7.16E-05 0.03%	1.08E-03 0.48%	7.01E-04 0.32%	3.21E-04 0.14%	2.20E-02 8.61%	7.24E-05 0.03%	0.0 0.0 %
MEAT	1.98E-04 0.09%	3.41E-04 0.15%	3.96E-04 0.17%	1.63E-04 0.07%	5.45E-05 0.02%	1.73E-03 0.68%	1.55E-05 0.01%	0.0 0.0 %
TOTAL	2.23E-01	2.22E-01	2.27E-01	2.22E-01	2.22E-01	2.56E-01	2.28E-01	6.08E-01

COOPER NUCLEAR STATION : FOURTH QUARTERLY PERIOD 1981 : COMBINED RELEASE
NEPA ANNUAL INTEGRATED POPULATION DOSE SUMMARY (MANREM)
PATHWAY = PLUME

NUCLIDE	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
KR 85	1.95E-04 0.09%	1.95E-04 0.09%	1.95E-04 0.09%	1.95E-04 0.09%	1.95E-04 0.09%	1.95E-04 0.09%	6.49E-04 0.29%	3.27E-02 5.39%
KR 85M	4.51E-03 2.04%	4.51E-03 2.04%	4.51E-03 2.04%	4.51E-03 2.04%	4.51E-03 2.04%	4.51E-03 2.04%	4.66E-03 2.05%	1.65E-02 2.72%
KR 87	1.10E-02 4.96%	1.10E-02 4.96%	1.10E-02 4.96%	1.10E-02 4.96%	1.10E-02 4.96%	1.10E-02 4.96%	1.13E-02 4.98%	4.87E-02 8.01%
KR 88	9.41E-02 42.63%	9.41E-02 42.63%	9.41E-02 42.63%	9.41E-02 42.63%	9.41E-02 42.63%	9.41E-02 42.63%	9.45E-02 41.52%	1.38E-01 22.76%
XE133	5.59E-02 25.31%	5.59E-02 25.31%	5.59E-02 25.31%	5.59E-02 25.31%	5.59E-02 25.31%	5.59E-02 25.31%	5.99E-02 26.29%	1.91E-01 31.38%
XE135	5.19E-02 23.51%	5.19E-02 23.51%	5.19E-02 23.51%	5.19E-02 23.51%	5.19E-02 23.51%	5.19E-02 23.51%	5.33E-02 23.42%	1.68E-01 27.60%
XE135M	1.68E-04 0.08%	1.68E-04 0.08%	1.68E-04 0.08%	1.68E-04 0.08%	1.68E-04 0.08%	1.68E-04 0.08%	1.69E-04 0.07%	2.77E-04 0.05%
XE138	2.17E-03 0.98%	2.17E-03 0.98%	2.17E-03 0.98%	2.17E-03 0.98%	2.17E-03 0.98%	2.17E-03 0.98%	2.19E-03 0.96%	4.54E-03 0.75%
KR 89	1.18E-05 0.0 %	1.18E-05 0.0 %	1.18E-05 0.0 %	1.18E-05 0.0 %	1.18E-05 0.0 %	1.18E-05 0.0 %	1.20E-05 0.0 %	2.80E-05 0.0 %
KR 83M	4.69E-08 0.0 %	4.69E-08 0.0 %	4.69E-08 0.0 %	4.69E-08 0.0 %	4.69E-08 0.0 %	4.69E-08 0.0 %	3.66E-06 0.0 %	1.33E-05 0.0 %
XE137	3.28E-06 0.0 %	3.28E-06 0.0 %	3.28E-06 0.0 %	3.28E-06 0.0 %	3.28E-06 0.0 %	3.28E-06 0.0 %	3.85E-06 0.0 %	6.02E-05 0.0 %
XE133M	7.40E-04 0.34%	7.40E-04 0.34%	7.40E-04 0.34%	7.40E-04 0.34%	7.40E-04 0.34%	7.40E-04 0.34%	8.26E-04 0.36%	6.93E-03 1.14%
XE131M	9.65E-05 0.04%	9.65E-05 0.04%	9.65E-05 0.04%	9.65E-05 0.04%	9.65E-05 0.04%	9.65E-05 0.04%	1.20E-04 0.05%	1.19E-03 0.20%
TOTAL	2.21E-01	2.21E-01	2.21E-01	2.21E-01	2.21E-01	2.21E-01	2.28E-01	6.08E-01

COOPER NUCLEAR STATION : FOURTH QUARTERLY PERIOD 1981 : COMBINED RELEASE
NEPA ANNUAL INTEGRATED POPULATION DOSE SUMMARY (MANREM)
PATHWAY = GROUND

NUCLIDE	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
I 131	4.61E-07 0.09%	4.61E-07 0.09%	4.61E-07 0.09%	4.61E-07 0.09%	4.61E-07 0.09%	4.61E-07 0.09%	4.61E-07 0.09%	5.60E-07 0.10%
I 133	2.85E-07 0.06%	2.85E-07 0.06%	2.85E-07 0.06%	2.85E-07 0.06%	2.85E-07 0.06%	2.85E-07 0.06%	2.85E-07 0.06%	3.46E-07 0.06%
SR 89	1.08E-10 0.0 %	1.08E-10 0.0 %	1.08E-10 0.0 %	1.08E-10 0.0 %	1.08E-10 0.0 %	1.08E-10 0.0 %	1.08E-10 0.0 %	1.26E-10 0.0 %
CS134	2.00E-05 4.11%	2.00E-05 4.11%	2.00E-05 4.11%	2.00E-05 4.11%	2.00E-05 4.11%	2.00E-05 4.11%	2.00E-05 4.11%	2.33E-05 4.08%
CS137	4.64E-05 9.54%	4.64E-05 9.54%	4.64E-05 9.54%	4.64E-05 9.54%	4.64E-05 9.54%	4.64E-05 9.54%	4.64E-05 9.54%	5.41E-05 9.47%
BA140	6.65E-07 0.14%	6.65E-07 0.14%	6.65E-07 0.14%	6.65E-07 0.14%	6.65E-07 0.14%	6.65E-07 0.14%	6.65E-07 0.14%	7.60E-07 0.13%
I 131	2.55E-08 0.0 %	2.55E-08 0.0 %	2.55E-08 0.0 %	2.55E-08 0.0 %	2.55E-08 0.0 %	2.55E-08 0.0 %	2.55E-08 0.0 %	3.09E-08 0.0 %
CO 58	7.51E-08 0.02%	7.51E-08 0.02%	7.51E-08 0.02%	7.51E-08 0.02%	7.51E-08 0.02%	7.51E-08 0.02%	7.51E-08 0.02%	8.80E-08 0.02%
CO 60	4.13E-04 84.96%	4.13E-04 84.96%	4.13E-04 84.96%	4.13E-04 84.96%	4.13E-04 84.96%	4.13E-04 84.96%	4.13E-04 84.96%	4.86E-04 85.06%
MN 54	5.29E-06 1.09%	5.29E-06 1.09%	5.29E-06 1.09%	5.29E-06 1.09%	5.29E-06 1.09%	5.29E-06 1.09%	5.29E-06 1.09%	6.20E-06 1.09%
I 131	1.40E-09 0.0 %	1.40E-09 0.0 %	1.40E-09 0.0 %	1.40E-09 0.0 %	1.40E-09 0.0 %	1.40E-09 0.0 %	1.40E-09 0.0 %	1.70E-09 0.0 %
TOTAL	4.86E-04	4.86E-04	4.86E-04	4.86E-04	4.86E-04	4.86E-04	4.86E-04	5.72E-04

COOPER NUCLEAR STATION : FOURTH QUARTERLY PERIOD 1981 : COMBINED RELEASE
NEPA ANNUAL INTEGRATED POPULATION DOSE SUMMARY (MANREM)
PATHWAY = INHAL

NUCLIDE	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
I 131	4.01E-07 5.22%	1.02E-07 1.36%	5.46E-07 0.69%	7.07E-07 12.82%	1.20E-06 25.72%	2.33E-04 51.15%	0.0 0.0 %	0.0 0.0 %
I 133	4.06E-07 5.29%	6.48E-07 8.64%	8.05E-07 1.01%	1.26E-06 22.91%	2.18E-06 46.82%	1.96E-04 42.95%	0.0 0.0 %	0.0 0.0 %
SR 89	2.08E-08 0.27%	6.22E-07 8.29%	7.24E-07 0.91%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	3.21E-06 3.04%	0.0 0.0 %
SR 90	4.62E-06 60.21%	4.89E-07 6.51%	7.46E-05 93.75%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	8.38E-06 7.93%	0.0 0.0 %
CS134	1.02E-06 13.30%	1.51E-08 0.20%	7.22E-07 0.91%	1.50E-06 27.22%	5.03E-07 10.79%	0.0 0.0 %	1.77E-07 0.17%	0.0 0.0 %
CS137	9.20E-07 11.99%	1.92E-08 0.26%	1.47E-06 1.85%	1.74E-06 31.53%	6.17E-07 13.23%	0.0 0.0 %	2.18E-07 0.21%	0.0 0.0 %
BA140	4.13E-08 0.54%	2.75E-06 36.58%	6.51E-07 0.82%	7.45E-10 0.01%	2.51E-10 0.0 %	0.0 0.0 %	1.99E-05 18.85%	0.0 0.0 %
I 131	4.51E-08 0.59%	1.15E-08 0.15%	6.15E-08 0.08%	7.96E-08 1.44%	1.35E-07 2.90%	2.62E-05 5.76%	0.0 0.0 %	0.0 0.0 %
CO 58	2.65E-10 0.0 %	1.04E-08 0.14%	0.0 0.0 %	1.89E-10 0.0 %	0.0 0.0 %	0.0 0.0 %	1.14E-07 0.11%	0.0 0.0 %
CO 60	1.83E-07 2.38%	2.70E-06 35.98%	0.0 0.0 %	1.33E-07 2.41%	0.0 0.0 %	0.0 0.0 %	7.04E-05 66.67%	0.0 0.0 %
MN 54	1.52E-08 0.20%	1.42E-07 1.89%	0.0 0.0 %	8.85E-08 1.60%	2.17E-08 0.47%	0.0 0.0 %	3.19E-06 3.02%	0.0 0.0 %
I 131	1.08E-09 0.01%	2.73E-10 0.0 %	1.46E-09 0.0 %	1.90E-09 0.03%	3.22E-09 0.07%	6.25E-07 0.14%	0.0 0.0 %	0.0 0.0 %
TOTAL	7.68E-06	7.51E-06	7.96E-05	5.52E-06	4.66E-06	4.55E-04	1.06E-04	0.0

COOPER NUCLEAR STATION : FOURTH QUARTERLY PERIOD 1981 : COMBINED RELEASE
NEPA ANNUAL INTEGRATED POPULATION DOSE SUMMARY (MANREM)
PATHWAY = VEGET

NUCLIDE	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
I 131	1.73E-05 1.46%	5.76E-06 1.43%	2.48E-05 0.54%	3.05E-05 8.60%	5.15E-05 33.09%	9.89E-03 94.61%	0.0 0.0 %	0.0 0.0 %
I 133	1.41E-10 0.0 %	2.93E-10 0.0 %	2.83E-10 0.0 %	4.24E-10 0.0 %	7.28E-10 0.0 %	6.83E-08 0.0 %	0.0 0.0 %	0.0 0.0 %
SR 89	1.15E-05 0.96%	3.93E-05 9.78%	4.00E-04 9.65%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
SR 90	9.75E-04 82.10%	9.31E-05 23.17%	3.93E-03 84.94%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
CS134	7.34E-05 6.18%	1.66E-06 0.41%	6.45E-05 1.39%	1.32E-04 37.26%	4.20E-05 27.01%	0.0 0.0 %	1.46E-05 41.96%	0.0 0.0 %
CS137	7.30E-05 6.15%	2.37E-06 0.59%	1.47E-04 3.18%	1.72E-04 48.61%	5.76E-05 37.06%	0.0 0.0 %	2.02E-05 57.93%	0.0 0.0 %
BA140	3.64E-06 0.31%	7.51E-05 18.71%	5.86E-05 1.27%	6.31E-08 0.02%	2.11E-08 0.01%	0.0 0.0 %	3.75E-08 0.11%	0.0 0.0 %
I 131	9.32E-07 0.08%	3.11E-07 0.08%	1.34E-06 0.03%	1.65E-06 0.46%	2.78E-06 1.79%	5.33E-04 5.10%	0.0 0.0 %	0.0 0.0 %
CO 58	8.32E-08 0.0 %	4.77E-07 0.12%	0.0 0.0 %	3.29E-08 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
CO 60	3.17E-05 2.67%	1.75E-04 43.00%	0.0 0.0 %	1.28E-05 3.62%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
MN 54	1.08E-06 0.09%	1.08E-05 2.70%	0.0 0.0 %	4.96E-06 1.40%	1.45E-06 0.93%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
I 131	5.27E-08 0.0 %	1.76E-08 0.0 %	7.56E-08 0.0 %	9.30E-08 0.03%	1.57E-07 0.10%	3.01E-05 0.29%	0.0 0.0 %	0.0 0.0 %
TOTAL	1.19E-03	4.02E-04	4.62E-03	3.55E-04	1.56E-04	1.04E-02	3.48E-05	0.0

COOPER NUCLEAR STATION : FOURTH QUARTERLY PERIOD 1981 : COMBINED RELEASE
NEPA ANNUAL INTEGRATED POPULATION DOSE SUMMARY (MANREM)
PATHWAY = COW MILK

NUCLIDE	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
I 131	3.61E-05 8.05%	1.12E-05 15.60%	5.33E-05 4.92%	6.39E-05 9.11%	1.07E-04 33.46%	2.07E-02 93.81%	0.0 0.0 %	0.0 0.0 %
I 133	3.86E-07 0.09%	7.42E-07 1.04%	7.79E-07 0.07%	1.14E-06 0.16%	1.95E-06 0.61%	1.86E-04 0.85%	0.0 0.0 %	0.0 0.0 %
SR 89	1.58E-06 0.35%	4.91E-06 6.85%	5.53E-05 5.10%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
SR 90	1.29E-04 28.69%	1.17E-05 16.31%	5.17E-04 47.69%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
CS134	1.38E-04 30.84%	3.17E-06 4.43%	1.38E-04 12.68%	2.74E-04 39.12%	8.69E-05 27.06%	0.0 0.0 %	3.05E-05 42.13%	0.0 0.0 %
CS137	1.35E-04 30.18%	4.52E-06 6.31%	3.11E-04 28.70%	3.56E-04 50.74%	1.19E-04 36.94%	0.0 0.0 %	4.19E-05 57.87%	0.0 0.0 %
BA140	3.66E-07 0.08%	6.90E-06 9.63%	5.94E-06 0.55%	6.23E-09 0.0 %	2.08E-09 0.0 %	0.0 0.0 %	3.73E-09 0.0 %	0.0 0.0 %
I 131	1.95E-06 0.43%	6.03E-07 0.84%	2.88E-06 0.27%	3.45E-06 0.49%	5.80E-06 1.81%	1.11E-03 5.06%	0.0 0.0 %	0.0 0.0 %
CO 58	1.40E-08 0.0 %	7.22E-08 0.10%	0.0 0.0 %	5.41E-09 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
CO 60	5.57E-06 1.24%	2.74E-05 38.24%	0.0 0.0 %	2.21E-06 0.32%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
MN 54	4.65E-08 0.01%	4.20E-07 0.59%	0.0 0.0 %	2.09E-07 0.03%	6.08E-08 0.02%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
I 131	1.10E-07 0.02%	3.41E-08 0.05%	1.63E-07 0.01%	1.95E-07 0.03%	3.28E-07 0.10%	6.30E-05 0.29%	0.0 0.0 %	0.0 0.0 %
TOTAL	4.49E-04	7.16E-05	1.08E-03	7.01E-04	3.21E-04	2.20E-02	7.24E-05	0.0

COOPER NUCLEAR STATION : FOURTH QUARTERLY PERIOD 1981 : COMBINED RELEASE
NEPA ANNUAL INTEGRATED POPULATION DOSE SUMMARY (MANREM)
PATHWAY = MEAT

NUCLIDE	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
I 131	2.86E-06 1.45%	1.12E-06 0.33%	3.83E-06 0.97%	5.03E-06 3.10%	8.56E-06 15.71%	1.64E-03 94.61%	0.0 0.0 %	0.0 0.0 %
I 133	3.09E-13 0.0 %	7.58E-13 0.0 %	6.03E-13 0.0 %	9.67E-13 0.0 %	1.67E-12 0.0 %	1.49E-10 0.0 %	0.0 0.0 %	0.0 0.0 %
SR 89	5.58E-07 0.28%	2.41E-06 0.71%	1.95E-05 4.92%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
SR 90	6.70E-05 33.88%	7.13E-06 2.09%	2.71E-04 68.61%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
CS134	4.05E-05 20.48%	8.91E-07 0.26%	2.74E-05 6.94%	6.02E-05 37.06%	1.93E-05 35.45%	0.0 0.0 %	6.59E-06 42.49%	0.0 0.0 %
CS137	4.05E-05 20.46%	1.25E-06 0.37%	6.14E-05 15.52%	7.71E-05 47.46%	2.60E-05 47.69%	0.0 0.0 %	8.91E-06 57.46%	0.0 0.0 %
BA140	7.52E-07 0.38%	1.90E-05 5.57%	1.18E-05 2.99%	1.37E-08 0.0 %	4.60E-09 0.0 %	0.0 0.0 %	8.01E-09 0.05%	0.0 0.0 %
I 131	1.54E-07 0.08%	6.04E-08 0.02%	2.06E-07 0.05%	2.72E-07 0.17%	4.62E-07 0.85%	8.83E-05 5.10%	0.0 0.0 %	0.0 0.0 %
CO 58	9.79E-08 0.05%	7.02E-07 0.21%	0.0 0.0 %	4.10E-08 0.03%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
CO 60	4.53E-05 22.90%	3.07E-04 90.11%	0.0 0.0 %	1.93E-05 11.90%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
MN 54	9.06E-08 0.05%	1.15E-06 0.34%	0.0 0.0 %	4.43E-07 0.27%	1.31E-07 0.24%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
I 131	8.73E-09 0.0 %	3.41E-09 0.0 %	1.17E-08 0.0 %	1.54E-08 0.0 %	2.61E-08 0.05%	4.99E-06 0.29%	0.0 0.0 %	0.0 0.0 %
TOTAL	1.98E-04	3.41E-04	5.96E-04	1.63E-04	5.45E-05	1.73E-03	1.55E-05	0.0

COOPER NUCLEAR STATION : FOURTH QUARTERLY PERIOD 1981 : COMBINED RELEASE
NEPA ANNUAL INTEGRATED POPULATION DOSE SUMMARY (MANREM)
PATH TOTAL*

NUCLIDE	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
KR 85	1.95E-04 0.09%	1.95E-04 0.09%	1.95E-04 0.09%	1.95E-04 0.09%	1.95E-04 0.09%	1.95E-04 0.08%	6.49E-04 0.28%	3.27E-02 5.38%
KR 85M	4.51E-03 2.02%	4.51E-03 2.03%	4.51E-03 1.98%	4.51E-03 2.03%	4.51E-03 2.03%	4.51E-03 1.76%	4.66E-03 2.04%	1.65E-02 2.71%
KR 87	1.10E-02 4.91%	1.10E-02 4.93%	1.10E-02 4.82%	1.10E-02 4.93%	1.10E-02 4.94%	1.10E-02 4.28%	1.13E-02 4.96%	4.87E-02 8.00%
KR 88	9.41E-02 42.19%	9.41E-02 42.38%	9.41E-02 41.38%	9.41E-02 42.31%	9.41E-02 42.44%	9.41E-02 36.78%	9.45E-02 41.39%	1.38E-01 22.74%
XE133	5.59E-02 25.05%	5.59E-02 25.16%	5.59E-02 24.57%	5.59E-02 25.12%	5.59E-02 25.20%	5.59E-02 21.84%	5.99E-02 26.21%	1.91E-01 31.35%
XE135	5.19E-02 23.27%	5.19E-02 23.38%	5.19E-02 22.82%	5.19E-02 23.33%	5.19E-02 23.41%	5.19E-02 20.28%	5.33E-02 23.34%	1.68E-01 27.58%
XE135M	1.68E-04 0.08%	1.68E-04 0.08%	1.68E-04 0.07%	1.68E-04 0.08%	1.68E-04 0.08%	1.68E-04 0.07%	1.69E-04 0.07%	2.77E-04 0.05%
XE138	2.17E-03 0.97%	2.17E-03 0.98%	2.17E-03 0.95%	2.17E-03 0.98%	2.17E-03 0.98%	2.17E-03 0.85%	2.19E-03 0.96%	4.54E-03 0.75%
KR 89	1.18E-05 0.0 %	1.18E-05 0.0 %	1.18E-05 0.0 %	1.18E-05 0.0 %	1.18E-05 0.0 %	1.18E-05 0.0 %	1.20E-05 0.0 %	2.80E-05 0.0 %
KR 83M	4.69E-08 0.0 %	4.69E-08 0.0 %	4.69E-08 0.0 %	4.69E-08 0.0 %	4.69E-08 0.0 %	4.69E-08 0.0 %	3.66E-06 0.0 %	1.33E-05 0.0 %
XE137	3.28E-06 0.0 %	3.28E-06 0.0 %	3.28E-06 0.0 %	3.28E-06 0.0 %	3.28E-06 0.0 %	3.28E-06 0.0 %	3.85E-06 0.0 %	6.02E-05 0.0 %
XE133M	7.40E-04 0.33%	7.40E-04 0.33%	7.40E-04 0.33%	7.40E-04 0.33%	7.40E-04 0.33%	7.40E-04 0.29%	8.26E-04 0.36%	6.93E-03 1.14%
XE131M	9.65E-05 0.04%	9.65E-05 0.04%	9.65E-05 0.04%	9.65E-05 0.04%	9.65E-05 0.04%	9.65E-05 0.04%	1.20E-04 0.05%	1.19E-03 0.19%
I 131	5.71E-05 0.03%	1.86E-05 0.0 %	8.29E-05 0.04%	1.01E-04 0.05%	1.69E-04 0.08%	3.24E-02 12.67%	4.61E-07 0.0 %	5.60E-07 0.0 %
I 133	1.08E-06 0.0 %	1.68E-06 0.0 %	1.87E-06 0.0 %	2.69E-06 0.0 %	4.42E-06 0.0 %	3.82E-04 0.15%	2.85E-07 0.0 %	3.46E-07 0.0 %
SR 89	1.36E-05 0.0 %	4.72E-05 0.02%	4.76E-04 0.21%	1.08E-10 0.0 %	1.08E-10 0.0 %	1.08E-10 0.0 %	3.21E-06 0.0 %	1.26E-10 0.0 %
SR 90	1.17E-03 0.53%	1.12E-04 0.05%	4.79E-03 2.11%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	8.38E-06 0.0 %	0.0 0.0 %
CS134	2.73E-04 0.12%	2.57E-05 0.01%	2.50E-04 0.11%	4.88E-04 0.22%	1.69E-04 0.08%	2.00E-05 0.0 %	7.19E-05 0.03%	2.33E-05 0.0 %
CS137	2.96E-04 0.13%	5.45E-05 0.02%	5.67E-04 0.25%	6.53E-04 0.29%	2.49E-04 0.11%	4.64E-05 0.02%	1.18E-04 0.05%	5.41E-05 0.0 %
BA140	5.46E-06 0.0 %	1.04E-04 0.05%	7.77E-05 0.03%	7.48E-07 0.0 %	6.93E-07 0.0 %	6.65E-07 0.0 %	2.06E-05 0.0 %	7.60E-07 0.0 %
I 131	3.11E-06 0.0 %	1.01E-06 0.0 %	4.51E-06 0.0 %	5.47E-06 0.0 %	9.20E-06 0.0 %	1.76E-03 0.69%	2.55E-08 0.0 %	3.09E-08 0.0 %
CO 58	2.70E-07 0.0 %	1.34E-06 0.0 %	7.51E-08 0.0 %	1.55E-07 0.0 %	7.51E-08 0.0 %	7.51E-08 0.0 %	1.89E-07 0.0 %	8.80E-08 0.0 %
CO 60	4.96E-04 0.22%	9.23E-04 0.42%	4.13E-04 0.18%	4.48E-04 0.20%	4.13E-04 0.19%	4.13E-04 0.16%	4.84E-04 0.21%	4.86E-04 0.08%
MN 54	6.52E-06 0.0 %	1.78E-05 0.0 %	5.29E-06 0.0 %	1.10E-05 0.0 %	6.95E-06 0.0 %	5.29E-06 0.0 %	8.48E-06 0.0 %	6.20E-06 0.0 %
I 131	1.74E-07 0.0 %	5.67E-08 0.0 %	2.53E-07 0.0 %	3.06E-07 0.0 %	5.15E-07 0.0 %	9.88E-05 0.04%	1.40E-09 0.0 %	1.70E-09 0.0 %
TOTAL	2.23E-01	2.22E-01	2.27E-01	2.22E-01	2.22E-01	2.56E-01	2.28E-01	6.08E-01

COOPER NUCLEAR STATION : SECOND SEMI-ANNUAL PERIOD 1981 : COMBINED RELEASE
NEPA ANNUAL INTEGRATED POPULATION DOSE SUMMARY (MANREM)

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	2.65E-01 98.01%	2.65E-01 98.57%	2.65E-01 95.78%	2.65E-01 97.82%	2.65E-01 98.73%	2.65E-01 72.98%	2.74E-01 99.14%	7.61E-01 99.75%
GROUND	1.64E-03 0.61%	1.64E-03 0.61%	1.64E-03 0.59%	1.64E-03 0.61%	1.64E-03 0.61%	1.64E-03 0.45%	1.64E-03 0.59%	1.93E-03 0.25%
INHAL	1.60E-05 0.01%	1.88E-05 0.01%	1.08E-04 0.04%	1.82E-05 0.01%	1.37E-05 0.01%	1.27E-03 0.35%	3.03E-04 0.11%	0.0 0.0 %
VEGET	1.94E-03 0.72%	9.59E-04 0.36%	6.63E-03 2.40%	1.23E-03 0.45%	5.11E-04 0.19%	2.91E-02 8.01%	1.24E-04 0.05%	0.0 0.0 %
COW MILK	1.25E-03 0.46%	1.88E-04 0.07%	2.56E-03 0.93%	2.44E-03 0.90%	1.05E-03 0.39%	6.12E-02 16.88%	2.58E-04 0.09%	0.0 0.0 %
MEAT	5.26E-04 0.19%	1.05E-03 0.39%	7.39E-04 0.27%	5.67E-04 0.21%	1.87E-04 0.07%	4.81E-03 1.33%	5.53E-05 0.02%	0.0 0.0 %
TOTAL	2.70E-01	2.69E-01	2.77E-01	2.71E-01	2.68E-01	3.63E-01	2.76E-01	7.63E-01

COOPER NUCLEAR STATION : SECOND SEMI-ANNUAL PERIOD 1981 : COMBINED RELEASE
NEPA ANNUAL INTEGRATED POPULATION DOSE SUMMARY (MANREM)
PATHWAY = PLUME

NUCLIDE	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
KR 85	4.26E-04 0.16%	4.26E-04 0.16%	4.26E-04 0.16%	4.26E-04 0.16%	4.26E-04 0.16%	4.26E-04 0.16%	1.42E-03 0.52%	7.15E-02 9.39%
KR 85M	6.10E-03 2.30%	6.10E-03 2.30%	6.10E-03 2.30%	6.10E-03 2.30%	6.10E-03 2.30%	6.10E-03 2.30%	6.31E-03 2.30%	2.24E-02 2.94%
KR 87	1.30E-02 4.89%	1.30E-02 4.89%	1.30E-02 4.89%	1.30E-02 4.89%	1.30E-02 4.89%	1.30E-02 4.89%	1.34E-02 4.90%	5.76E-02 7.57%
KR 88	1.13E-01 42.74%	1.13E-01 42.74%	1.13E-01 42.74%	1.13E-01 42.74%	1.13E-01 42.74%	1.13E-01 42.74%	1.14E-01 41.55%	1.66E-01 21.87%
XE133	6.75E-02 25.50%	6.75E-02 25.50%	6.75E-02 25.50%	6.75E-02 25.50%	6.75E-02 25.50%	6.75E-02 25.50%	7.23E-02 26.44%	2.31E-01 30.30%
XE135	6.09E-02 22.98%	6.09E-02 22.98%	6.09E-02 22.98%	6.09E-02 22.98%	6.09E-02 22.98%	6.09E-02 22.98%	6.25E-02 22.84%	1.97E-01 25.85%
XE135M	1.98E-04 0.07%	1.98E-04 0.07%	1.98E-04 0.07%	1.98E-04 0.07%	1.98E-04 0.07%	1.98E-04 0.07%	1.99E-04 0.07%	3.27E-04 0.04%
XE138	2.55E-03 0.96%	2.55E-03 0.96%	2.55E-03 0.96%	2.55E-03 0.96%	2.55E-03 0.96%	2.55E-03 0.96%	2.58E-03 0.94%	5.35E-03 0.70%
KR 89	1.20E-05 0.0 %	1.20E-05 0.0 %	1.20E-05 0.0 %	1.20E-05 0.0 %	1.20E-05 0.0 %	1.20E-05 0.0 %	1.21E-05 0.0 %	2.84E-05 0.0 %
KR 83M	5.54E-08 0.0 %	5.54E-08 0.0 %	5.54E-08 0.0 %	5.54E-08 0.0 %	5.54E-08 0.0 %	5.54E-08 0.0 %	4.32E-06 0.0 %	1.57E-05 0.0 %
XE137	3.36E-06 0.0 %	3.36E-06 0.0 %	3.36E-06 0.0 %	3.36E-06 0.0 %	3.36E-06 0.0 %	3.36E-06 0.0 %	3.94E-06 0.0 %	6.17E-05 0.0 %
XE133M	8.65E-04 0.33%	8.65E-04 0.33%	8.65E-04 0.33%	8.65E-04 0.33%	8.65E-04 0.33%	8.65E-04 0.33%	9.65E-04 0.35%	8.10E-03 1.06%
XE131M	1.59E-04 0.06%	1.59E-04 0.06%	1.59E-04 0.06%	1.59E-04 0.06%	1.59E-04 0.06%	1.59E-04 0.06%	1.97E-04 0.07%	1.95E-03 0.26%
TOTAL	2.65E-01	2.65E-01	2.65E-01	2.65E-01	2.65E-01	2.65E-01	2.74E-01	7.61E-01

COOPER NUCLEAR STATION : SECOND SEMI-ANNUAL PERIOD 1981 : COMBINED RELEASE
NEPA ANNUAL INTEGRATED POPULATION DOSE SUMMARY (MANREM)
PATHWAY = GROUND

NUCLIDE	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
I 131	1.34E-06 0.08%	1.34E-06 0.08%	1.34E-06 0.08%	1.34E-06 0.08%	1.34E-06 0.08%	1.34E-06 0.08%	1.34E-06 0.08%	1.63E-06 0.08%
I 133	7.57E-07 0.05%	7.57E-07 0.05%	7.57E-07 0.05%	7.57E-07 0.05%	7.57E-07 0.05%	7.57E-07 0.05%	7.57E-07 0.05%	9.20E-07 0.05%
SR 89	1.77E-10 0.0 %	1.77E-10 0.0 %	1.77E-10 0.0 %	1.77E-10 0.0 %	1.77E-10 0.0 %	1.77E-10 0.0 %	1.77E-10 0.0 %	2.06E-10 0.0 %
CS134	6.60E-05 4.02%	6.60E-05 4.02%	6.60E-05 4.02%	6.60E-05 4.02%	6.60E-05 4.02%	6.60E-05 4.02%	6.60E-05 4.02%	7.70E-05 3.99%
CS137	1.87E-04 11.36%	1.87E-04 11.36%	1.87E-04 11.36%	1.87E-04 11.36%	1.87E-04 11.36%	1.87E-04 11.36%	1.87E-04 11.36%	2.18E-04 11.28%
BA140	1.45E-06 0.09%	1.45E-06 0.09%	1.45E-06 0.09%	1.45E-06 0.09%	1.45E-06 0.09%	1.45E-06 0.09%	1.45E-06 0.09%	1.65E-06 0.09%
I 131	2.53E-08 0.0 %	2.53E-08 0.0 %	2.53E-08 0.0 %	2.53E-08 0.0 %	2.53E-08 0.0 %	2.53E-08 0.0 %	2.53E-08 0.0 %	3.07E-08 0.0 %
CO 58	3.26E-07 0.02%	3.26E-07 0.02%	3.26E-07 0.02%	3.26E-07 0.02%	3.26E-07 0.02%	3.26E-07 0.02%	3.26E-07 0.02%	3.82E-07 0.02%
CO 60	1.37E-03 83.35%	1.37E-03 83.35%	1.37E-03 83.35%	1.37E-03 83.35%	1.37E-03 83.35%	1.37E-03 83.35%	1.37E-03 83.35%	1.61E-03 83.46%
MN 54	1.70E-05 1.04%	1.70E-05 1.04%	1.70E-05 1.04%	1.70E-05 1.04%	1.70E-05 1.04%	1.70E-05 1.04%	1.70E-05 1.04%	2.00E-05 1.04%
I 131	4.23E-09 0.0 %	4.23E-09 0.0 %	4.23E-09 0.0 %	4.23E-09 0.0 %	4.23E-09 0.0 %	4.23E-09 0.0 %	4.23E-09 0.0 %	5.14E-09 0.0 %
I 131	2.55E-08 0.0 %	2.55E-08 0.0 %	2.55E-08 0.0 %	2.55E-08 0.0 %	2.55E-08 0.0 %	2.55E-08 0.0 %	2.55E-08 0.0 %	3.09E-08 0.0 %
I 131	1.40E-09 0.0 %	1.40E-09 0.0 %	1.40E-09 0.0 %	1.40E-09 0.0 %	1.40E-09 0.0 %	1.40E-09 0.0 %	1.40E-09 0.0 %	1.70E-09 0.0 %
TOTAL	1.64E-03	1.64E-03	1.64E-03	1.64E-03	1.64E-03	1.64E-03	1.64E-03	1.93E-03

COOPER NUCLEAR STATION : SECOND SEMI-ANNUAL PERIOD 1981 : COMBINED RELEASE
NEPA ANNUAL INTEGRATED POPULATION DOSE SUMMARY (MANREM)
PATHWAY = INHAL

NUCLIDE	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
I 131	1.25E-06 7.79%	3.18E-07 1.69%	1.70E-06 1.57%	2.20E-06 12.09%	3.74E-06 27.24%	7.26E-04 57.03%	0.0 0.0 %	0.0 0.0 %
I 133	1.02E-06 6.38%	1.63E-06 8.67%	2.03E-06 1.87%	3.18E-06 17.45%	5.50E-06 40.04%	4.92E-04 38.67%	0.0 0.0 %	0.0 0.0 %
SR 89	3.19E-08 0.20%	9.54E-07 5.07%	1.11E-06 1.02%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	4.92E-06 1.62%	0.0 0.0 %
SR 90	5.81E-06 36.27%	6.15E-07 3.27%	9.39E-05 86.56%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	1.05E-05 3.48%	0.0 0.0 %
CS134	3.39E-06 21.18%	5.03E-08 0.27%	2.40E-06 2.22%	4.99E-06 27.40%	1.67E-06 12.20%	0.0 0.0 %	5.89E-07 0.19%	0.0 0.0 %
CS137	3.68E-06 22.95%	7.69E-08 0.41%	5.87E-06 5.41%	6.95E-06 38.13%	2.47E-06 17.96%	0.0 0.0 %	8.69E-07 0.29%	0.0 0.0 %
BA140	8.52E-08 0.53%	5.66E-06 30.06%	1.34E-06 1.24%	1.53E-09 0.0 %	5.18E-10 0.0 %	0.0 0.0 %	4.10E-05 13.53%	0.0 0.0 %
I 131	4.48E-08 0.28%	1.14E-08 0.06%	6.11E-08 0.06%	7.91E-08 0.43%	1.34E-07 0.98%	2.61E-05 2.05%	0.0 0.0 %	0.0 0.0 %
CO 58	1.09E-09 0.0 %	4.27E-08 0.23%	0.0 0.0 %	7.75E-10 0.0 %	0.0 0.0 %	0.0 0.0 %	4.66E-07 0.15%	0.0 0.0 %
CO 60	6.08E-07 3.80%	9.00E-06 47.79%	0.0 0.0 %	4.43E-07 2.43%	0.0 0.0 %	0.0 0.0 %	2.35E-04 77.35%	0.0 0.0 %
MN 54	4.88E-08 0.30%	4.56E-07 2.42%	0.0 0.0 %	2.85E-07 1.56%	7.00E-08 0.51%	0.0 0.0 %	1.03E-05 3.39%	0.0 0.0 %
I 131	3.00E-09 0.02%	7.62E-10 0.0 %	4.08E-09 0.0 %	5.29E-09 0.03%	8.97E-09 0.07%	1.74E-06 0.14%	0.0 0.0 %	0.0 0.0 %
I 131	4.51E-08 0.28%	1.15E-08 0.06%	6.15E-08 0.06%	7.96E-08 0.44%	1.35E-07 0.98%	2.62E-05 2.06%	0.0 0.0 %	0.0 0.0 %
I 131	1.08E-09 0.0 %	2.73E-10 0.0 %	1.46E-09 0.0 %	1.90E-09 0.01%	3.22E-09 0.02%	6.25E-07 0.05%	0.0 0.0 %	0.0 0.0 %
TOTAL	1.60E-05	1.88E-05	1.08E-04	1.82E-05	1.37E-05	1.27E-03	3.03E-04	0.0

COOPER NUCLEAR STATION : SECOND SEMI-ANNUAL PERIOD 1981 ; COMBINED RELEASE
NEPA ANNUAL INTEGRATED POPULATION DOSE SUMMARY (MANREM)
PATHWAY = VEGET

NUCLIDE	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
I 131	4.88E-05 2.51%	1.63E-05 1.70%	7.00E-05 1.06%	8.62E-05 7.00%	1.45E-04 28.43%	2.79E-02 96.05%	0.0 0.0 %	0.0 0.0 %
I 133	3.63E-10 0.0 %	7.51E-10 0.0 %	7.26E-10 0.0 %	1.09E-09 0.0 %	1.87E-09 0.0 %	1.75E-07 0.0 %	0.0 0.0 %	0.0 0.0 %
SR 89	1.85E-05 0.95%	6.34E-05 6.61%	6.46E-04 9.73%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
SR 90	1.25E-03 64.18%	1.19E-04 12.41%	5.02E-03 75.68%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
CS134	2.33E-04 11.98%	5.25E-06 0.55%	2.05E-04 3.08%	4.19E-04 34.08%	1.33E-04 26.06%	0.0 0.0 %	4.64E-05 37.32%	0.0 0.0 %
CS137	2.81E-04 14.49%	9.14E-06 0.95%	5.66E-04 8.53%	6.65E-04 54.03%	2.22E-04 43.46%	0.0 0.0 %	7.78E-05 62.62%	0.0 0.0 %
BA140	7.73E-06 0.40%	1.60E-04 16.65%	1.24E-04 1.88%	1.34E-07 0.01%	4.48E-08 0.0 %	0.0 0.0 %	7.97E-08 0.06%	0.0 0.0 %
I 131	8.70E-07 0.04%	2.90E-07 0.03%	1.25E-06 0.02%	1.54E-06 0.12%	2.59E-06 0.51%	4.98E-04 1.71%	0.0 0.0 %	0.0 0.0 %
CO 58	3.48E-07 0.02%	1.99E-06 0.21%	0.0 0.0 %	1.38E-07 0.01%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
CO 60	1.01E-04 5.19%	5.50E-04 57.34%	0.0 0.0 %	4.09E-05 3.32%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
MN 54	3.34E-06 0.17%	3.36E-05 3.51%	0.0 0.0 %	1.54E-05 1.25%	4.49E-06 0.88%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
I 131	1.53E-07 0.0 %	5.11E-09 0.0 %	2.20E-07 0.0 %	2.70E-07 0.02%	4.56E-07 0.09%	8.77E-05 0.30%	0.0 0.0 %	0.0 0.0 %
I 131	9.32E-07 0.05%	3.11E-07 0.03%	1.34E-06 0.02%	1.65E-06 0.13%	2.78E-06 0.54%	5.33E-04 1.83%	0.0 0.0 %	0.0 0.0 %
I 131	5.27E-08 0.0 %	1.76E-08 0.0 %	7.56E-08 0.0 %	9.30E-08 0.0 %	1.57E-07 0.03%	3.01E-05 0.10%	0.0 0.0 %	0.0 0.0 %
TOTAL	1.94E-03	9.59E-04	6.63E-03	1.23E-03	5.11E-04	2.91E-02	1.24E-04	0.0

COOPER NUCLEAR STATION : SECOND SEMI-ANNUAL PERIOD 1981 : COMBINED RELEASE
NEPA ANNUAL INTEGRATED POPULATION DOSE SUMMARY (MANREM)
PATHWAY = COW MILK

NUCLIDE	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
I 131	1.02E-04	3.16E-05	1.51E-04	1.80E-04	3.04E-04	5.84E-02	0.0	0.0
	8.14%	16.74%	5.89%	7.39%	28.79%	95.30%	0.0 %	0.0 %
I 133	9.89E-07	1.90E-06	2.00E-06	2.92E-06	5.00E-06	4.78E-04	0.0	0.0
	0.08%	1.01%	0.08%	0.12%	0.47%	0.78%	0.0 %	0.0 %
SR 89	2.55E-06	7.92E-06	8.93E-05	0.0	0.0	0.0	0.0	0.0
	0.20%	4.20%	3.49%	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %
SR 90	1.65E-04	1.49E-05	6.61E-04	0.0	0.0	0.0	0.0	0.0
	13.13%	7.92%	25.85%	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %
CS134	4.39E-04	1.01E-05	4.36E-04	8.70E-04	2.76E-04	0.0	9.68E-05	0.0
	35.00%	5.34%	17.06%	35.66%	26.15%	0.0 %	37.46%	0.0 %
CS137	5.22E-04	1.74E-05	1.20E-03	1.37E-03	4.57E-04	0.0	1.62E-04	0.0
	41.63%	9.24%	46.90%	56.20%	43.38%	0.0 %	62.54%	0.0 %
BA140	7.77E-07	1.47E-05	1.26E-05	1.32E-08	4.41E-09	0.0	7.92E-09	0.0
	0.06%	7.77%	0.49%	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %
I 131	1.82E-06	5.63E-07	2.68E-06	3.22E-06	5.41E-06	1.04E-03	0.0	0.0
	0.15%	0.30%	0.10%	0.13%	0.51%	1.70%	0.0 %	0.0 %
CO 58	5.85E-08	3.02E-07	0.0	2.26E-08	0.0	0.0	0.0	0.0
	0.0 %	0.16%	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %
CO 60	1.77E-05	8.71E-05	0.0	7.03E-06	0.0	0.0	0.0	0.0
	1.41%	46.23%	0.0 %	0.29%	0.0 %	0.0 %	0.0 %	0.0 %
MN 54	1.44E-07	1.30E-06	0.0	6.48E-07	1.88E-07	0.0	0.0	0.0
	0.01%	0.69%	0.0 %	0.03%	0.02%	0.0 %	0.0 %	0.0 %
I 131	3.20E-07	9.91E-08	4.73E-07	5.66E-07	9.53E-07	1.83E-04	0.0	0.0
	0.03%	0.05%	0.02%	0.02%	0.09%	0.30%	0.0 %	0.0 %
I 131	1.95E-06	6.03E-07	2.88E-06	3.45E-06	5.80E-06	1.11E-03	0.0	0.0
	0.16%	0.32%	0.11%	0.14%	0.55%	1.82%	0.0 %	0.0 %
I 131	1.10E-07	3.41E-08	1.63E-07	1.95E-07	3.28E-07	6.30E-05	0.0	0.0
	0.0 %	0.02%	0.0 %	0.0 %	0.03%	0.10%	0.0 %	0.0 %
TOTAL	1.25E-03	1.88E-04	2.56E-03	2.44E-03	1.05E-03	6.12E-02	2.58E-04	0.0

COOPER NUCLEAR STATION : SECOND SEMI-ANNUAL PERIOD 1981 : COMBINED RELEASE
NEPA ANNUAL INTEGRATED POPULATION DOSE SUMMARY (MANREM)
PATHWAY = MEAT

NUCLIDE	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
I 131	8.09E-06 1.54%	3.16E-06 0.30%	1.08E-05 1.46%	1.42E-05 2.51%	2.42E-05 12.93%	4.62E-03 96.05%	0.0 0.0 %	0.0 0.0 %
I 133	7.94E-13 0.0 %	1.94E-12 0.0 %	1.55E-12 0.0 %	2.48E-12 0.0 %	4.29E-12 0.0 %	3.83E-10 0.0 %	0.0 0.0 %	0.0 0.0 %
SR 89	9.01E-07 0.17%	3.89E-06 0.37%	3.14E-05 4.25%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
SR 90	8.57E-05 16.29%	9.12E-06 0.87%	3.47E-04 46.99%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
CS134	1.29E-04 24.43%	2.83E-06 0.27%	8.71E-05 11.79%	1.91E-04 33.74%	6.13E-05 32.76%	0.0 0.0 %	2.09E-05 37.82%	0.0 0.0 %
CS137	1.56E-04 29.67%	4.84E-06 0.46%	2.37E-04 32.04%	2.97E-04 52.51%	1.00E-04 53.56%	0.0 0.0 %	3.44E-05 62.15%	0.0 0.0 %
BA140	1.60E-06 0.30%	4.04E-05 3.85%	2.51E-05 3.40%	2.90E-08 0.0 %	9.78E-09 0.0 %	0.0 0.0 %	1.70E-08 0.03%	0.0 0.0 %
I 131	1.44E-07 0.03%	5.64E-08 0.0 %	1.93E-07 0.03%	2.54E-07 0.04%	4.31E-07 0.23%	8.24E-05 1.71%	0.0 0.0 %	0.0 0.0 %
CO 58	4.10E-07 0.08%	2.94E-06 0.28%	0.0 0.0 %	1.71E-07 0.03%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
CO 60	1.44E-04 27.40%	9.78E-04 93.25%	0.0 0.0 %	6.16E-05 10.86%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
MN 54	2.81E-07 0.05%	3.56E-06 0.34%	0.0 0.0 %	1.37E-06 0.24%	4.05E-07 0.22%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
I 131	2.54E-08 0.0 %	9.93E-09 0.0 %	3.39E-08 0.0 %	4.46E-08 0.0 %	7.59E-08 0.04%	1.45E-05 0.30%	0.0 0.0 %	0.0 0.0 %
I 131	1.54E-07 0.03%	6.04E-08 0.0 %	2.06E-07 0.03%	2.72E-07 0.05%	4.62E-07 0.25%	8.83E-05 1.83%	0.0 0.0 %	0.0 0.0 %
I 131	8.73E-09 0.0 %	3.41E-09 0.0 %	1.17E-08 0.0 %	1.54E-08 0.0 %	2.61E-08 0.01%	4.99E-06 0.10%	0.0 0.0 %	0.0 0.0 %
TOTAL	5.26E-04	1.05E-03	7.39E-04	5.67E-04	1.87E-04	4.81E-03	5.53E-05	0.0

COOPER NUCLEAR STATION : SECOND SEMI-ANNUAL PERIOD 1981 : COMBINED RELEASE
NEPA ANNUAL INTEGRATED POPULATION DOSE SUMMARY (MANREM)
PATHWAY = *TOTAL*

NUCLIDE	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
KR 85	4.26E-04 0.16%	4.26E-04 0.16%	4.26E-04 0.15%	4.26E-04 0.16%	4.26E-04 0.16%	4.26E-04 0.12%	1.42E-03 0.51%	7.15E-02 9.37%
KR 85M	6.10E-03 2.26%	6.10E-03 2.27%	6.10E-03 2.21%	6.10E-03 2.25%	6.10E-03 2.28%	6.10E-03 1.68%	6.31E-03 2.29%	2.24E-02 2.93%
KR 87	1.30E-02 4.79%	1.30E-02 4.82%	1.30E-02 4.68%	1.30E-02 4.78%	1.30E-02 4.83%	1.30E-02 3.57%	1.34E-02 4.85%	5.76E-02 7.55%
KR 88	1.13E-01 41.89%	1.13E-01 42.13%	1.13E-01 40.93%	1.13E-01 41.81%	1.13E-01 42.20%	1.13E-01 31.19%	1.14E-01 41.19%	1.66E-01 21.82%
XE133	6.75E-02 24.99%	6.75E-02 25.13%	6.75E-02 24.42%	6.75E-02 24.94%	6.75E-02 25.17%	6.75E-02 18.61%	7.23E-02 26.21%	2.31E-01 30.22%
XE135	6.09E-02 22.52%	6.09E-02 22.65%	6.09E-02 22.01%	6.09E-02 22.48%	6.09E-02 22.69%	6.09E-02 16.77%	6.25E-02 22.64%	1.97E-01 25.79%
XE135M	1.98E-04 0.07%	1.98E-04 0.07%	1.98E-04 0.07%	1.98E-04 0.07%	1.98E-04 0.07%	1.98E-04 0.05%	1.99E-04 0.07%	3.27E-04 0.04%
XE138	2.55E-03 0.95%	2.55E-03 0.95%	2.55E-03 0.92%	2.55E-03 0.94%	2.55E-03 0.95%	2.55E-03 0.70%	2.58E-03 0.94%	5.35E-03 0.70%
KR 89	1.20E-05 0.0 %	1.20E-05 0.0 %	1.20E-05 0.0 %	1.20E-05 0.0 %	1.20E-05 0.0 %	1.20E-05 0.0 %	1.21E-05 0.0 %	2.84E-05 0.0 %
KR 89M	5.54E-08 0.0 %	5.54E-08 0.0 %	5.54E-08 0.0 %	5.54E-08 0.0 %	5.54E-08 0.0 %	5.54E-08 0.0 %	4.32E-06 0.0 %	1.57E-05 0.0 %
XE137	3.36E-06 0.0 %	3.36E-06 0.0 %	3.36E-06 0.0 %	3.36E-06 0.0 %	3.36E-06 0.0 %	3.36E-06 0.0 %	3.94E-06 0.0 %	6.17E-05 0.0 %
XE133M	8.65E-04 0.32%	8.65E-04 0.32%	8.65E-04 0.31%	8.65E-04 0.32%	8.65E-04 0.32%	8.65E-04 0.24%	9.65E-04 0.35%	8.10E-03 1.06%
XE131M	1.59E-04 0.06%	1.59E-04 0.06%	1.59E-04 0.06%	1.59E-04 0.06%	1.59E-04 0.06%	1.59E-04 0.04%	1.97E-04 0.07%	1.95E-03 0.26%
I 131	1.61E-04 0.06%	5.26E-05 0.02%	2.34E-04 0.08%	2.84E-04 0.11%	4.78E-04 0.18%	9.16E-02 25.25%	1.34E-06 0.0 %	1.63E-06 0.0 %
I 133	2.77E-06 0.0 %	4.29E-06 0.0 %	4.78E-06 0.0 %	6.86E-06 0.0 %	1.13E-05 0.0 %	9.72E-04 0.27%	7.57E-07 0.0 %	9.20E-07 0.0 %
SR 89	2.20E-05 0.0 %	7.62E-05 0.03%	7.67E-04 0.28%	1.77E-10 0.0 %	1.77E-10 0.0 %	1.77E-10 0.0 %	4.92E-06 0.0 %	2.06E-10 0.0 %
SR 90	1.50E-03 0.56%	1.44E-04 0.05%	6.12E-03 2.21%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	1.05E-05 0.0 %	0.0 0.0 %
CS134	8.49E-04 0.32%	8.42E-05 0.03%	7.96E-04 0.29%	1.55E-03 0.57%	5.38E-04 0.20%	6.60E-05 0.02%	2.31E-04 0.08%	7.70E-05 0.01%
CS137	1.15E-03 0.43%	2.18E-04 0.08%	2.20E-03 0.79%	2.53E-03 0.93%	9.69E-04 0.36%	1.87E-04 0.05%	4.61E-04 0.17%	2.18E-04 0.03%
BA140	1.16E-05 0.0 %	2.22E-04 0.08%	1.65E-04 0.06%	1.62E-06 0.0 %	1.51E-06 0.0 %	1.45E-06 0.0 %	4.26E-05 0.02%	1.65E-06 0.0 %
I 131	2.90E-06 0.0 %	9.46E-07 0.0 %	4.21E-06 0.0 %	5.11E-06 0.0 %	8.59E-06 0.0 %	1.65E-03 0.45%	2.53E-08 0.0 %	3.07E-08 0.0 %
CO 58	1.14E-06 0.0 %	5.60E-06 0.0 %	3.26E-07 0.0 %	6.59E-07 0.0 %	3.26E-07 0.0 %	3.26E-07 0.0 %	7.93E-07 0.0 %	3.42E-07 0.0 %
CO 60	1.63E-03 0.60%	2.99E-03 1.11%	1.37E-03 0.50%	1.48E-03 0.55%	1.37E-03 0.51%	1.37E-03 0.38%	1.60E-03 0.58%	1.61E-03 0.21%
MN 54	2.09E-05 0.0 %	5.60E-05 0.02%	1.70E-05 0.0 %	3.47E-05 0.01%	2.22E-05 0.0 %	1.70E-05 0.0 %	2.73E-05 0.0 %	2.00E-05 0.0 %
I 131	5.06E-07 0.0 %	1.65E-07 0.0 %	7.35E-07 0.0 %	8.91E-07 0.0 %	1.50E-06 0.0 %	2.87E-04 0.08%	4.23E-09 0.0 %	5.14E-09 0.0 %
I 131	3.11E-06 0.0 %	1.01E-06 0.0 %	4.51E-06 0.0 %	5.47E-06 0.0 %	9.20E-06 0.0 %	1.76E-03 0.49%	2.55E-08 0.0 %	3.09E-08 0.0 %
I 131	1.74E-07 0.0 %	5.67E-08 0.0 %	2.53E-07 0.0 %	3.06E-07 0.0 %	5.15E-07 0.0 %	9.88E-05 0.03%	1.40E-09 0.0 %	1.70E-09 0.0 %
TOTAL	2.70E-01	2.69E-01	2.77E-01	2.71E-01	2.68E-01	3.63E-01	2.76E-01	7.63E-01

COOPER NUCLEAR STATION : ANNUAL PERIOD 1981 : COMBINED RELEASE
NEPA ANNUAL INTEGRATED POPULATION DOSE SUMMARY (MANREM)

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	6.65E-01 98.38%	6.65E-01 98.57%	6.65E-01 97.04%	6.65E-01 98.07%	6.65E-01 98.80%	6.65E-01 70.60%	6.90E-01 99.20%	2.59E+00 99.82%
GROUND	4.01E-03 0.59%	4.01E-03 0.59%	4.01E-03 0.58%	4.01E-03 0.59%	4.01E-03 0.60%	4.01E-03 0.43%	4.01E-03 0.58%	4.71E-03 0.18%
INHAL	2.82E-05 0.00%	4.06E-05 0.01%	1.55E-04 0.02%	3.60E-05 0.01%	2.85E-05 0.00%	3.12E-03 0.33%	6.84E-04 0.10%	0.0 0.0 %
VEGET	3.23E-03 0.48%	2.34E-03 0.35%	1.00E-02 1.47%	2.63E-03 0.39%	1.18E-03 0.18%	8.27E-02 8.78%	2.47E-04 0.04%	0.0 0.0 %
COW MILK	2.59E-03 0.38%	5.11E-04 0.08%	4.81E-03 0.70%	5.17E-03 0.76%	2.46E-03 0.36%	1.74E-01 18.42%	5.15E-04 0.07%	0.0 0.0 %
MEAT	1.13E-03 0.17%	2.75E-03 0.41%	1.28E-03 0.19%	1.25E-03 0.18%	4.41E-04 0.07%	1.37E-02 1.45%	1.10E-04 0.02%	0.0 0.0 %
TOTAL	6.76E-01	6.75E-01	6.85E-01	6.78E-01	6.73E-01	9.42E-01	6.96E-01	2.59E+00

COOPER NUCLEAR STATION : ANNUAL PERIOD 1981 : COMBINED RELEASE
NEPA ANNUAL INTEGRATED POPULATION DOSE SUMMARY (MANREM)
PATHWAY = PLUME

NUCLIDE	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
KR 85	1.42E-03 0.21%	1.42E-03 0.21%	1.42E-03 0.21%	1.42E-03 0.21%	1.42E-03 0.21%	1.42E-03 0.21%	4.72E-03 0.68%	2.38E-01 9.19%
KR 85M	8.72E-03 1.31%	8.72E-03 1.31%	8.72E-03 1.31%	8.72E-03 1.31%	8.72E-03 1.31%	8.72E-03 1.31%	9.01E-03 1.31%	3.19E-02 1.23%
KR 87	3.51E-01 52.76%	3.51E-01 52.76%	3.51E-01 52.76%	3.51E-01 52.76%	3.51E-01 52.76%	3.51E-01 52.76%	3.63E-01 52.62%	1.56E+00 60.26%
KR 88	1.39E-01 20.94%	1.39E-01 20.94%	1.39E-01 20.94%	1.39E-01 20.94%	1.39E-01 20.94%	1.39E-01 20.94%	1.40E-01 20.28%	2.05E-01 7.91%
XE133	8.72E-02 13.10%	8.72E-02 13.10%	8.72E-02 13.10%	8.72E-02 13.10%	8.72E-02 13.10%	8.72E-02 13.10%	9.34E-02 13.54%	2.98E-01 11.50%
XE135	7.29E-02 10.96%	7.29E-02 10.96%	7.29E-02 10.96%	7.29E-02 10.96%	7.29E-02 10.96%	7.29E-02 10.96%	7.49E-02 10.85%	2.36E-01 9.10%
XE135M	2.44E-04 0.04%	2.44E-04 0.04%	2.44E-04 0.04%	2.44E-04 0.04%	2.44E-04 0.04%	2.44E-04 0.04%	2.46E-04 0.04%	4.04E-04 0.02%
XE138	3.17E-03 0.48%	3.17E-03 0.48%	3.17E-03 0.48%	3.17E-03 0.48%	3.17E-03 0.48%	3.17E-03 0.48%	3.20E-03 0.46%	6.63E-03 0.26%
KR 89	1.38E-05 0.0 %	1.38E-05 0.0 %	1.38E-05 0.0 %	1.38E-05 0.0 %	1.38E-05 0.0 %	1.38E-05 0.0 %	1.40E-05 0.0 %	3.27E-05 0.0 %
KR 89M	6.64E-08 0.0 %	6.64E-08 0.0 %	6.64E-08 0.0 %	6.64E-08 0.0 %	6.64E-08 0.0 %	6.64E-08 0.0 %	5.18E-06 0.0 %	1.88E-05 0.0 %
XE137	3.97E-06 0.0 %	3.97E-06 0.0 %	3.97E-06 0.0 %	3.97E-06 0.0 %	3.97E-06 0.0 %	3.97E-06 0.0 %	4.66E-06 0.0 %	7.30E-05 0.0 %
XE133M	1.04E-03 0.16%	1.04E-03 0.16%	1.04E-03 0.16%	1.04E-03 0.16%	1.04E-03 0.16%	1.04E-03 0.16%	1.16E-03 0.17%	9.74E-03 0.38%
XE131M	3.17E-04 0.05%	3.17E-04 0.05%	3.17E-04 0.05%	3.17E-04 0.05%	3.17E-04 0.05%	3.17E-04 0.05%	3.93E-04 0.06%	3.90E-03 0.15%
TOTAL	6.65E-01	6.65E-01	6.65E-01	6.65E-01	6.65E-01	6.65E-01	6.90E-01	2.59E+00

COOPER NUCLEAR STATION : ANNUAL PERIOD 1981 : COMBINED RELEASE
NEPA ANNUAL INTEGRATED POPULATION DOSE SUMMARY (MANREM)
PATHWAY = GROUND

NUCLIDE	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
I 131	3.71E-06 0.09%	3.71E-06 0.09%	3.71E-06 0.09%	3.71E-06 0.09%	3.71E-06 0.09%	3.71E-06 0.09%	3.71E-06 0.09%	4.50E-06 0.10%
I 133	1.10E-06 0.03%	1.10E-06 0.03%	1.10E-06 0.03%	1.10E-06 0.03%	1.10E-06 0.03%	1.10E-06 0.03%	1.10E-06 0.03%	1.38E-06 0.03%
SR 89	3.11E-10 0.0 %	3.11E-10 0.0 %	3.11E-10 0.0 %	3.11E-10 0.0 %	3.11E-10 0.0 %	3.11E-10 0.0 %	3.11E-10 0.0 %	3.60E-10 0.0 %
CS134	1.38E-04 3.43%	1.38E-04 3.43%	1.38E-04 3.43%	1.38E-04 3.43%	1.38E-04 3.43%	1.38E-04 3.43%	1.38E-04 3.43%	1.60E-04 3.41%
CS137	3.47E-04 8.66%	3.47E-04 8.66%	3.47E-04 8.66%	3.47E-04 8.66%	3.47E-04 8.66%	3.47E-04 8.66%	3.47E-04 8.66%	4.05E-04 8.59%
BA140	2.96E-06 0.07%	2.96E-06 0.07%	2.96E-06 0.07%	2.96E-06 0.07%	2.96E-06 0.07%	2.96E-06 0.07%	2.96E-06 0.07%	3.38E-06 0.07%
I 131	4.29E-08 0.0 %	4.29E-08 0.0 %	4.29E-08 0.0 %	4.29E-08 0.0 %	4.29E-08 0.0 %	4.29E-08 0.0 %	4.29E-08 0.0 %	5.21E-08 0.0 %
CO 58	6.23E-06 0.16%	6.23E-06 0.16%	6.23E-06 0.16%	6.23E-06 0.16%	6.23E-06 0.16%	6.23E-06 0.16%	6.23E-06 0.16%	7.30E-06 0.16%
CO 60	3.41E-03 85.22%	3.41E-03 85.22%	3.41E-03 85.22%	3.41E-03 85.22%	3.41E-03 85.22%	3.41E-03 85.22%	3.41E-03 85.22%	4.02E-03 85.51%
MN 54	9.05E-05 2.26%	9.05E-05 2.26%	9.05E-05 2.26%	9.05E-05 2.26%	9.05E-05 2.26%	9.05E-05 2.26%	9.05E-05 2.26%	1.06E-04 2.25%
CR 51	1.97E-07 0.0 %	1.97E-07 0.0 %	1.97E-07 0.0 %	1.97E-07 0.0 %	1.97E-07 0.0 %	1.97E-07 0.0 %	1.97E-07 0.0 %	2.33E-07 0.0 %
I 131	2.25E-09 0.0 %	2.25E-09 0.0 %	2.25E-09 0.0 %	2.25E-09 0.0 %	2.25E-09 0.0 %	2.25E-09 0.0 %	2.25E-09 0.0 %	2.73E-09 0.0 %
ZN 65	3.07E-06 0.08%	3.07E-06 0.08%	3.07E-06 0.08%	3.07E-06 0.08%	3.07E-06 0.08%	3.07E-06 0.08%	3.07E-06 0.08%	3.53E-06 0.07%
I 131	9.56E-08 0.0 %	9.56E-08 0.0 %	9.56E-08 0.0 %	9.56E-08 0.0 %	9.56E-08 0.0 %	9.56E-08 0.0 %	9.56E-08 0.0 %	1.16E-07 0.0 %
I 133	6.08E-10 0.0 %	6.08E-10 0.0 %	6.08E-10 0.0 %	6.08E-10 0.0 %	6.08E-10 0.0 %	6.08E-10 0.0 %	6.08E-10 0.0 %	7.40E-10 0.0 %
I 131	2.53E-08 0.0 %	2.53E-08 0.0 %	2.53E-08 0.0 %	2.53E-08 0.0 %	2.53E-08 0.0 %	2.53E-08 0.0 %	2.53E-08 0.0 %	3.07E-08 0.0 %
I 131	4.23E-09 0.0 %	4.23E-09 0.0 %	4.23E-09 0.0 %	4.23E-09 0.0 %	4.23E-09 0.0 %	4.23E-09 0.0 %	4.23E-09 0.0 %	5.14E-09 0.0 %
I 131	2.55E-08 0.0 %	2.55E-08 0.0 %	2.55E-08 0.0 %	2.55E-08 0.0 %	2.55E-08 0.0 %	2.55E-08 0.0 %	2.55E-08 0.0 %	3.09E-08 0.0 %
I 131	1.40E-09 0.0 %	1.40E-09 0.0 %	1.40E-09 0.0 %	1.40E-09 0.0 %	1.40E-09 0.0 %	1.40E-09 0.0 %	1.40E-09 0.0 %	1.70E-09 0.0 %
TOTAL	4.01E-03	4.01E-03	4.01E-03	4.01E-03	4.01E-03	4.01E-03	4.01E-03	4.71E-03

COOPER NUCLEAR STATION : ANNUAL PERIOD 1981 : COMBINED RELEASE
NERA ANNUAL INTEGRATED POPULATION DOSE SUMMARY (MANREM)
PATHWAY = INHAL

NUCLIDE	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
I 131	3.76E-06 13.33%	9.56E-07 2.36%	5.12E-06 5.30%	6.63E-06 18.45%	1.13E-05 39.54%	2.19E-03 70.02%	0.0 0.0 %	0.0 0.0 %
I 133	1.56E-06 5.55%	2.50E-06 6.15%	3.10E-06 2.00%	4.86E-06 13.53%	8.41E-06 29.53%	7.53E-04 24.12%	0.0 0.0 %	0.0 0.0 %
SR 89	5.68E-08 0.20%	1.70E-06 4.19%	1.98E-06 1.28%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	8.77E-06 1.28%	0.0 0.0 %
SR 90	7.87E-06 27.89%	8.32E-07 2.05%	1.27E-04 81.91%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	1.43E-05 2.09%	0.0 0.0 %
CS134	6.49E-06 23.01%	9.62E-08 0.24%	4.59E-06 2.96%	9.55E-06 26.55%	3.20E-06 11.24%	0.0 0.0 %	1.13E-06 0.16%	0.0 0.0 %
CS137	6.30E-06 22.34%	1.32E-07 0.32%	1.01E-05 6.48%	1.19E-05 33.11%	4.22E-06 14.84%	0.0 0.0 %	1.49E-06 0.22%	0.0 0.0 %
BA140	1.73E-07 0.61%	1.15E-05 28.33%	2.72E-06 1.76%	3.12E-09 0.0 %	1.05E-09 0.0 %	0.0 0.0 %	8.34E-05 12.19%	0.0 0.0 %
I 131	8.75E-08 0.31%	2.23E-08 0.05%	1.19E-07 0.08%	1.54E-07 0.43%	2.62E-07 0.92%	5.05E-05 1.65%	0.0 0.0 %	0.0 0.0 %
CO 58	1.71E-08 0.06%	6.72E-07 1.66%	0.0 0.0 %	1.22E-08 0.03%	0.0 0.0 %	0.0 0.0 %	7.33E-06 1.07%	0.0 0.0 %
CO 60	1.35E-06 4.78%	2.00E-05 49.20%	0.0 0.0 %	9.82E-07 2.73%	0.0 0.0 %	0.0 0.0 %	5.21E-04 76.07%	0.0 0.0 %
MN 54	2.16E-07 0.76%	2.01E-06 4.96%	0.0 0.0 %	1.26E-06 3.50%	3.09E-07 1.09%	0.0 0.0 %	4.54E-05 6.63%	0.0 0.0 %
CR 51	2.17E-09 0.0 %	5.51E-08 0.14%	0.0 0.0 %	0.0 0.0 %	4.58E-10 0.0 %	1.26E-09 0.0 %	2.98E-07 0.04%	0.0 0.0 %
I 131	2.58E-09 0.0 %	6.04E-10 0.0 %	3.24E-09 0.0 %	4.20E-09 0.01%	7.12E-09 0.02%	1.38E-06 0.04%	0.0 0.0 %	0.0 0.0 %
ZN 65	9.34E-08 0.33%	8.17E-08 0.20%	6.20E-08 0.04%	1.92E-07 0.54%	1.27E-07 0.44%	0.0 0.0 %	1.65E-06 0.24%	0.0 0.0 %
I 131	1.30E-07 0.46%	3.31E-08 0.08%	1.77E-07 0.11%	2.30E-07 0.64%	3.90E-07 1.37%	7.57E-05 2.43%	0.0 0.0 %	0.0 0.0 %
I 133	5.36E-10 0.0 %	8.55E-10 0.0 %	1.06E-09 0.0 %	1.67E-09 0.0 %	2.88E-09 0.01%	2.58E-07 0.0 %	0.0 0.0 %	0.0 0.0 %
I 131	4.48E-08 0.16%	1.14E-08 0.03%	6.11E-08 0.04%	7.91E-08 0.22%	1.34E-07 0.47%	2.61E-05 0.83%	0.0 0.0 %	0.0 0.0 %
I 131	3.00E-09 0.01%	7.62E-10 0.0 %	4.08E-09 0.0 %	5.29E-09 0.01%	8.97E-09 0.03%	1.74E-06 0.06%	0.0 0.0 %	0.0 0.0 %
I 131	4.51E-08 0.16%	1.15E-08 0.03%	6.15E-08 0.04%	7.96E-08 0.22%	1.35E-07 0.47%	2.62E-05 0.84%	0.0 0.0 %	0.0 0.0 %
I 131	1.08E-09 0.0 %	2.73E-10 0.0 %	1.46E-09 0.0 %	1.90E-09 0.0 %	3.22E-09 0.01%	6.25E-07 0.02%	0.0 0.0 %	0.0 0.0 %
TOTAL	2.82E-05	4.06E-05	1.55E-04	3.60E-05	2.85E-05	3.12E-03	6.84E-04	0.0

COOPER NUCLEAR STATION : ANNUAL PERIOD 1981 : COMBINED RELEASE
NEPA ANNUAL INTEGRATED POPULATION DOSE SUMMARY (MANREM)
PATHWAY = VEGET

NUCLIDE	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
I 131	1.37E-04 4.25%	4.58E-05 1.96%	1.97E-04 1.96%	2.42E-04 9.21%	4.09E-04 34.72%	7.86E-02 95.01%	0.0 0.0 %	0.0 0.0 %
I 133	5.39E-10 0.0 %	1.12E-09 0.0 %	1.08E-09 0.0 %	1.62E-09 0.0 %	2.78E-09 0.0 %	2.60E-07 0.0 %	0.0 0.0 %	0.0 0.0 %
SR 89	3.36E-05 1.04%	1.15E-04 4.92%	1.17E-03 11.67%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
SR 90	1.71E-03 52.86%	1.63E-04 6.97%	6.88E-03 68.49%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
CS134	4.98E-04 15.40%	1.12E-05 0.48%	4.37E-04 4.35%	8.96E-04 34.06%	2.85E-04 24.19%	0.0 0.0 %	9.92E-05 40.07%	0.0 0.0 %
CS137	5.36E-04 16.58%	1.74E-05 0.74%	1.08E-03 10.73%	1.27E-03 48.07%	4.23E-04 35.90%	0.0 0.0 %	1.48E-04 59.85%	0.0 0.0 %
BA140	1.63E-05 0.50%	3.36E-04 14.38%	2.62E-04 2.61%	2.82E-07 0.01%	9.45E-08 0.0 %	0.0 0.0 %	1.68E-07 0.07%	0.0 0.0 %
I 131	1.61E-06 0.05%	5.36E-07 0.02%	2.31E-06 0.02%	2.84E-06 0.11%	4.79E-06 0.41%	9.19E-04 1.11%	0.0 0.0 %	0.0 0.0 %
CO 58	6.92E-06 0.21%	3.97E-05 1.70%	0.0 0.0 %	2.74E-06 0.10%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
CO 60	2.59E-04 8.00%	1.41E-03 60.27%	0.0 0.0 %	1.05E-04 3.98%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
MN 54	1.83E-05 0.57%	1.85E-04 7.91%	0.0 0.0 %	8.46E-05 3.21%	2.47E-05 2.10%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
CR 51	1.87E-08 0.0 %	2.98E-06 0.13%	0.0 0.0 %	0.0 0.0 %	3.59E-09 0.0 %	1.08E-08 0.0 %	2.27E-08 0.0 %	0.0 0.0 %
I 131	9.10E-08 0.0 %	3.03E-08 0.0 %	1.31E-07 0.0 %	1.61E-07 0.0 %	2.71E-07 0.02%	5.20E-05 0.06%	0.0 0.0 %	0.0 0.0 %
ZN 65	1.17E-05 0.36%	1.03E-05 0.44%	7.57E-06 0.08%	2.28E-05 0.87%	1.49E-05 1.26%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
I 131	3.50E-06 0.11%	1.17E-06 0.05%	5.02E-06 0.05%	6.18E-06 0.23%	1.04E-05 0.88%	2.00E-03 2.42%	0.0 0.0 %	0.0 0.0 %
I 133	3.00E-13 0.0 %	6.22E-13 0.0 %	6.01E-13 0.0 %	9.02E-13 0.0 %	1.55E-12 0.0 %	1.45E-10 0.0 %	0.0 0.0 %	0.0 0.0 %
I 131	8.70E-07 0.03%	2.90E-07 0.01%	1.25E-06 0.01%	1.54E-06 0.06%	2.59E-06 0.22%	4.98E-04 0.60%	0.0 0.0 %	0.0 0.0 %
I 131	1.53E-07 0.0 %	5.11E-08 0.0 %	2.20E-07 0.0 %	2.70E-07 0.01%	4.56E-07 0.04%	8.77E-05 0.11%	0.0 0.0 %	0.0 0.0 %
I 131	5.27E-08 0.0 %	1.76E-08 0.0 %	7.56E-08 0.0 %	9.30E-08 0.0 %	1.57E-07 0.01%	3.01E-05 0.04%	0.0 0.0 %	0.0 0.0 %
TOTAL	3.23E-03	2.34E-03	1.00E-02	2.63E-03	1.18E-03	8.27E-02	2.47E-04	0.0

COOPER NUCLEAR STATION : ANNUAL PERIOD 1981 : COMBINED RELEASE
NEPA ANNUAL INTEGRATED POPULATION DOSE SUMMARY (MANREM)
PATHWAY = COW MILK

NUCLIDE	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
I 131	2.87E-04 11.10%	8.88E-05 17.39%	4.24E-04 8.81%	5.08E-04 9.82%	8.54E-04 34.78%	1.64E-01 94.63%	0.0 0.0 %	0.0 0.0 %
I 133	1.47E-06 0.06%	2.83E-06 0.55%	2.97E-06 0.06%	4.35E-06 0.08%	7.44E-06 0.30%	7.11E-04 0.41%	0.0 0.0 %	0.0 0.0 %
SR 89	4.64E-06 0.18%	1.44E-05 2.82%	1.62E-04 3.37%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
SR 90	2.26E-04 8.72%	2.05E-05 4.01%	9.06E-04 18.86%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
CS134	9.38E-04 36.29%	2.15E-05 4.21%	9.33E-04 19.41%	1.86E-03 36.01%	5.90E-04 24.01%	0.0 0.0 %	2.07E-04 40.23%	0.0 0.0 %
CS137	9.94E-04 38.42%	3.32E-05 6.49%	2.28E-03 47.52%	2.61E-03 50.51%	8.71E-04 35.45%	0.0 0.0 %	3.08E-04 59.77%	0.0 0.0 %
BA140	1.64E-06 0.06%	3.09E-05 6.05%	2.66E-05 0.55%	2.79E-08 0.0 %	9.30E-09 0.0 %	0.0 0.0 %	1.67E-08 0.0 %	0.0 0.0 %
I 131	3.36E-06 0.13%	1.04E-06 0.20%	4.96E-06 0.10%	5.94E-06 0.11%	1.00E-05 0.41%	1.92E-03 1.11%	0.0 0.0 %	0.0 0.0 %
CO 58	1.16E-06 0.05%	6.00E-06 1.17%	0.0 0.0 %	4.50E-07 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
CO 60	4.55E-05 1.76%	2.23E-04 43.76%	0.0 0.0 %	1.80E-05 0.35%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
MN 54	7.93E-07 0.03%	7.16E-06 1.40%	0.0 0.0 %	3.57E-06 0.07%	1.04E-06 0.04%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
CR 51	7.55E-09 0.0 %	1.08E-06 0.21%	0.0 0.0 %	0.0 0.0 %	1.41E-09 0.0 %	4.31E-09 0.0 %	8.98E-09 0.0 %	0.0 0.0 %
I 131	1.90E-07 0.0 %	5.88E-08 0.01%	2.81E-07 0.0 %	3.36E-07 0.0 %	5.66E-07 0.02%	1.09E-04 0.06%	0.0 0.0 %	0.0 0.0 %
ZN 65	7.13E-05 2.76%	5.63E-05 11.03%	4.56E-05 0.95%	1.36E-04 2.64%	8.84E-05 3.60%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
I 131	7.31E-06 0.28%	2.26E-06 0.44%	1.08E-05 0.22%	1.29E-05 0.25%	2.18E-05 0.89%	4.18E-03 2.41%	0.0 0.0 %	0.0 0.0 %
I 133	8.20E-10 0.0 %	1.58E-09 0.0 %	1.66E-09 0.0 %	2.42E-09 0.0 %	4.14E-09 0.0 %	3.96E-07 0.0 %	0.0 0.0 %	0.0 0.0 %
I 131	1.82E-06 0.07%	5.63E-07 0.11%	2.68E-06 0.06%	3.22E-06 0.06%	5.41E-06 0.22%	1.04E-03 0.60%	0.0 0.0 %	0.0 0.0 %
I 131	3.28E-07 0.01%	9.91E-08 0.02%	4.73E-07 0.0 %	5.66E-07 0.01%	9.53E-07 0.04%	1.83E-04 0.11%	0.0 0.0 %	0.0 0.0 %
I 131	1.95E-06 0.08%	6.03E-07 0.12%	2.88E-06 0.06%	3.45E-06 0.07%	5.80E-06 0.24%	1.11E-03 0.64%	0.0 0.0 %	0.0 0.0 %
I 131	1.10E-07 0.0 %	3.41E-08 0.0 %	1.63E-07 0.0 %	1.95E-07 0.0 %	3.28E-07 0.01%	6.30E-05 0.04%	0.0 0.0 %	0.0 0.0 %
TOTAL	2.59E-03	5.11E-04	4.81E-03	5.17E-03	2.46E-03	1.74E-01	5.15E-04	0.0

COOPER NUCLEAR STATION : ANNUAL PERIOD 1981 : COMBINED RELEASE
NEPA ANNUAL INTEGRATED POPULATION DOSE SUMMARY (MANREM)
PATHWAY = MEAT

NUCLIDE	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
I 131	2.28E-05 2.01%	8.90E-06 0.32%	3.04E-05 2.38%	4.00E-05 3.19%	6.80E-05 15.43%	1.30E-02 95.02%	0.0 0.0 %	0.0 0.0 %
I 133	1.18E-12 0.0 %	2.89E-12 0.0 %	2.30E-12 0.0 %	3.69E-12 0.0 %	6.38E-12 0.0 %	5.69E-10 0.0 %	0.0 0.0 %	0.0 0.0 %
SR 89	1.64E-06 0.14%	7.07E-06 0.26%	5.71E-05 4.47%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
SR 90	1.17E-04 10.39%	1.25E-05 0.45%	4.76E-04 37.26%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
CS134	2.75E-04 24.31%	6.05E-06 0.22%	1.86E-04 14.59%	4.09E-04 32.58%	1.31E-04 29.72%	0.0 0.0 %	4.47E-05 40.59%	0.0 0.0 %
CS137	2.97E-04 26.28%	9.21E-06 0.33%	4.51E-04 35.29%	5.66E-04 45.13%	1.91E-04 43.26%	0.0 0.0 %	6.58E-05 59.37%	0.0 0.0 %
BA140	3.37E-06 0.30%	8.51E-05 3.09%	5.30E-05 4.15%	6.11E-08 0.0 %	2.06E-08 0.0 %	0.0 0.0 %	3.59E-08 0.03%	0.0 0.0 %
I 131	2.66E-07 0.02%	1.04E-07 0.0 %	3.56E-07 0.03%	4.68E-07 0.04%	7.96E-07 0.18%	1.52E-04 1.11%	0.0 0.0 %	0.0 0.0 %
CO 58	8.14E-06 0.72%	5.84E-05 2.12%	0.0 0.0 %	3.41E-06 0.27%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
CO 60	3.70E-04 32.69%	2.51E-03 91.12%	0.0 0.0 %	1.58E-04 12.58%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
MN 54	1.54E-06 0.14%	1.96E-05 0.71%	0.0 0.0 %	7.56E-06 0.60%	2.23E-06 0.51%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
CR 51	3.46E-09 0.0 %	6.89E-07 0.03%	0.0 0.0 %	0.0 0.0 %	7.08E-10 0.0 %	2.02E-09 0.0 %	4.37E-09 0.0 %	0.0 0.0 %
I 131	1.51E-08 0.0 %	5.89E-09 0.0 %	2.01E-08 0.0 %	2.65E-08 0.0 %	4.50E-08 0.01%	8.61E-06 0.06%	0.0 0.0 %	0.0 0.0 %
ZN 65	3.31E-05 2.92%	3.65E-05 1.33%	2.21E-05 1.73%	6.86E-05 5.46%	4.52E-05 10.26%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %
I 131	5.80E-07 0.05%	2.27E-07 0.0 %	7.75E-07 0.06%	1.02E-06 0.08%	1.73E-06 0.39%	3.31E-04 2.42%	0.0 0.0 %	0.0 0.0 %
I 133	6.58E-16 0.0 %	1.61E-15 0.0 %	1.28E-15 0.0 %	2.05E-15 0.0 %	3.55E-15 0.0 %	3.17E-13 0.0 %	0.0 0.0 %	0.0 0.0 %
I 131	1.44E-07 0.01%	5.64E-08 0.0 %	1.93E-07 0.02%	2.54E-07 0.02%	4.31E-07 0.10%	8.24E-05 0.60%	0.0 0.0 %	0.0 0.0 %
I 131	2.54E-08 0.0 %	9.93E-09 0.0 %	3.39E-08 0.0 %	4.46E-08 0.0 %	7.59E-08 0.02%	1.45E-05 0.11%	0.0 0.0 %	0.0 0.0 %
I 131	1.54E-07 0.01%	6.04E-08 0.0 %	2.06E-07 0.02%	2.72E-07 0.02%	4.62E-07 0.10%	8.83E-05 0.64%	0.0 0.0 %	0.0 0.0 %
I 131	8.73E-09 0.0 %	3.41E-09 0.0 %	1.17E-08 0.0 %	1.54E-08 0.0 %	2.61E-08 0.0 %	4.99E-06 0.04%	0.0 0.0 %	0.0 0.0 %
TOTAL	1.13E-03	2.75E-03	1.28E-03	1.25E-03	4.41E-04	1.37E-02	1.10E-04	0.0

COOPER NUCLEAR STATION : ANNUAL PERIOD 1981 : COMBINED RELEASE
NEPA ANNUAL INTEGRATED POPULATION DOSE SUMMARY (MANREM)
PATHWAY = *TOTAL*

NUCLIDE	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
KR 85	1.42E-03 0.21%	1.42E-03 0.21%	1.42E-03 0.21%	1.42E-03 0.21%	1.42E-03 0.21%	1.42E-03 0.15%	4.72E-03 0.68%	2.38E-01 9.18%
KR 85M	8.72E-03 1.29%	8.72E-03 1.29%	8.72E-03 1.27%	8.72E-03 1.29%	8.72E-03 1.30%	8.72E-03 0.95%	9.01E-03 1.30%	3.19E-02 1.27%
KR 87	3.51E-01 51.90%	3.51E-01 52.01%	3.51E-01 51.20%	3.51E-01 51.74%	3.51E-01 52.12%	3.51E-01 37.25%	3.63E-01 52.20%	1.56E+00 60.15%
KR 88	1.39E-01 20.60%	1.39E-01 20.64%	1.39E-01 20.32%	1.39E-01 20.53%	1.39E-01 20.68%	1.39E-01 14.78%	1.40E-01 20.11%	2.05E-01 7.90%
XE133	8.72E-02 12.89%	8.72E-02 12.92%	8.72E-02 12.72%	8.72E-02 12.85%	8.72E-02 12.95%	8.72E-02 9.25%	9.34E-02 13.43%	2.98E-01 11.48%
XE135	7.29E-02 10.78%	7.29E-02 10.80%	7.29E-02 10.63%	7.29E-02 10.75%	7.29E-02 10.83%	7.29E-02 7.74%	7.49E-02 10.76%	2.36E-01 9.09%
XE135M	2.44E-04 0.04%	2.44E-04 0.04%	2.44E-04 0.04%	2.44E-04 0.04%	2.44E-04 0.04%	2.44E-04 0.03%	2.46E-04 0.04%	4.04E-04 0.02%
XE138	3.17E-03 0.47%	3.17E-03 0.47%	3.17E-03 0.46%	3.17E-03 0.47%	3.17E-03 0.47%	3.17E-03 0.34%	3.20E-03 0.46%	6.63E-03 0.26%
KR 89	1.38E-05 0.0 %	1.38E-05 0.0 %	1.38E-05 0.0 %	1.38E-05 0.0 %	1.38E-05 0.0 %	1.38E-05 0.0 %	1.40E-05 0.0 %	5.27E-05 0.0 %
KR 89M	6.64E-08 0.0 %	6.64E-08 0.0 %	6.64E-08 0.0 %	6.64E-08 0.0 %	6.64E-08 0.0 %	6.64E-08 0.0 %	5.18E-06 0.0 %	1.88E-05 0.0 %
XE137	3.97E-06 0.0 %	3.97E-06 0.0 %	3.97E-06 0.0 %	3.97E-06 0.0 %	3.97E-06 0.0 %	3.97E-06 0.0 %	4.66E-06 0.0 %	7.30E-05 0.0 %
XE138M	1.04E-03 0.15%	1.04E-03 0.15%	1.04E-03 0.15%	1.04E-03 0.15%	1.04E-03 0.15%	1.04E-03 0.11%	1.16E-03 0.17%	9.74E-03 0.38%
XE141M	3.17E-04 0.05%	3.17E-04 0.05%	3.17E-04 0.05%	3.17E-04 0.05%	3.17E-04 0.05%	3.17E-04 0.03%	3.93E-04 0.06%	3.90E-03 0.15%
I 131	4.55E-04 0.07%	1.48E-04 0.02%	6.60E-04 0.10%	8.00E-04 0.12%	1.35E-03 0.20%	2.58E-01 27.38%	3.71E-06 0.0 %	4.50E-06 0.0 %
I 133	4.14E-06 0.0 %	6.43E-06 0.0 %	7.17E-06 0.0 %	1.03E-05 0.0 %	1.69E-05 0.0 %	1.47E-03 0.16%	1.10E-06 0.0 %	1.34E-06 0.0 %
SR 89	3.99E-05 0.0 %	1.38E-04 0.02%	1.39E-03 0.20%	3.11E-10 0.0 %	3.11E-10 0.0 %	3.11E-10 0.0 %	8.77E-06 0.0 %	3.60E-10 0.0 %
SR 90	2.06E-03 0.30%	1.97E-04 0.03%	8.39E-03 1.22%	0.0 0.0 %	0.0 0.0 %	0.0 0.0 %	1.43E-05 0.0 %	0.0 0.0 %
CS134	1.86E-03 0.27%	1.76E-04 0.03%	1.70E-03 0.25%	3.31E-03 0.49%	1.15E-03 0.17%	1.38E-04 0.01%	4.90E-04 0.07%	1.60E-04 0.0 %
CS137	2.18E-03 0.32%	4.07E-04 0.06%	4.17E-03 0.61%	4.80E-03 0.71%	1.84E-03 0.27%	3.47E-04 0.04%	8.69E-04 0.12%	4.05E-04 0.07%
BA140	7.44E-05 0.0 %	4.67E-04 0.07%	3.48E-04 0.05%	3.34E-06 0.0 %	3.09E-06 0.0 %	2.96E-06 0.0 %	8.66E-05 0.01%	3.38E-06 0.0 %
I 131	5.36E-06 0.0 %	1.74E-06 0.0 %	7.78E-06 0.0 %	9.44E-06 0.0 %	1.59E-05 0.0 %	3.04E-03 0.42%	4.29E-08 0.0 %	5.21E-08 0.0 %
CO 58	2.25E-05 0.0 %	1.11E-04 0.02%	6.23E-06 0.0 %	1.28E-05 0.0 %	6.23E-06 0.0 %	6.23E-06 0.0 %	1.36E-05 0.0 %	7.30E-06 0.0 %
CO 60	4.09E-03 0.60%	7.58E-03 1.12%	3.41E-03 0.50%	3.70E-03 0.54%	3.41E-03 0.51%	3.41E-03 0.36%	3.93E-03 0.57%	4.02E-03 0.15%
MN 54	1.11E-04 0.02%	3.04E-04 0.05%	9.05E-05 0.01%	1.87E-04 0.03%	1.19E-04 0.02%	9.05E-05 0.0 %	1.36E-04 0.02%	1.06E-04 0.0 %
CR 51	2.29E-07 0.0 %	5.00E-06 0.0 %	1.97E-07 0.0 %	1.07E-07 0.0 %	2.03E-07 0.0 %	2.15E-07 0.0 %	5.31E-07 0.0 %	2.53E-07 0.0 %
I 131	3.01E-07 0.0 %	9.79E-08 0.0 %	4.37E-07 0.0 %	5.30E-07 0.0 %	8.91E-07 0.0 %	1.71E-04 0.02%	2.25E-09 0.0 %	2.73E-09 0.0 %
ZN 65	1.19E-04 0.02%	1.06E-04 0.02%	7.84E-05 0.01%	2.31E-04 0.03%	1.52E-04 0.02%	5.07E-06 0.0 %	4.72E-06 0.0 %	3.53E-06 0.0 %
I 131	1.16E-05 0.0 %	3.78E-06 0.0 %	1.69E-05 0.0 %	2.05E-05 0.0 %	3.44E-05 0.0 %	6.59E-03 0.70%	9.56E-08 0.0 %	1.16E-07 0.0 %
I 133	1.76E-09 0.0 %	3.04E-09 0.0 %	3.33E-09 0.0 %	4.70E-09 0.0 %	7.63E-09 0.0 %	6.55E-07 0.0 %	6.08E-10 0.0 %	7.40E-10 0.0 %
I 131	2.98E-06 0.0 %	9.46E-07 0.0 %	4.21E-06 0.0 %	5.11E-06 0.0 %	8.59E-06 0.0 %	1.65E-03 0.17%	2.53E-08 0.0 %	3.37E-08 0.0 %
I 131	5.06E-07 0.0 %	1.65E-07 0.0 %	7.35E-07 0.0 %	8.91E-07 0.0 %	1.50E-06 0.0 %	2.87E-04 0.03%	4.23E-09 0.0 %	5.14E-09 0.0 %
I 131	3.11E-06 0.0 %	1.01E-06 0.0 %	4.51E-06 0.0 %	5.47E-06 0.0 %	9.20E-06 0.0 %	1.76E-03 0.19%	2.55E-08 0.0 %	3.09E-08 0.0 %
I 131	1.74E-07 0.0 %	5.67E-08 0.0 %	2.53E-07 0.0 %	3.06E-07 0.0 %	5.15E-07 0.0 %	9.88E-05 0.01%	1.40E-09 0.0 %	1.70E-09 0.0 %
TOTAL	6.76E-01	6.75E-01	6.85E-01	6.78E-01	6.73E-01	9.42E-01	6.96E-01	2.59E+00

COOPER NUCLEAR STATION : THIRD QUARTERLY PERIOD 1981 : COMBINED RELEASE
SPECIAL LOCATION # 1 LOCATION
AT 0.50 MILES NNW

ANNUAL BETA AIR DOSE = 3.76E-01 MILLRADS
ANNUAL GAMMA AIR DOSE = 5.87E-01 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	3.94E-01	3.94E-01	3.94E-01	3.94E-01	3.94E-01	3.94E-01	3.98E-01	7.57E-01
GROUND	3.12E-02	3.12E-02	3.12E-02	3.12E-02	3.12E-02	3.12E-02	3.12E-02	3.66E-02
VEGET								
ADULT	5.96E-03	4.34E-03	1.19E-02	5.28E-03	1.84E-03	3.22E-02	5.46E-04	0.0
TEEN	6.29E-03	4.63E-03	1.65E-02	8.28E-03	2.79E-03	2.74E-02	1.00E-03	0.0
CHILD	7.99E-03	3.09E-03	3.19E-02	1.37E-02	4.44E-03	4.26E-02	1.50E-03	0.0
MEAT								
ADULT	4.20E-04	9.62E-04	3.68E-04	4.55E-04	1.51E-04	3.59E-03	4.37E-05	0.0
TEEN	2.29E-04	5.21E-04	2.87E-04	3.63E-04	1.20E-04	2.60E-03	4.05E-05	0.0
CHILD	2.30E-04	2.65E-04	4.92E-04	4.65E-04	1.50E-04	3.92E-03	4.68E-05	0.0
COW MILK								
ADULT	2.70E-03	4.09E-04	2.70E-03	3.69E-03	1.67E-03	1.02E-01	3.72E-04	0.0
TEEN	2.76E-03	5.13E-04	4.71E-03	6.46E-03	2.93E-03	1.61E-01	7.52E-04	0.0
CHILD	2.54E-03	3.75E-04	1.09E-02	1.09E-02	4.81E-03	3.21E-01	1.14E-03	0.0
INFANT	2.97E-03	3.52E-04	1.76E-02	2.14E-02	7.85E-03	7.79E-01	2.03E-03	0.0
GOATMILK								
ADULT	7.62E-03	3.73E-04	7.29E-03	1.05E-02	4.02E-03	1.22E-01	1.12E-03	0.0
TEEN	7.52E-03	4.87E-04	1.28E-02	1.83E-02	7.02E-03	1.94E-01	2.25E-03	0.0
CHILD	6.18E-03	3.74E-04	2.99E-02	3.09E-02	1.15E-02	3.85E-01	3.42E-03	0.0
INFANT	6.39E-03	3.64E-04	4.76E-02	5.96E-02	1.84E-02	9.35E-01	6.09E-03	0.0
INHAL								
ADULT	9.72E-05	1.40E-04	2.99E-04	1.26E-04	9.36E-05	8.13E-03	1.94E-03	0.0
TEEN	8.84E-05	1.37E-04	3.53E-04	1.72E-04	1.28E-04	1.04E-02	2.87E-03	0.0
CHILD	6.34E-05	5.69E-05	3.80E-04	1.63E-04	1.19E-04	1.24E-02	2.35E-03	0.0
INFANT	3.27E-05	2.03E-05	1.98E-04	1.28E-04	7.63E-05	1.14E-02	1.59E-03	0.0

COOPER NUCLEAR STATION : THIRD QUARTERLY PERIOD 1981 : COMBINED RELEASE
SPECIAL LOCATION # 1 LOCATION
AT 0.50 MILES S

ANNUAL BETA AIR DOSE = 2.56E-01 MILLRADS
ANNUAL GAMMA AIR DOSE = 3.99E-01 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	2.68E-01	2.68E-01	2.68E-01	2.68E-01	2.68E-01	2.68E-01	2.71E-01	5.15E-01
GROUND	2.69E-02	2.69E-02	2.69E-02	2.69E-02	2.69E-02	2.69E-02	2.69E-02	3.16E-02
VEGET								
ADULT	5.21E-03	3.76E-03	1.05E-02	4.57E-03	1.60E-03	2.93E-02	4.72E-04	0.0
TEEN	5.50E-03	4.91E-03	1.46E-02	7.15E-03	2.42E-03	2.50E-02	8.64E-04	0.0
CHILD	7.02E-03	2.68E-03	2.82E-02	1.19E-02	3.84E-03	3.89E-02	1.30E-03	0.0
MEAT								
ADULT	3.64E-04	8.30E-04	3.21E-04	3.94E-04	1.31E-04	5.27E-03	3.78E-05	0.0
TEEN	1.98E-04	4.49E-04	2.50E-04	3.14E-04	1.05E-04	2.37E-03	3.49E-05	0.0
CHILD	1.99E-04	2.29E-04	4.29E-04	4.02E-04	1.30E-04	3.58E-03	4.05E-05	0.0
COW MILK								
ADULT	2.34E-03	3.60E-04	2.35E-03	3.20E-03	1.47E-03	9.29E-02	3.21E-04	0.0
TEEN	2.40E-03	4.52E-04	4.11E-03	5.60E-03	2.58E-03	1.47E-01	6.49E-04	0.0
CHILD	2.23E-03	3.30E-04	9.52E-03	9.47E-03	4.23E-03	2.92E-01	9.83E-04	0.0
INFANT	2.62E-03	3.11E-04	1.54E-02	1.86E-02	6.91E-03	7.10E-01	1.75E-03	0.0
GOATMILK								
ADULT	6.60E-03	3.30E-04	6.33E-03	9.05E-03	3.51E-03	1.11E-01	9.64E-04	0.0
TEEN	6.51E-03	4.30E-04	1.11E-02	1.58E-02	6.12E-03	1.77E-01	1.95E-03	0.0
CHILD	5.38E-03	3.31E-04	2.59E-02	2.67E-02	9.99E-03	3.51E-01	2.95E-03	0.0
INFANT	5.59E-03	3.23E-04	4.14E-02	5.16E-02	1.61E-02	8.52E-01	5.26E-03	0.0
INHAL								
ADULT	7.16E-05	1.02E-04	2.15E-04	9.15E-05	6.29E-05	5.18E-03	1.46E-03	0.0
TEEN	6.41E-05	9.93E-05	2.53E-04	1.24E-04	8.60E-05	6.61E-03	2.17E-03	0.0
CHILD	4.47E-05	4.37E-05	2.72E-04	1.18E-04	7.98E-05	7.88E-03	1.77E-03	0.0
INFANT	2.25E-05	1.45E-05	1.41E-04	9.14E-05	5.09E-05	7.24E-03	1.19E-03	0.0

COOPER NUCLEAR STATION : FOURTH QUARTERLY PERIOD 1981 : COMBINED RELEASE
SPECIAL LOCATION # 1 LOCATION
AT 0.50 MILES NNW

ANNUAL BETA AIR DOSE = 1.98E+00 MILLRADS
ANNUAL GAMMA AIR DOSE = 3.13E+00 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	2.08E+00	2.08E+00	2.08E+00	2.08E+00	2.08E+00	2.08E+00	2.10E+00	4.02E+00
GROUND	1.04E-02	1.04E-02	1.04E-02	1.04E-02	1.04E-02	1.04E-02	1.04E-02	1.23E-02
VEGET								
ADULT	7.05E-03	2.32E-03	2.57E-02	1.59E-03	5.94E-04	1.88E-02	1.60E-04	0.0
TEEN	8.68E-03	2.59E-03	3.36E-02	2.48E-03	8.67E-04	1.61E-02	2.91E-04	0.0
CHILD	1.41E-02	1.85E-03	5.86E-02	4.08E-03	1.36E-03	2.50E-02	4.36E-04	0.0
MEAT								
ADULT	1.93E-04	3.52E-04	3.76E-04	1.39E-04	4.96E-05	2.08E-03	1.28E-05	0.0
TEEN	1.14E-04	1.93E-04	2.62E-04	1.11E-04	3.96E-05	1.51E-03	1.18E-05	0.0
CHILD	1.30E-04	9.96E-05	3.85E-04	1.41E-04	4.93E-05	2.28E-03	1.36E-05	0.0
COW MILK								
ADULT	1.39E-03	2.12E-04	1.84E-03	1.18E-03	6.53E-04	5.94E-02	1.09E-04	0.0
TEEN	1.24E-03	2.74E-04	2.92E-03	2.07E-03	1.15E-03	9.42E-02	2.20E-04	0.0
CHILD	1.49E-03	2.08E-04	5.97E-03	3.49E-03	1.88E-03	1.87E-01	3.32E-04	0.0
INFANT	1.83E-03	2.01E-04	9.73E-03	6.95E-03	3.12E-03	4.55E-01	5.90E-04	0.0
GOAT MILK								
ADULT	2.82E-03	2.29E-04	4.26E-03	3.19E-03	1.37E-03	7.13E-02	3.27E-04	0.0
TEEN	3.24E-03	3.05E-04	6.83E-03	5.57E-03	2.40E-03	1.13E-01	6.59E-04	0.0
CHILD	3.24E-03	2.42E-04	1.42E-02	9.38E-03	3.92E-03	2.25E-01	9.95E-04	0.0
INFANT	3.59E-03	2.39E-04	2.07E-02	1.82E-02	6.36E-03	5.46E-01	1.77E-03	0.0
INHAL								
ADULT	7.75E-05	8.58E-05	7.73E-04	5.22E-05	4.82E-05	4.60E-03	9.31E-04	0.0
TEEN	7.98E-05	8.66E-05	8.55E-04	7.10E-05	6.63E-05	5.92E-03	1.41E-03	0.0
CHILD	7.37E-05	5.73E-05	8.25E-04	6.79E-05	6.18E-05	7.17E-03	1.17E-03	0.0
INFANT	3.29E-05	1.37E-05	3.58E-04	5.52E-05	4.01E-05	6.59E-03	8.45E-04	0.0

COOPER NUCLEAR STATION : FOURTH QUARTERLY PERIOD 1981 : COMBINED RELEASE
SPECIAL LOCATION # 1 LOCATION
AT 0.50 MILES SSW

ANNUAL BETA AIR DOSE = 1.04E+00 MILLRADS
ANNUAL GAMMA AIR DOSE = 1.63E+00 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	1.10E+00	1.10E+00	1.10E+00	1.10E+00	1.10E+00	1.10E+00	1.11E+00	2.12E+00
GROUND	8.35E-03	8.35E-03	8.35E-03	8.35E-03	8.35E-03	8.35E-03	8.35E-03	9.81E-03
VEGET								
ADULT	5.11E-03	1.75E-03	1.83E-02	1.26E-03	4.51E-04	1.08E-02	1.28E-04	0.0
TEEN	6.26E-03	1.94E-03	2.39E-02	1.97E-03	6.70E-04	9.20E-03	2.33E-04	0.0
CHILD	1.01E-02	1.38E-03	4.16E-02	3.24E-03	1.06E-03	1.43E-02	3.48E-04	0.0
MEAT								
ADULT	1.48E-04	2.78E-04	2.71E-04	1.10E-04	3.72E-05	1.19E-03	1.02E-05	0.0
TEEN	8.63E-05	1.51E-04	1.89E-04	8.76E-05	2.96E-05	8.64E-04	9.44E-06	0.0
CHILD	9.76E-05	7.81E-05	2.79E-04	1.12E-04	3.69E-05	1.30E-03	1.09E-05	0.0
COW MILK								
ADULT	8.23E-04	1.48E-04	1.34E-03	9.02E-04	4.48E-04	3.40E-02	8.73E-05	0.0
TEEN	9.21E-04	1.90E-04	2.12E-03	1.58E-03	7.86E-04	5.39E-02	1.76E-04	0.0
CHILD	1.06E-03	1.43E-04	4.36E-03	2.66E-03	1.29E-03	1.07E-01	2.65E-04	0.0
INFANT	1.26E-03	1.37E-04	6.33E-03	5.23E-03	2.12E-03	2.61E-01	4.72E-04	0.0
GOATMILK								
ADULT	2.18E-03	1.56E-04	3.15E-03	2.50E-03	1.01E-03	4.08E-02	2.62E-04	0.0
TEEN	2.31E-03	2.08E-04	5.07E-03	4.36E-03	1.76E-03	6.47E-02	5.27E-04	0.0
CHILD	2.39E-03	1.63E-04	1.06E-02	7.34E-03	2.87E-03	1.29E-01	7.96E-04	0.0
INFANT	2.57E-03	1.61E-04	1.54E-02	1.42E-02	4.63E-03	3.13E-01	1.42E-03	0.0
INHAL								
ADULT	4.28E-05	4.66E-05	4.28E-04	2.77E-05	2.34E-05	2.11E-03	5.30E-04	0.0
TEEN	4.37E-05	4.69E-05	4.73E-04	3.77E-05	3.22E-05	2.72E-03	8.02E-04	0.0
CHILD	3.32E-05	2.00E-05	4.56E-04	3.59E-05	3.00E-05	3.30E-03	6.65E-04	0.0
INFANT	1.74E-05	7.33E-06	1.97E-04	2.87E-05	1.93E-05	3.03E-03	4.76E-04	0.0

COOPER NUCLEAR STATION : SECOND SEMI-ANNUAL PERIOD 1981 : COMBINED RELEASE
SPECIAL LOCATION = 1 LOCATION
AT 0.50 MILES NNW

ANNUAL BETA AIR DOSE = 2.35E+00 MILLRADS
ANNUAL GAMMA AIR DOSE = 3.69E+00 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	2.48E+00	2.48E+00	2.48E+00	2.48E+00	2.48E+00	2.48E+00	2.50E+00	4.77E+00
GROUND	4.16E-02	4.16E-02	4.16E-02	4.16E-02	4.16E-02	4.16E-02	4.16E-02	4.89E-02
VEGET								
ADULT	1.30E-02	6.67E-03	3.76E-02	6.88E-03	2.44E-03	5.10E-02	7.06E-04	0.0
TEEN	1.50E-02	7.22E-03	5.00E-02	1.08E-02	3.66E-03	4.35E-02	1.29E-03	0.0
CHILD	2.21E-02	4.94E-03	9.05E-02	1.78E-02	5.79E-03	6.77E-02	1.94E-03	0.0
MEAT								
ADULT	6.13E-04	1.31E-03	7.44E-04	5.95E-04	2.00E-04	5.67E-03	5.65E-05	0.0
TEEN	3.43E-04	7.13E-04	5.49E-04	4.74E-04	1.60E-04	4.11E-03	5.23E-05	0.0
CHILD	3.59E-04	3.65E-04	9.77E-04	6.06E-04	1.99E-04	6.20E-03	6.05E-05	0.0
COW MILK								
ADULT	3.79E-03	6.21E-04	4.54E-03	4.87E-03	2.33E-03	1.61E-01	4.81E-04	0.0
TEEN	4.30E-03	7.87E-04	7.64E-03	8.52E-03	4.08E-03	2.56E-01	9.71E-04	0.0
CHILD	4.04E-03	5.83E-04	1.69E-02	1.44E-02	6.69E-03	5.08E-01	1.47E-03	0.0
INFANT	4.79E-03	5.53E-04	2.64E-02	2.83E-02	1.10E-02	1.23E+00	2.62E-03	0.0
GOATMILK								
ADULT	1.04E-02	6.32E-04	1.16E-02	1.37E-02	5.40E-03	1.94E-01	1.44E-03	0.0
TEEN	1.06E-02	7.92E-04	1.96E-02	2.39E-02	9.42E-03	3.07E-01	2.91E-03	0.0
CHILD	9.42E-03	6.16E-04	4.40E-02	4.03E-02	1.54E-02	6.09E-01	4.41E-03	0.0
INFANT	9.98E-03	6.03E-04	6.83E-02	7.78E-02	2.48E-02	1.48E+00	7.86E-03	0.0
INHAL								
ADULT	1.75E-04	2.26E-04	1.07E-03	1.79E-04	1.42E-04	1.27E-02	2.87E-03	0.0
TEEN	1.68E-04	2.24E-04	1.21E-03	2.43E-04	1.94E-04	1.63E-02	4.28E-03	0.0
CHILD	1.34E-04	9.42E-05	1.20E-03	2.31E-04	1.81E-04	1.96E-02	3.52E-03	0.0
INFANT	6.56E-05	3.43E-05	6.55E-04	1.83E-04	1.16E-04	1.80E-02	2.44E-03	0.0

COOPER NUCLEAR STATION : SECOND SEMI-ANNUAL PERIOD 1981 : COMBINED RELEASE
SPECIAL LOCATION # 1 LOCATION
AT 0.50 MILES SSW

ANNUAL BETA AIR DOSE = 1.21E+00 MILLRADS
ANNUAL GAMMA AIR DOSE = 1.90E+00 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	1.28E+00	1.28E+00	1.28E+00	1.28E+00	1.28E+00	1.28E+00	1.29E+00	2.47E+00
GROUND	2.75E-02	2.75E-02	2.75E-02	2.75E-02	2.75E-02	2.75E-02	2.75E-02	3.23E-02
VEGET								
ADULT	8.61E-03	4.36E-03	2.48E-02	4.48E-03	1.55E-03	2.62E-02	4.62E-04	0.0
TEEN	9.92E-03	4.73E-03	3.30E-02	7.02E-03	2.35E-03	2.24E-02	8.45E-04	0.0
CHILD	1.47E-02	3.24E-03	5.95E-02	1.16E-02	3.74E-03	3.48E-02	1.27E-03	0.0
MEAT								
ADULT	4.03E-04	8.66E-04	4.86E-04	3.87E-04	1.27E-04	2.92E-03	3.70E-05	0.0
TEEN	2.25E-04	4.70E-04	3.57E-04	3.09E-04	1.01E-04	2.12E-03	3.42E-05	0.0
CHILD	2.36E-04	2.40E-04	5.68E-04	3.94E-04	1.26E-04	3.20E-03	3.96E-05	0.0
COW MILK								
ADULT	2.45E-03	3.82E-04	2.92E-03	3.12E-03	1.40E-03	8.30E-02	3.15E-04	0.0
TEEN	2.56E-03	4.82E-04	4.90E-03	5.45E-03	2.45E-03	1.32E-01	6.35E-04	0.0
CHILD	2.53E-03	3.53E-04	1.08E-02	9.20E-03	4.01E-03	2.61E-01	9.61E-04	0.0
INFANT	2.32E-03	3.34E-04	1.67E-02	1.80E-02	6.54E-03	6.35E-01	1.71E-03	0.0
GOATMILK								
ADULT	6.80E-03	3.65E-04	7.50E-03	8.85E-03	3.38E-03	9.96E-02	9.45E-04	0.0
TEEN	6.95E-03	4.78E-04	1.27E-02	1.55E-02	5.90E-03	1.58E-01	1.91E-03	0.0
CHILD	6.04E-03	3.70E-04	2.85E-02	2.61E-02	9.63E-03	3.14E-01	2.88E-03	0.0
INFANT	6.27E-03	3.62E-04	4.40E-02	5.02E-02	1.54E-02	7.62E-01	5.14E-03	0.0
INHAL								
ADULT	9.45E-05	1.20E-04	5.80E-04	9.30E-05	6.56E-05	5.41E-03	1.61E-03	0.0
TEEN	8.95E-05	1.18E-04	6.52E-04	1.26E-04	8.97E-05	6.93E-03	2.40E-03	0.0
CHILD	6.95E-05	4.89E-05	6.48E-04	1.20E-04	8.33E-05	8.30E-03	1.97E-03	0.0
INFANT	3.28E-05	1.75E-05	2.96E-04	9.32E-05	5.32E-05	7.62E-03	1.35E-03	0.0

COOPER NUCLEAR STATION : ANNUAL PERIOD 1981 : COMBINED RELEASE
SPECIAL LOCATION # 1 LOCATION
AT 0.50 MILES N

ANNUAL BETA AIR DOSE = 1.40E+01 MILLRADS
ANNUAL GAMMA AIR DOSE = 1.11E+01 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	7.44E+00	7.44E+00	7.44E+00	7.44E+00	7.44E+00	7.44E+00	7.58E+00	2.14E+01
GROUND	1.37E-01	1.37E-01	1.37E-01	1.37E-01	1.37E-01	1.37E-01	1.37E-01	1.61E-01
VEGET								
ADULT	2.62E-02	2.15E-02	6.31E-02	1.84E-02	6.58E-03	1.61E-01	1.79E-03	0.0
TEEN	2.94E-02	2.29E-02	8.51E-02	2.87E-02	9.78E-03	1.37E-01	3.27E-03	0.0
CHILD	4.14E-02	1.53E-02	1.58E-01	4.72E-02	1.54E-02	2.13E-01	4.89E-03	0.0
MEAT								
ADULT	1.66E-03	4.53E-03	1.53E-03	1.70E-03	6.02E-04	1.84E-02	1.44E-04	0.0
TEEN	9.65E-04	2.45E-03	1.16E-03	1.35E-03	4.76E-04	1.33E-02	1.32E-04	0.0
CHILD	1.07E-03	1.24E-03	1.91E-03	1.70E-03	5.88E-04	2.01E-02	1.53E-04	0.0
COW MILK								
ADULT	9.74E-03	2.10E-03	1.03E-02	1.31E-02	6.70E-03	5.15E-01	1.22E-03	0.0
TEEN	1.04E-02	2.59E-03	1.77E-02	2.24E-02	1.17E-02	8.16E-01	2.46E-03	0.0
CHILD	1.08E-02	1.85E-03	4.01E-02	3.86E-02	1.92E-02	1.62E+00	3.72E-03	0.0
INFANT	1.33E-02	3.07E-03	6.43E-02	7.59E-02	3.13E-02	3.83E+00	6.63E-03	0.0
GOATMILK								
ADULT	2.63E-02	1.54E-03	2.63E-02	3.51E-02	1.44E-02	6.18E-01	3.67E-03	0.0
TEEN	2.64E-02	2.31E-03	4.54E-02	6.14E-02	2.51E-02	9.79E-01	7.38E-03	0.0
CHILD	2.31E-02	1.54E-03	1.04E-01	1.03E-01	4.09E-02	1.94E+00	1.12E-02	0.0
INFANT	2.49E-02	1.66E-03	1.64E-01	2.00E-01	6.60E-02	4.71E+00	1.99E-02	0.0
INHAL								
ADULT	2.83E-04	4.55E-04	1.34E-03	3.31E-04	2.73E-04	2.92E-02	6.25E-03	0.0
TEEN	2.75E-04	4.43E-04	1.53E-03	4.44E-04	3.73E-04	3.68E-02	9.25E-03	0.0
CHILD	2.19E-04	1.82E-04	1.56E-03	4.26E-04	3.47E-04	4.30E-02	7.57E-03	0.0
INFANT	1.13E-04	6.56E-05	7.53E-04	3.37E-04	2.23E-04	3.94E-02	5.15E-03	0.0

COOPER NUCLEAR STATION : ANNUAL PERIOD 1981 : COMBINED RELEASE
SPECIAL LOCATION # 1 LOCATION
AT 0.50 MILES SSE

ANNUAL BETA AIR DOSE = 1.54E+01 MILLRADS
ANNUAL GAMMA AIR DOSE = 1.05E+01 MILLRADS

PATHWAY	T.BODY	GI-TRACT	BONE	LIVER	KIDNEY	THYROID	LUNG	SKIN
PLUME	7.06E+00	7.06E+00	7.06E+00	7.06E+00	7.06E+00	7.06E+00	7.21E+00	2.26E+01
GROUND	6.82E-02	6.82E-02	6.82E-02	6.82E-02	6.82E-02	6.82E-02	6.82E-02	8.02E-02
VEGET								
ADULT	1.78E-02	1.15E-02	5.10E-02	9.67E-03	3.48E-03	8.84E-02	9.52E-04	0.0
TEEN	2.05E-02	1.23E-02	6.82E-02	1.51E-02	5.16E-03	7.54E-02	1.74E-03	0.0
CHILD	3.05E-02	8.35E-03	1.24E-01	2.48E-02	8.10E-03	1.17E-01	3.60E-03	0.0
MEAT								
ADULT	9.05E-04	2.26E-03	1.03E-03	8.75E-04	3.09E-04	1.00E-02	7.63E-05	0.0
TEEN	5.22E-04	1.23E-03	7.62E-04	6.95E-04	2.45E-04	7.27E-03	7.04E-05	0.0
CHILD	5.75E-04	6.27E-04	1.22E-03	8.82E-04	3.03E-04	1.10E-02	8.13E-05	0.0
COW MILK								
ADULT	5.34E-03	1.11E-03	6.30E-03	6.94E-03	3.57E-03	2.82E-01	6.50E-04	0.0
TEEN	5.77E-03	1.39E-03	1.06E-02	1.21E-02	6.25E-03	4.47E-01	1.31E-03	0.0
CHILD	6.09E-03	1.01E-03	2.35E-02	2.04E-02	1.02E-02	8.86E-01	1.38E-03	0.0
INFANT	7.51E-03	1.44E-03	3.72E-02	4.02E-02	1.68E-02	2.15E+00	3.52E-03	0.0
GOATMILK								
ADULT	1.44E-02	9.15E-04	1.57E-02	1.87E-02	7.70E-03	3.39E-01	1.99E-03	0.0
TEEN	1.46E-02	1.20E-03	2.66E-02	3.27E-02	1.34E-02	5.36E-01	3.92E-03	0.0
CHILD	1.33E-02	3.29E-04	5.98E-02	5.50E-02	2.19E-02	1.06E+00	5.93E-03	0.0
INFANT	1.44E-02	9.65E-04	9.34E-02	1.06E-01	3.54E-02	2.58E+00	1.06E-02	0.0
INHAL								
ADULT	1.18E-04	1.91E-04	6.45E-04	1.35E-04	1.24E-04	1.33E-02	2.32E-03	0.0
TEEN	1.17E-04	1.30E-04	7.33E-04	1.83E-04	1.70E-04	1.65E-02	3.45E-03	0.0
CHILD	9.73E-05	7.99E-05	7.44E-04	1.75E-04	1.58E-04	2.00E-02	2.84E-03	0.0
INFANT	5.11E-05	2.91E-05	5.57E-04	1.41E-04	1.02E-04	1.83E-02	1.98E-03	0.0

APPENDIX D

X/Q AND DOSE CALCULATION MODELS AND ASSUMPTIONS

1.0 INTRODUCTION

The transport and dilution of radioactive materials in the form of aerosols, vapors, or gases released into the atmosphere from a nuclear power station are a function of the state of the atmosphere along the plume path, the topography of the region, and the characteristics of the effluents themselves. For a routine airborne release, the concentration of radioactive material in the surrounding region depends on the amount of effluent released, the height of the release, the momentum and buoyancy of the emitted plume, the wind speed, atmospheric stability, and airflow patterns of the site.

In order to evaluate the impact of a nuclear power station under normal operating conditions in a year of "typical" weather conditions, the routine diffusion estimates of effluent relative concentrations (X/Q) within a radius of 50 miles from the station are required. The method of evaluating atmospheric dispersion of gaseous effluents, based on the U.S. Nuclear Regulatory Commission (NRC) Regulatory Guide 1.111 (1976), is described here.

2.0 METEOROLOGICAL DATA

Basic meterological parameters influencing effluent dispersion in the atmosphere are wind speed, wind direction, and atmospheric stability. The following guidelines are used in the categorization of meterological data.

2.1 WIND SPEED

Wind speeds representing the conditions at the actual release height are used when the release is considered to be elevated. Wind speeds measured at the 10-meter level are used when the effluent plume is considered to be a ground release.

2.2 WIND DIRECTION

Wind direction, defined as the direction from which the wind is blowing, is grouped into 16 compass-point sectors corresponding to 22.5-degree sectors.

2.3 ATMOSPHERIC STABILITY

Atmospheric stability is divided into seven categories to represent Pasquill stability classes A (extremely unstable) through G (extremely stable). The method for evaluating the atmospheric stability is based on vertical temperature difference between the release point and the 10-meter level. Criteria for classifying atmospheric stability in terms of Pasquill stability classes A through G are presented as follows:

Stability Classification	Pasquill Category	(degrees)	(°C/100m)
Extremely unstable	A	$\theta \geq 22.5$	$\Delta T \leq -1.9$
Moderately unstable	B	$22.5 > \theta \geq 17.5$	$-1.9 < \Delta T \leq -1.7$
Slightly unstable	C	$17.5 > \theta \geq 12.5$	$-1.7 < \Delta T \leq -1.5$
Neutral	D	$12.5 > \theta \geq 3.8$	$-1.5 < \Delta T \leq -0.5$
Slightly stable	E	$7.5 > \theta \geq 2.1$	$-0.5 < \Delta T \leq 1.5$
Moderately stable	F	$3.8 > \theta \geq$	$1.5 < \Delta T \leq 4.0$
Extremely stable	G	$2.1 > \theta$	$4.0 < \Delta T$

2.4 JOINT FREQUENCY DISTRIBUTION

Joint frequency distributions of wind direction and wind speed by atmospheric stability class are used as meteorological data input for routine diffusion estimates. The compilation of joint frequency distributions is done on quarterly, semi-annual, and annual basis. Wind speeds are grouped according to the Beaufort wind scale (i.e., calm, 1-4, 4-8, 8-13, 13-19, 19-25, 25-32, 32-39, 39-45 and greater than 45 mph). Wind directions are divided into 16 compass-point directions (22.5-degree sectors).

3.0 RELEASE MODE

For nuclear power stations, most gaseous effluents are released through tall stacks, through vents located near the tops of buildings, or through combinations of the two. They are dispersed by variations of wind direction and speed, and by turbulence (mixing action) of the atmosphere. Gaseous effluents released from tall stacks generally produce peak ground-level concentrations near or beyond the site boundary, whereas near-ground level releases produce monotonically decreasing concentrations from the release point to all locations downwind. Under certain conditions, the effluent plume may become entrained in the aerodynamic wake of a building and mix rapidly down to the ground level.

Methods have been developed to estimate the effective release height, which is defined as the sum of the physical height of the release point and the rise of the plume above the stacks, for calculations of effluent concentrations at all downwind locations. The important parameters in these methods include the initial release height, the location of the release point in relation to obstructions, size and shape of the release point, the initial vertical velocity of the effluent, the heat content of the effluent, ambient wind speed and temperature, and atmospheric stability.

The acceptable method that is used to determine the release mode is described below.

3.1 EFFLUENT RELEASE MODE

For effluents exhausted from release points that are higher than twice the height of adjacent solid structures, the effective release height (h_e) is determined from

$$h_e = h_s + h_{pr} - h_t \qquad (3\text{-}1)$$

where h_s = physical height of the release point above the ground;
h_{pr} = rise of the plume above the release point; and
h_t = minimum terrain height above the stack base between the release point and the point for which the calculation is made (h_t) must be greater than or equal to zero).

For effluents released from points less than or equal to the height of adjacent solid structures, a ground-level release is assumed ($h_e = 0$).

For effluents released from vents or other points that are less than twice the height of adjacent solid structures, the effluent plume is considered as an elevated release whenever the vertical exit velocity (W_0) of the plume is at least five times the horizontal wind speed (U) at the height of release, i.e., $W_0/U \geq 5.0$. If W_0/U is less than 1.0, or unknown, a ground-level release is assumed ($h_e = 0$).

For cases where the ratio of plume exit velocity to horizontal wind speed is between one and five, a mixed release mode is assumed, in which the plume is considered as an elevated release during part of the time and as a ground-level release ($h_e = 0$) during the remainder of the time. An entrainment coefficient, E_t, is determined for such cases from the following relations:

$$E_t = 2.58 - 1.58\ (W_o/U) \text{ for } 1 < W_o/U \leq 1.5 \qquad (3\text{-}2)$$

and

$$E_t = 0.3 - 0.06\ (W_o/U) \text{ for } 1.5 < W_o/U \leq 5.0 \qquad (3\text{-}3)$$

The release is considered to occur as an elevated release 100 $(1-E_t)$ percent of the time, as a ground release $100E_t$ percent of the time. Each of these cases is evaluated separately and the concentration is calculated according to the fraction of time each type of release occurs.

3.2 PLUME RISE CALCULATION

Nuclear power stations generally have cold plumes, so that the plume rise is calculated from Briggs' (1969) momentum rise formulae. For neutral or unstable atmosphere, the smaller value of h_{pr} calculated from the following equations is used:

$$h_{pr} = 1.44\ (W_o/U)^{2/3}\ (x/D)^{1/3}\ D \qquad (3\text{-}4)$$

and

$$h_{pr} = 3\ (W_o/U)\ D \qquad (3\text{-}5)$$

where D = inside diameter of the stack or other release points;
W_o = vertical exit velocity of the plume;
U = mean wind speed at the height of release; and
x = downwind distance from the release point.

For stable atmosphere, the results from Equations (3-4) and (3-5) are compared with the results from the following equations:

$$h_{pr} = 4\ (F_m/S)^{1/4} \qquad (3\text{-}6)$$

and

$$h_{pr} = 1.5\ (F_m/U)^{1/3}\ S^{-1/6} \qquad (3\text{-}7)$$

and the smallest value for h_{pr} is used. In the foregoing relations

$F_m = W_o^2 D^2/4$ = momentum flux parameter;

$S = \frac{g}{T_a}\ \frac{\delta\theta}{\delta Z}$ = stability parameter

g = acceleration of gravity; and

T_a = ambient air temperature

The quality $\delta\theta/\delta Z$ represents the vertical potential temperature gradient given by:

Stability Class	$\delta\theta/\delta Z$ (°K/m)
A	-0.020
B	-0.018
C	-0.016
D	-0.010
E	0.020
F	0.035
G	0.050

When the vertical exit velocity of the plume is less than 1.5 times the horizontal mean wind speed, a height correction for aerodynamic downwash C, given by

$$C = 3(1.5 - W_0/U)D \tag{3-8}$$

is subtracted from Equation (3-1)

3.3 DIFFUSION MODEL

The Gaussian straight-line trajectory model, which assumes that the air flow transports and diffuses effluents along a straight line through the entire region of interest in the airflow direction, is modified to account for various modes of effluent releases. In the case of an elevated release, plume rise due to momentum or buoyancy effects is incorporated into the calculation. For those effluents that are entrained into the wake cavity region of a building, mixing of effluent into the wake cavity is usually assumed. The mixing zone can constitute a plume with an initial cross section of one-half or more of the cross-sectional area of the building.

The mathematical equation used in the Gaussion straight-line trajectory model is:

$$\left[\frac{\chi}{Q}\right]_i = 2.032 \sum_j \sum_k \frac{f_{ijk}}{xU_{jk}\Sigma_{zk}} \exp\left[-\frac{1}{2}\frac{n_e^2}{\sigma_{zk}^2}\right] \tag{3-9}$$

$$\Sigma_{zk} = (\sigma_{zk}^2 + 0.5\, D_z^2/\pi)^{1/2} \leq \sqrt{3\sigma_{zk}} \tag{3-10}$$

where
- i = index identifying downwind direction section;
- j = index identifying wind speed class;
- k = index identifying atmospheric stability class;
- $\left[\frac{\chi}{Q}\right]$ = average effluent concentration normalized by source strength at the specific downwind distance;
- f = joint frequency distribution of wind direction, wind speed class, and atmospheric stability class;
- x = distance from the release point to a receptor;
- U = wind speed;
- Σ_z = vertical plume spread with a volumetric building wake correction for a release within the building wake cavity;
- σ_z = vertical plume spread without volumetric building wake correction; and
- D_z = maximum adjacent building height either up or downwind of the release point.

The term Σ_{zk} given in Equations (3-9) and (3-10) is used for ground-level release ($h_e = 0$) within the building wake cavity. For an elevated release, no volumetric building wake correction needs to be considered, i.e., $\Sigma_{zk} = \sigma_{zk}$.

The X/Q dose calculations were performed by means of a computer program XOQDOQ (U.S. NRC 1977).

4.0 GASEOUS EFFLUENT DOSE CALCULATION MODELS AND ASSUMPTIONS

Calculations of dose ratios through gaseous pathways are performed by means of a computer program called GASPAR, (U.S. NRC 1977) which has been formulated according to the requirements of U.S. NRC Regulatory Guide 1.109. The pathways used in the program's calculations are direct plume, ground level deposition, inhalation, ingestion of vegetation contaminated by radioiodine deposition, ingestion of milk from cows which consume the contaminated vegetation, and ingestion of meat from beef that consume the contaminated vegetation.

GASPAR computes both individual doses and population doses. For each case, both building vent releases and elevated stack releases are taken into account when computing the doses. The doses from the building vent releases and elevated stack releases are added together to obtain total dose. The dose calculations for individuals are performed considering four different age groups: infant (0-1 years age), child (1-11 years age), teenager (12-18 years age), and adult (over 18 years age). For each age group and each pathway, radiation doses are calculated for total body, GI-tract, bone, liver, kidney, thyroid, lung and skin.

The analytical methods employed in GASPAR for computing individual and population doses are described in U.S. NRC Regulatory Guide 1.109.